PHYSICIAN SHORTAGES IN COMMUNITY HOSPITALS

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A THESIS SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENT FOR
THE DEGREE OF DOCTOR OF PHYSILOSOPHY
(MEDICAL AND HEALTH SOCIAL SCIENCES)
FACULTY OF GRADUATE STUDIES
MAHIDOL UNIVERSITY
2000

ISBN 974-663-857-2

Thesis
entitled

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Was submitted to the Faculty of Graduate Studies, Mahidol University
for the degree of Doctor of Philosophy (Medical and Health Social Sciences)
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ACKNOWLEDGEMENT

I would like to express my sincere gratitude and deep appreciation to Asst. Prof. Dr. Suphot Dendoung my major advisor for his guidance, invaluable advice, supervision and encouragement throughout this work. He was never lacking in kindness and support. I am equally grateful to Assoc. Prof. Dr. Preecha Upayokin, Assoc. Prof. Pimpawun Boonmongkon, and Dr. Vichai Chokevivat my associate advisors for their constructive comments, supervision and encouragement. They were always kind and friendly.

I thank Mr. Taweesak Sitthiburanaya, Mr. Wattana Lee, my secretaries and all of the officers in Huayploo Hospitals for their moral support and collection of the data.

Finally, I wish to thank my parents, my wife and my children for their moral support during the course of this project.

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3837365 SHMS/D: MAJOR : MEDICAL AND HEALTH SOCIAL SCIENCE: Ph.D.
KEY WORDS : PHYSICIAN/ PHYSICIAN SHORTAGE/ COMMUNITY HOSPITALS

KHONGDEJ LEETHOCHAWALIT: PHYSICIAN SHORTAGES IN COMMUNITY HOSPITALS ADVISORS: SUPHOT DENDOUNG Ph.D., PREECHA UPPAYOKIN Ph.D., PIMPAWUN BOONMONGKOL Ph.D., VICHAI CHOKEVIVAT M.D., MPH. (TULAN), 302 P. ISBN 974-663-857-2.

This study is a documentary research in historical domain to examine the socio-politic contexts of the physician shortage in community hospitals in Thailand and to propose new effective strategies besides the former ineffective ones used for a long time.

The results showed that Thailand has been developed to be a capitalistic state since the 1932 revolution. Past governments were not stable because of many revolutions. They paid more attention to economic policy that could benefit their capital than the public policy such as public health policy. They left government officials in the MOPH being the health policies makers. For these reasons, the health policies were directionless and incoordinate. Many National Health Development Policies were only policies to develop the MOPH. Several strategies written in the plan show incoordination, such as policy to produce the physicians and the Rural Recruitment and Training Project that was not continual although it was partially effective. The policy of allocating new physicians to rural areas did not change and the problem remained

Furthermore, the medical profession dominated in policy making and affected the direction of public health policy directly. The policies used did not interfere with their existing medical system such as using newly graduated physicians in community hospitals. Furthermore, physicians in treatment model who were specialists dominated health policies in the MOPH. This affected the structure and regulation of the MOPH that supported specialists in large health facilities more than GPs in community hospitals. The MOPH supported an insensible brain drain from community hospitals by setting a quota for residency training for all physicians yearly. By undistinguished MOPH rules for incentive payment, the gap between community hospitals and large hospitals was more widened. These led to migration of rural physicians to urban areas and made a shortage in rural areas.

The most important factors were domination of medical professions all over the state and the MOPH policies. The medical associations could debate and direct state and MOPH policies such as production of junior doctors, establishment of new medical schools, promotion of specialist training. The medical associations also affected most physicians' favored specialists. They wanted to be specialists, not GPs to practice in community hospitals and this led to rural physician shortage.

All these factors show that the medical profession had dominated the health policies for a long time and had to be changed. The domination of medical professions must be overturned to balance the medical system and solve maldistribution of physicians in rural areas and community hospitals.

3837365 SHMS/D: สาขาวิชา: สังคมศาสตร์การแพทย์และสาธารณสุข: สด.ด.
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คงเดช ลีโทชวลิต : การขาดแคลนแพทย์ในโรงพยาบาลชุมชน (PHYSICIAN SHORTAGES IN COMMUNUTY HOSPITALS) คณะกรรมการควบคุมวิทยานิพนธ์ : สุพจน์ เด่นดวง Ph.D., ปรีชา อุปโยคิน Ph.D., พิมพวัลย์ บุญมงคล Ph.D., วิชัย โชควิวัฒน์ พบ. MPH.(Tulan), 302 หน้า, ISBN 974-663-857-2

การวิจัยครั้งนี้ เป็นการวิจัยเอกสารเชิงประวัติศาสตร์เพื่อวิเคราะห์บริบททางสังคมที่เกี่ยวข้องกับการขาดแคลนแพทย์ในโรงพยาบาลชุมชนในประเทศไทย

ผลการวิจัยพบว่า การขาดแคลนแพทย์ในโรงพยาบาลชุมชนนั้นเกิดจากการที่วิชาชีพแพทย์ได้แก่ ระบบวิชาชีพเฉพาะทาง องค์กรวิชาชีพ เช่น แพทยสภา สมาคมวิชาชีพแพทย์เฉพาะทางต่างๆ สามารถเข้าไปมีบทบาทเหนือนโยบายด้านสุขภาพทั้งของรัฐ กระทรวงสาธารณสุขรวมทั้งมีบทบาทเหนือระบบวิชาชีพด้วยกัน โดยวิชาชีพแพทย์เป็นวิชาชีพที่มีความเป็นอิสระในการควบคุมกันเองภายในวิชาชีพปราศจากการต่อรองจากภายนอก วิชาชีพแพทย์มีบทบาทเหนือนโยบายของรัฐเนื่องจากการพัฒนาประเทศตามแนวทางทุนนิยมทำให้รัฐบาลไม่สนใจที่จะจัดนโยบายสุขภาพด้วยตนเองเนื่องจากเป็นนโยบายที่ไม่เอื้อต่อการสะสมทุน ดังนั้นรัฐบาลที่ผ่านมาจึงปล่อยให้ข้าราชการกระทรวงสาธารณสุขซึ่งส่วนใหญ่เป็นวิชาชีพแพทย์เป็นผู้รับผิดชอบนโยบายด้านสุขภาพ และจากการที่ผู้บริหารส่วนใหญ่เป็นวิชาชีพแพทย์ส่งผลให้นโยบายสุขภาพโครงสร้างของกระทรวงสาธารณสุข และกฎระเบียบต่างๆ เน้นด้านการรักษาพยาบาลมากกว่าด้านการป้องกัน โดยเฉพาะอย่างยิ่งโครงสร้างการรักษาพยาบาลโดยแพทย์เฉพาะทาง กฎระเบียบต่างๆ การส่งเสริมการศึกษาแพทย์เฉพาะทาง เป็นต้น ปัจจัยเหล่านี้ส่งผลให้แพทย์เคลื่อนย้ายจากชนบทมาสู่เมือง และไม่อยากอยู่ปฏิบัติงานในโรงพยาบาลชุมชนจนกระทั่งเกิดการขาดแคลน

การแก้ไขปัญหาการขาดแคลนแพทย์ในโรงพยาบาลชุมชน จำเป็นต้องมีการถ่วงดุลของโครงสร้างและบทบาทของวิชาชีพแพทย์ในด้านต่างๆ ตั้งแต่นโยบายสาธารณสุขแห่งชาติ โครงสร้างของการบริหาร การบริการ การรับคนเข้าศึกษาแพทย์ การศึกษาต่อเนื่องของแพทย์จนกระทั่งการจัดระบบการจ่ายค่าตอบแทนที่เหมาะสม

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CHAPTER I

INTRODUCTION

1.1 Introduction

The shortage of physicians is a worldwide phenomenon especially in rural areas. Community hospitals in Thailand, as well, have physician shortage problems, and there are several adverse effects from this shortage on the quality of health care service in rural areas. Because the shortage of physicians causes inequities between people who live in rural and urban areas, the gap between them more and more widened and the quality of life of people in rural areas is worsened and may delay national human resource development in the future (Collaborative Project to Increase Production of Rural Doctors, 1995: 1-2). In the community hospital, physicians are expected to serve the community in several dimensions. That is (1) having good clinical competency (2) being good primary health care supporters (3) being managers of clinical and technical workers and (4) being good educators. (Nontasuth, A., 1983: 11-13, Thai) The shortage of physician in community hospitals will have adverse effects in several dimensions also.

This study will show the exact causes of physician shortages in community hospitals that remain constant problems. Although the Ministry of Public Health (the MOPH) has tried to solve them by several strategies, the problem cannot permanently be solved until now. (Collaborative Project to Increase Production of Rural Doctors, 1995: 1, Thai) The study also proposes new strategies to solve the problems yet to be used by the MOPH.

The community hospital is one department of the MOPH that is settled in rural areas, mostly, in the district (amphur). The line of authority of community hospital runs direct through the Provincial Health Office to the Division of Rural Health, Office of Permanent Secretary, MOPH. The aim of setting-up the community hospital is to distribute health care service to rural residents to reduce unequal access to health care services. At first, it was called the "District Health Office" (Sa-than-nee-ar-na-mai-pra-cham-amphur) and after several years of developing to be called the "Community hospital" now (Rong-pha-ya-ban-chum-chon). A community hospital is divided into five levels according to the beds occupied for inpatients, from 10 bed hospital, 30 bed hospital, 60 bed hospitals, 120 bed hospitals not exceed 150 beds. A community hospital has to serve the population of the district (amphur). They are in the front line of health care provision of MOPH. Located within communities and usually easily accessible, community hospitals are in a key position not only to contribute to improved health for the individual but also to foster the development of the community as a whole. Each Community hospital provides curative, preventive, promotive and rehabilitative health services and has official responsibility for the over-all supervision and technical support of health center activities and public health programs in the district in where the hospital is located. A Community Hospital also serves as a referral center at the secondary level of the health care service infrastructure.

Before the first revolution in 1932, transforming the absolute monarchy to a constitutional monarchy, Thailand had no distinctive policy to organize health care services in both rural and urban areas. Since 1932, the revolutionary government only decided to locate hospital in the central district (amphur mueng) of large provinces in rural areas. In the outskirts of the provinces, at first the residents had to donate a half of the construction costs of each hospital, "called Sooksala" and later called District Health Office" (Sa-than´-nee-ar-na-mai), then the government sent a physician or paramedical officers to practice there. Any District Health Office that had a physician was called a first class District Health Office (Sa-than-nee-ar-na-mai-pra-cham-amphur) and others without physicians were called second class District Health

Offices. By the year 1972 it was renamed the Rural Medical and Health Care Office (soon-karn-paat-lae-ar-na-mai-chon-na-bot), and renamed as Medical and Health Care Office (soon-karn-paat-lae-ar-na-mai) in 1974.

After the peoples' a coup d' etat in 1975, there was a great expansion of people' s desire to have a local government hospital in their own district. So, the government responded by renaming the "Medical and Health Cares Office" as the "District Hospital". That time, the district hospital was graded into 10, 30, 60 bed hospital according to occupied beds for inpatients. In 1982, it was finally renamed as the "Community Hospital" (Rong-pha-ya-ban-chum-chon) and regraded to be 10-120 bed hospitals not exceeding a 150 bed hospital. (Handbook of Rural Health Care Administration, MOPH, 1988: 1-15, Thai)

In the fifth national economical and social development plan, 1982-1986, the Thai government had one important health policy which was to locate community hospitals in every district in Thailand. Until now (July 1997), there are a total of 678 community hospitals, 241 of them are 10 bed hospitals, 297 are 30 bed hospitals, 102 are 60 bed hospitals and the other 9 are 120 bed hospitals. (Lists of Physicians' Names in the Community Hospital, MOPH, 1997: 2-5, Thai)

Although the MOPH could expand the number of community hospitals rapidly since 1975, MOPH became overtaxed by the difficulty of finding enough physicians to work in those community hospitals for the equity of rural residents. Now, the MOPH finds more difficulty in recruiting and sending enough physicians to community hospitals because the MOPH cannot educate its own medical students; since 1959, medical student education is the affair of the Office of Prime Minister, although MOPH needs most amount of physicians to serve most of Thai population. Another important factor causing difficulty is the physicians' preference for working in towns instead rural areas. Physician shortages in rural areas became increasingly important until the government claimed the right to manage this problem since 1958

but now the problem cannot be solved. There may be some crucial points that are hidden and need to be identified and applied to solve the problem.

Many people believe that an increased supply of physicians will eventually lead to a better distribution to rural areas. This method has been used for a long time, yet, some MOPH administrators report that an increasing supply of physician must go on to reach a physician to population ratio of 1:1,800 by the year 2020. (Potharamic, Y., MOPH conference, 4 March 1998) Thailand has used this strategy to solve the problem since the first national economical and social development plan to the eighth national economical and social development plan (1961-2000). In the seventh national economical and social development plan, the MOPH has planned to increase the supply of physicians to have a physician to population ratio of 1: 2,000. That means that the current demand is 30,000 but now only 15,000 physicians are avilable that may cause difficulty to distribute enough physicians to rural areas.

After several years of rapid growth in physician supply, by the year 1997, the proportion of physician to the population was 1:4,282 that is near the MOPH expectation but when compared with other countries in Asia, Thailand has a lower physician to population ratio. (Table 1.1-1.2 in appendix)

The physician to population ratio in Table 1.1 shows the maldistribution of physicians and considers it as a part of social inequity as well as a problem in health care management. Most physicians are concentrated in Bangkok and the central parts and let other parts have fewer physicians especially in the northeast; more than half of the physicians are in Bangkok. In the past, most physicians were not not only concentrated in large provinces but also favored practicing abroad, which caused an external brain drain. In response to external brain drain, the government started compulsory public service for physicians in 1967, April 14, and the first batch graduated in 1972. In the first four years (1967-1970), it was a voluntary scheme. The medical students chose to work for three years (including one year of internship in

rural public facilities or paid a high annual tuition fee for US$400 per year for 4 year or US$3,000 at 1997 prices). If they breached the contract, they would have to pay a fine of US$4,800. This fine was increased to US$8,000 and US$16,00 in 1971 and 1973 respectively. On April 23, 1970 this contract became compulsory for all medical students. This strategy became the main factors contributing to the rapid increase in the number of rural physicians during the decade between 1980-1990. On the contrary, this strategy introduced social inequity to the rural residents because they had to rely only on newly graduated physicians. Besides, the MOPH cannot keep these physicians working in rural areas for long periods after three years of compulsory public services almost all move to larger hospital in the town, resign or come to receive continuous medical education to be specialists. This problem has persisted for 27 years after using compulsory public services to medical students and leads to the unequal distribution of physicians between rural and urban areas especially among Bangkok and other provinces (Table 1.3 in appendix). The most severe shortage of physicians is found in community hospitals, leading to hard working for those physicians. (Table 1.5, 1.6 in appendix)

To reducuce health care costs, the MOPH tried to locate different levels of Health Office near communities and develop appropriate referral systems. The Health Offices started from rural health centers to community hospitals to provincial or regional hospitals. The facilities in the rural health centers and community hospitals are primary and secondary care. These levels of health care need no specialist and can save government funds to produce health personnel and personal costs in seeking health care because most diseases can be cured at these levels by general practitioners. The development of existent community hospitals lead to equitable opportunity to reach health care services for rural populations because they could serve more of the populations than higher level hospitals. Then the provincial hospitals and regional hospitals, which serve less population than community hospitals, were free to develop higher technology in health care as tertiary health offices. On the other hand, the MOPH could not develop community hospitals well. There were insufficient physicians in community hospitals. People in rural areas must spend more health care

costs than those who live in urban areas. The most important cause is the cost of travelling to seek the physicians in town despite the fact that most diseases can be cured in community hospitals if there are sufficient physicians (Table 1.7 in appendix).

Despite the increasing physician supply, the physician shortage problem increases the degree of severity. The effectiveness of this measure was negligible during the rapid economic growth in the past decade when a higher proportion of new graduates resigned after one year of compulsory intensive training in the provincial hospitals. The 99 new graduates resigned, causing sudden shortage of physicians, who must go to practice in community hospitals. Many hospitals then had no physicians from 10 bed up to 60 bed hospitals. (Division of Rural Health, 1997:15) (Table 1.8 in appendix)

We can see that the MOPH has only assigned the newly graduated physician to take responsibility for community hospitals for a long time. There are no other strategies to support experienced physicians to practice for long periods in community hospitals as reconstruction of the hospitals, to define appropriate needs of physicians by type of specialty. So most schemes seem directed at the personal level of physicians by laws and regulations, compulsory health service with fines if they breach the contracts are examples. Other examples are increasing incentives and increasing the supply of physicians to send them to practice in community hospitals. By these ways, we see that the MOPH has not tried to solve the problem by holistic method. The MOPH does not see that changing the health system is important to solve the problem. Although 99 new graduates resigned, which caused a shortage of physicians in community hospitals, there are still no new schemes to solve them as a whole.

From these data, there are many doubtful questions to be answered. Will the current MOPH strategies ever create equity in health services? Why can't the government and the MOPH solve the persistent shortage of physicians in community hospitals? Why doesn't the number of physician reach even half of the requirement

although the compulsory method was used for over 25 years? Why don't physicians want to work in rural areas, which causes low physician to population ratios in rural areas? What are the exact causes of these problems? What can be the direct strategy to solve these problems?

There are many data showing that an increasing supply of physicians does not always relate to an equal distribution of physicians in rural areas. Many countries (the USA, Canada, Norway, Japan) can increase their physician supplies until the ratio to population reaches 1:100 to 1: 300 but there are still problems of shortages of general practitioners who are needed in rural and remote areas, and an overcrowding of specialists in towns. These phenomena show that maldistribution is the major problem. (Johnson DR.,Norris TE. (1997) ; Sullivan RB., Watanabe M., Whitcomb ME.Kindig DA. (1996) ; Cooper RA (1995) ; Corner RA., Hilson SD.,Krawelski JE. (1995) ; Tanishara S., Zhang T., Ojima T. et al. (1997); Shrensen R., Rongen G. Grytten J. (1997)

1.2 Rationale for the Proposed Study

This study will show that the former strategies used by the MOPH are not the effective ones. There must be alternatives, which can solve the problem at its primary causes, and change the health care system. Thus, a sociological method of and problem-solving strategies will be proposed in this study to solve the physician shortage in community hospitals in the future.

1.3 Hypothesis of this Study

The main hypothesis of this study is that bureaucratic capitalism has emerged in Thailand. This refers to the use of public policies to set up a health care system that mostly benefits the members of the bureaucracy; civil or professionals. The bureaucrats became board members of various groups of policy makers, from which

they were able to extract personal or group gain. The hypothesis is divided into various concepts (see chapter 3).

1.4 Benefit of this Study

The first advantage of this study is to find the socio-politic contexts of the physician shortage problem in community hospitals that the MOPH has not been able to solve for a long time, although the MOPH sees that it is a big problem that must be quickly solved. (Collaborative Project to Increase Production of Rural Doctors, 1995: 1, Thai)

The second benefit is to propose new different strategies that can truly solve the problem at its roots.

1.5 Methodology

This study is based on document research. The primary sources are derived from places as the Ministry of Public Health, National Statistic Office, etc. The data comprise texts on health care system management, medical student education, physician supply production, rural health policy, and methods for solving the physician shortage. The secondary sources are books, theses, journals, and newspapers, both in Thai and English.

The study employs the analytical descriptive method with statistical calculations to support descriptive data. The theoretical framework is derived from the concept of political economy.

1.6 Structure of this Study

This study is organized as follows:

Chapter one deals with introduction, objectives, and the methodology of the study.

Chapter two is the review of literature on the concepts and strategies used for solving the physician shortage problem in the past.

Chapter three deals with how capitalism and bureaucratic capitalism interfere with health care management in rural areas, the conceptual framework of the study, materials and method of this study.

Chapter four deals with the research methodology that is mainly historical documentary reseasch.

Chapter five deals with indicators of physician shortage measurement in various countries compared with this study.

Chapter six deals with how the state policy of health care management relates to capitalism and bureaucratic capitalism that affects the physician shortage in community hospitals.

Chapter seven deals with how the MOPH, state's policy of health care management relates to capitalism and bureaucratic capitalism that affects the physician shortage in community hospitals.

Chapter eight deals with the affect of physician professionals are on the MOPH, state's policy of health care management relates to capitalism and bureaucratic capitalism that affects the physician shortage in community hospitals.

Chapter nine deals with the conclusion of the empirical data from the previous chapters then closes with discussion and recommendations. New strategies to solve the problem are proposed.

CHAPTER II

REVIEW OF LITERATURE

Community hospitals are the front line of medical and health services of the MOPH to introduce equitable modern medical care to those in rural areas. The other objectives are to reduce the gap between urban and rural areas in reaching modern medical care. Community hospitals can serve the community in several aspects as (1) medical care (2) health promotion (3) disease prevention and sanitation and (4) rehabilitation. Community hospitals are idealistic organizations of the MOPH because they are close to the community. They can promote nearby population to have good health besides treatment. By using health promotion technique community hospitals can provide better service than higher level hospitals, with more effective methods, and at lower cost than disease treatment to lead the population to enjoy good quality lives.

The MOPH has tried to use many strategies to distribute physicians to rural areas and to keep them practicing in hospitals for longer periods than the time of compulsory, but has failed after using these strategies. Sometimes these strategies show that there is disagreement between administrators and subordinates. Thus, the MOPH cannot solve the shortage of physicians in community hospitals permanently, until now.

This chapter reviews and proposes causes and ideas for solving this human resource problem from several sources and tries to group them together. They are categorized by sociological method into different paradigms. These are as follows:

1.State bureaucratic and administrative.

2.Organization

3.Psychological

4.Economical

5.Professionalism

6.Criticism of above paradigms used from the past

7.Proposal of new problem-solving methods

2.1 State Bureaucratic and Administrative Paradigm

Community hospitals are state public sector organizations. All of them are non-profit organizations under the MOPH. They work as mechanisms and are controlled by government policy. Thus, it is necessary to examine the governments' philosophy in providing medical and health services for the population especially in rural areas. Because the community hospital is one mechanism of government, they are always directed by a bureaucratic type of administration.

Managing the physician shortage problem in Thailand in the past was based on the bureaucratic type of administration. There were two major revolutions in Thai administration, the first was in 1892 in the reign of King Chulalongkorn (King Rama V), and the second was in 1932 by the People's Party, in the reign of King Prapokglao (King Rama VII). Both revolutions in administration lead to new social classes especially in 1932, when Thailand changed from absolute monarchy to constitutional monarchy. The power of state regulation had been transferred into new ruling classes followed by several competitions between different ruling classes. However, every ruling class stated that they all worked under the monarchy and the King remains the highest chief of the nation. Some technocrats designate the Thai State as a Three-dimensional Thai State. (Samuthtavanich, C. 1992: 199, Thai) This chapter will apply the idea of the Three-dimensional Thai State to explain the causes of the physician shortage problem and the ways to solve them.

Thailand had no public sector health care management before the reign of King Rama V. After the king had reformed his government, except for the nation's

security, the policies of development and democracy were included in the government policy. Since then the Thai government developed new mechanisms of administration called "bureaucracy" and used it as a main mechanism for administration and regulation. Therefore the obligations in development preserve the Thai State and let the Thai State adapt itself to the change in world politics and economy. Samuthtavanich, C. (1992) called this type of state as three-dimensional Thai State.

Health care system management is one obligation that governments include to serve to the population. There was an attempt to extend the health care system to the rural area but how to do this, many laws and rules were created. These laws and rule made the government worked clumsily and their policies could not adapt to the constant social change. (Samuthtavanich, C. 1992: 200-277, Thai) On the contrary, the ideas to include health care management under government obligation introduced centralization and the idea of dependence by the population. Soon the people lost their power of health self-care and only depended on government health centers. Centralization also led to ineffective administrative methods, although there were attempt to increase the number of community hospitals and health personnel. Thus, the more the government built community hospitals; the more physicians were lacking from the community hospitals.

In the reign of King Rama V, before 1 April 1893, the central government had no policy to incorporate health care management in the circles (hua-mueang or mon-thol) because the governors of the circles could do it themselves. Most health care systems were traditional medical care; there were some by missionaries that used more western medicine. After that King Rama V decided to change the administration of Siam (Thailand now) by centralizing the government for the sake of independence and unity. Around those years, Great Britain and France tried to invade Siam. By the year 1885, Great Britain could completely invade Burma and France could invade Cambodia and Vietnam from 1863 to1885, King Rama V and a group of the king's servant (young Siam group or sa-yam num) unanimously agreed to develop the administration to modernize Siam to protect it from western colonial power.

(Prajchayapreit, T.1993: 25-26, Thai; Samuthtavanich, C.1992. Ibid: 185-277, Thai) There were several new bureaucratic organizations developed to take responsibility of the state's obligations that included public health care services. First, public health care service was under the command of department of Doctors (Krom-moh), and this was the original idea to expand government public health care services to people. Hence the people seem to depend on their government in every aspect, not only for health care services, and the government could direct and control them under their central policies. By this dependency, cultural variations of health care were neglected, and replaced by western style medical services supported by the government. (Samuthtavanich, C.1992: 201-202. Ibid.)

Though the state policy had changed, during 1922-1932, the government still did not try to construct any hospitals in rural areas because method of collecting taxes then did not generate enough budget. The plan to locate hospitals in rural areas was to urge locals to establish their own hospitals, mostly from donations. (Samuthtavanich, C.1992: 208-213. Ibid.) Initially the government had hospitals only in large provinces as Ranong, Phra Nakhon Si Ayutthya, Nakhon Ratchasima, Chiang Mai, Songkhla, Suphan Buri, and Nakhon Sawan but at that time the rnment did not supply any budget or personals. This caused difficulties to these hospitals to work efficiently. (MOPH 50 years memorial, 1993: 49, Thai)

After the revolution in 1932, the People's Party became the new leader that absolutely controlled all political, military, information and natural resources. This event introduced a new social class to Thai society because they were state capital and policy controllers besides the king. This was the ruling class but they were not the traditional or charismatic dominators. So they created laws and new organizations to backup their own power; this was called legal dominators. The organization created then was bureaucracy and they defined new obligations of state by adding the dimension of economics, education, culture, as well as social service as part of health care services. (Samuthtavanich, C.1992: 60-61. Ibid.)

Public health policy was a new policy added into government policies to make people accept the new administrative methods and the way they received power. After that, the government tried to locate health care centers in rural areas and to distribute health personnel to serve the rural. The easiest way to distribute health personnel was to force them by rules, especially physician distribution. Coercion of newly graduated physicians was easier than the older graduated ones, and so it was used for a long time. There were a few other schemes used for this reason. We can divide governmental policies that affect the physician shortage in community hospitals into two schemes as follow:

2.1.1. Policy about increasing numbers of rural health centers, e.g., community hospitals.

2.1.2 The policy about physician distribution to rural areas

In defining the new obligations of the government, most were defined in term of government required service for their people. The government had to establish their mechanism for archieving their objectives, which was bureaucratic administration or bureaucracy. The governments used their authority through bureaucratic administration. So, economical development, education, cultural administration and other public services including health care service were to be government' duties. This lead to centralization of the government and lessened people' s power to care for themselves. (Prasertkul, S. In Lhaodhammatat, A. et. al., 1995:121)

Although, the governments tried to establish a provincial hospital in every province, in the early stages, the governments established them along the borders for the sake of prestige. The provincial hospitals established then were in Ubon Ratchathani, Nong Khai and Nakhon Phanom. All of them operated from budgetary funds. In contrast to medical care in district and subdistrict areas, people must donate half for construction, then the government will send midwifes or junior sanitarians to practice there. This was called second class rural health centers (suk-sa-la chan song) and was the origin of the community hospital.

After 1942, due to World War II and the unstable political climate, the government asked for justice by making policy of distributing health care centers to rural areas for the stability of the nation. This policy had direct effects on physician distribution as described below.

2.1.1 Rural Health Care Center Establishment Policy

Five years after the People's Party revolution, Field Marshal P. Pibulsongkhram was designated as Prime Minister who formed the cabinet to rule the country since 1937. Health care affairs were scattered among several government departments as the Ministry of Interior, public hospitals of the central government and hospitals of local government (su-kha-phi-bal). Meanwhile, there were several events that made the government give more importance to medical affairs than in the past. Those are protesting to call for lands that France had plundered; the Second World War involved Thailand in 1941 when Japan invaded Thailand and left a short supply of medical supplies and health personnel. Thus the government needed to develop health affairs by integrating scattered ones together. By a resolution of the committee for medical affairs development, appointed in 1942 February 7, the Ministry of health was established in 1942 March 10 to take responsibility for the abolished Thai Red Cross Association and University of Medical Sciences Department as well as the Department of Medical and Health. In 1942, when Field Marshal P. Pibulsongkhram was designated as Prime Minister for the second time, his government declared to establish more heath care centers both in urban and rural areas, e.g., rural health offices (Suk-sa-la), general hospitals in provincial level and hospitals for specific diseases as malaria, venereal diseases, tuberculosis and leprosy. (MOPH 50 year memorial, 1993: 55, Thai) The later government administrations continued the policy to establish rural health offices in their plans. Those were the governments of Mr.Pridi Phanomyong (24 March 1946, 11 June 1946), Luang Thamrong Navasawat (24 August 1946, 31 May 1947), Field Marshal P. Pibulsongkhram (6 December 1949, 6 December 1952 and 21 March 1957) and Major Gen. Thanom Kittikhachorn (1 January 1958).

Community hospitals began after the people's coup d'etat in 1973. There were extensive demands to have nearby hospitals in rural areas. Mom Rajawongs (M.R.) Seni Pramoj' government, in1976, then declared to set up district hospitals in every district and rural health offices in every subdistrict within four years. Thus the government could choose the easiest way by upgrading Rural Medical and Health Care Offices (soon-karn-paat-lae-ar-na-mai-chon-na-bot) to be community hospitals by name changing. There were no other plans in supporting health personnel to practice in those places. The following governments, Mr. Tanin Kraivixien (29 October 1976), General Kriangsak Chomanan (1968, 1978), General Prem Tinsulanonda (1983, 1990) and other following ones, continued this policy. Due to increasing number of community hospitals, more physicians were needed and divided among different hospitals, leading to an insufficient supply of physicians. So this policy led to a physician shortage in community hospitals until now.

2.1.2. Legitimization of Authority Policy and Compulsory Public Health Services for Physicians

After increasing the number of community hospitals, the government found difficulty in sending physicians to work there for supporting their policy. Most physicians didn't want to work and stay in rural areas. Most liked to work in large towns or go abroad for further education. Around those years the government had neither plans nor policies to manage with physician distribution to rural areas, so the government did not succeed in its objectives. Later government administrations began to study the obstacles and begin to use the power of authority to command physicians by legal authority. (Weber, M. in Ritzer, G. 1983: 136)

One reason for the rural physician shortage problem in the past was the low capacity to produce new physicians of university medical schools. (Table 2.1 in appendix) There were only two medical schools in Bangkok, the Faculty of Medicine at Siriraj Hospital and Chulalongkorn Faculty of Medicine, The latter was established in order to increase the pool of physicians later.

In additional to insufficient physicians, the pattern of working in large towns was another problem. The government tried to establish new medical schools as well as compel newly graduated physicians to work in rural areas after graduating from medical schools. These ideas were firstly seen in Mr. Pridi Phanomyong's governmental policy (24 March 1946). In Major Khuang Abhaiwongse' s governmental policy, it was intended to have specialist in remote areas (10 November 1947).

In the study of M.R. Thanyabhak Sobhon about Thai physicians working abroad, he found that, by the year 1969, 1,178 out of 5,032 Thai physicians (or about 20 per cent) were working abroad. About 50 per cent did want to permanently practice in the USA while about 11.9 per cent of Thai physicians were inclined to go abroad also. (Sobhon, T. M.R. 1971: 84(1)-84(18))

For these reasons, the government started compulsory public service by physicians in 1967 in response to the external brain drain as follow:

2.1.2.1 The first four years (1967-1970) was a voluntary scheme. The first cabinet's resolution on 14 April 1967 acted on the third year medical students who would graduate in 1970. The medical students chose to work for three years in rural public facilities (including one year of internship) or paid a high annual tuition fee (US$ 400 per year for four year or US$ 3,000 at 1997 prices). If they breached the contract, they would have to pay a fine of US$4,800 or three times the tuition fee. This was an unjust scheme for medical students who came from lower income families; they could pay neither tuition fees nor fines. This differed from those who came from higher income families. (Author)

2.1.2.2. On November 21, 1967, the Department of Prosecution recommended to the cabinet to use compulsory for all medical students.

2.2.2.3. By the cabinet' resolution 23 April 1968, this contract became compulsory for all medical students.

2.1.2.4. The fine was increased from US$4,800 to US$8,000 and US$16,000 on 8 December 8, 1971 and April 17, 1973, respectively.

The attempt to increase the fine was strongly opposed by the medical schools. The overt reason was that increasing the fine would increase the unfair treatment posted to medical graduates when compared to graduates in science, engineering and other fields. (Viriyavejakul, A. 1980: 443-444, Thai) However, one covert reason is that many medical student parents and relatives are teaching staff. The other more important reason is that increasing the fine would most likely reduce the number of graduates who are ready to breach the contract and pay the fine. This will reduce extra income to the university since the fines all go to the university rather than back to the central public funds. (Wibulpolprasert, S. 1999: 13, Thai)

Because the government forced the third year students in 1967 to accept the contract, they were not willing to follow the contract. There was some rejection from medical students but it was not effective. The contract went on. (Medical Society Journal, 1970: 676) By enforcement, this scheme was effective only in the period of compulsory. When the period was completed, most physicians moved from community hospitals to larger and more comfortable hospitals in towns or studied to be specialists, widely opened by Thai Medical Council. (6^{th} batch compulsory doctor, 1981: 15, Thai) Working in community hospitals was hard work and required more effort and willingness to archieve the MOPH's policy. (Nameless compulsory doctor, 1981: 5-6, Thai)

We can see that enforcement by legal authority and bureaucratic administration causes the constant problem of rural physician shortage. The physicians work in the community because they are forced. They have no will to work in community hospitals after the period of compulsory service. Then, when the government tries to establish more hospitals or develops public western style of medical care; more physicians will be drawn from community hospitals or rural areas. Thus the government must try to use new methods of compulsory services and use serious punishment to those, who

breach this contracts such as increasing the fine up to US$120,000 (1997 price). The fine at this price has not yet used. The policy that only sends newly graduated physicians to community hospitals is not fair for the rural residents because they have more disadvantages than urban residents who have plentiful health care services.

2.2 Organization and Administration Paradigm

The community hospital is a division of the MOPH, which is one type of bureaucratic organization. The meaning of organization is a social unit that unites all members together. The members of an organization create their organization to achieve some goals. The effective organization is one that can manage its goals effectively. (Katz, Kahn, 1996; Parson, 1960 in Borwornwathana, P. 1993: 142-143, Thai)

There are no organizations that can manage their goals independently, especially in a bureaucratic type of organization or bureaucracy. Bureaucracy is centralized. The policies, plans and the strategies are directed from a central government. Sometimes there are dissociations between policy makers and workers. The dissociations can be clearly seen between professionals and the politics that cause the ineffective allocation of resources. (Heydebrand, 1977: 98-99) If we want to discuss the physician shortage in community hospitals we must explore external factors that affect them also. These external factors are as follows:

2.2.1 When establishing the MOPH, the government did not truly want to take medical services to their people. It came from changing the state mechanism from only security to development also. The government used developmental policy to control any challenge to the state. The public health policy, used by the former government, was to make the people accept their coup from the King and to save lives to increase national production. To reach this objective the government rapidly increased civil servants in public health more than other lines but on the other hand the government did not intend to distribute resources justly to the rural areas.

(Samuthtavanich, C.1992: 257-258, Thai Ibid.) The MOPH also does not distribute resources fairly to develop rural health care services; most budgets were used to enlarge the MOPH itself. Although the MOPH has the goal to lead the people to the best quality of life, it does not originate from its own policy but from international policy. (Hongwiwat, T. 1988: 69-72, Thai) So when the MOPH established community hospitals, it was not from the need of the people but from the need of MOPH to enlarge itself, like other public services as police stations or district government offices. The officers do not relate closely to the people and avoid rural areas. (Bhrammani, S. 1988: 95-98, Thai)

2.2.2 Effective organizations should have both good internal and external infrastructure that can support their work. The infrastructure is the basic, constituent of each organization, and the resources they can afford. Effective public organizations must have the best management for the best social gain. (Borwornwatana, P. 1993:150-151; Chamnong, V. 1993: 169-198, Thai)

2.2.2.1 Creating of community hospitals in the past was not from a sincere policy to serve the people. Transplanted physicians could not adapt themselves to nearby community, or work efficiently. So to achieve the highest goals of each organization, there must be flexible regulations that ease community responsibilities.. In contrast, community hospitals must follow the will of the people; it came from the people's demand after the coup. Thus the law and the regulations to support the community hospitals are not flexible. In community hospitals there is bureaucratic discipline, there are multiple lines of command to be followed, and human resources, budgets and incentives do not correspond but vary with the size of the hospital set by the MOPH. The physicians in community hospitals work harder than those in larger hospitals, take more responsibility for the community than other civil servants in nearby rural areas but receive less incentives when compared to their responsibilities. This is one cause of physician drainage from community hospitals. Thus, there must be different rules for different bureaucratic organizations that vary with the responsibility. (Rojanasathien, B. 1988: 72-75, Thai)

2.2.2.2 A lack of adequate support is another cause of physician shortage. Work in community hospitals should have adequate support from related organizations such as the Provincial Health Offices and Provincial Hospitals. Community hospitals lack knowledgable and willing staff, equipment, and funds. Provincial Health Offices and Provincial Hospitals ought to be good supporters or advisers for physicians in community hospitals to work well and efficiently. (Nameless compulsory doctor, 1981: 5-8; 6th batch compulsory doctor, 1981:15-16, Thai) If there are inadequate supports, physicians cannot willingly work in community hospitals and move away resulting in a lack of physicians. (Teambhakvisit, P. 1981: 13, Thai)

2.2.2.3 Unjust resources allocation between urban and rural areas causes shortages in rural areas, causing a migration of people from needy rural areas to fertile urban areas. Unequal allocation of health resources also causes differences between urban and rural health facilities. In urban areas, there are more larger hospitals, higher educated people, higher education, more medical equipment, and higher ranks of job classification. Thus, rural physicians move into urban areas for those reasons and let the community hospital lack physicians. For these reasons, the MOPH must improve the climate in community hospitals as the climate of work, technology, coworkers, as well as improve the national health care system to support working in community hospitals. (Ambhanwongse, S. 1991: 29-32, Thai)

2.2.2.4 A lack of coordination between policy makers and workers leads to an imbalance in physician distribution. There are several units that are physician users. In the past, there was no coordination between these units, Each claimed to have more physicians and alleged that there was a shortage of physicians in their units; then did not plan the national health personnel needs together. So there was not coordinated strategic planning to solve the shortage problem. (Wongrakmit, B. 1991:35-38, Thai) Thai medical service has no specific direction. There is no policy to unite medical services in different organizations, so the medical services are the responsibility of several sections. The most powerful in developing medical services are larger

hospitals, especially in medical schools not the MOPH. Thus, medical services are directed to use higher and higher technology that needs specialists to manage. These affect the national health system because it was created to supported specialists more than general practitioners. In this system, specialists progress in their positions higher than general practitioners (GPs). In general, GPs can serve more of the population than specialists because more than 90 per cent of diseases are curable by GPs. To train specialists has a higher cost than GPs. When physicians become specialists they cannot practice alone then they do not want to further work in community hospitals. That is not suitable for Thailand and causes physician shortages in rural areas. (Wasee, P. (1978) in Thai medical record, 1985: 229-232, Thai)

For these reasons, poor public health planning and no distinct strategies for supporting physicians who work in community hospitals leads to indistinct facilities and flexibility of community hospitals. Physicians in community hospitals seem to to be neglected by the MOPH and they try to escape from the community hospitals as soon as they can. Most of them go to higher and better administrative places, especially private hospitals. Thus, the MOPH could not solve the problem if they use ineffective strategies.

2.3 Psychological Paradigm (Motivation Theory)

Motivation theory explains that any person will do well or badly in any situation if there are either intrinsic or extrinsic motivations. These motivations will initiate, control and support the behavior of that person. There are many persons who have tried to explain why physicians leave community hospitals by analyzing individual level. These are psychological factors and proposal to support the morale of physicians when they work in community hospitals. These are as follows:

2.3.1.Disagreement in the community hospitals between different levels of the officers lead the physician lose interst in their work because they must be leaders of that hospital and take duties in several aspects, which is quite a handful. That led to

hospital staffing shortages for long time. (Teambhakvisit, P. 1981: 13, Thai. Ibid.) This is why the MOPH use the incentive technique but it cannot solve the problem because human relationships in the organization are more important than the any incentives. (Navikarn, S. 1997: 292, Thai)

2.3.2.Motivation from success in the work is one of the cited reasons. Through the Human Resource approach, any people will succeed in their works if it corresponds to their needs, e.g., economic need, social need, accomplishment need or prestige need. Also, the success of the work depends on the autonomy of the persons in the organization. (Douglas McGregor, In Navikarn, S. 1997: 293, Thai Ibid.)

Physicians in the community have less chance to progress than those in other parts of the MOPH, because the MOPH system does not support GPs. Most physicians in community hospitals are GPs and work harder than others in the larger hospitals of the MOPH. Working in the community cannot support their needs especially for those with children and their children also have less opportunity for education quality. So, they move away from community hospitals to more comfortable areas. (6^{th} batch compulsory doctor, 1981: 16, Thai Ibid.)

2.3.3. The Argyris Maturity Theory states that good decisions of any person need maturity. (Argyris C., In Navikarn, S., 1997: 295, Thai Ibid.) Many strategies to solve the problem are based on this idea. Medical schools ought to add special training program to produce adequate physicians for work in rural areas. That is a good intellectual and judgement to set work priorities, a willing spirit even in difficult situations and social empathy. To produce new graduate physicians who have these qualities, good human relationships, ability to work well with other people, good will, ideals and skills to practice in rural areas must be promoted. (Suwanwaela, C. 1988: 93, Thai) These qualified physicians will be able to practice in the community with empathy. They will not try to change the community to serve their goals but will support the community to achieve its goals. (Pinthong, J. 1991: 28-29, Thai) If the physicians have adequate maturity, when they find any obstacle, they can treat that

obstacle without discouragement. This factor is necessary in working alone in community hospitals for a long period that have less medical equipment than medical school. (Suwanwaela, C. 1988: 93, Thai Ibid.)

2.3.4. Maslow's Hierarchy of Needs Theory claims that people work to achieve the necessities of life. These are psychological needs, social needs, esteem needs and self-actualization needs.

2.3.4.1 Psychological need refers to people who want to work in a warm and comfortable climate. There is adequate and modern equipment and adequate budget to support quality work and both physical and psychological security. Community hospitals rate low in these areas, so they cannot maintain physician for long period. (Navikarn, S. 1997: 298 Ibid.; Phalanggoon, O. 1977:291, Thai)

2.3.4.2 Social need refers to people who live in society and must contact other persons. They want to have friends, need acceptance from everyone and want to share in activities with society, makeing the person live well in society. (Navikarn, S. 1997: 299, Thai Ibid.) Social needs are good factors if physicians have appropriate needs but exaggerated needs and acceptance from the society, sometimes have reverse effects on the physicians. Those reverse effects cause the physicians to leave from the community hospitals. In community hospitals, the physicians are accepted to be leaders in several dimensions: they are accepted be leaders of the health team, they must work well in health promotion and sanitation, they must be good administrators, they must be good developers, they must be good educators to every person and they must be the health representative in each ceremony in the district. So, over social acceptance creates difficulty in this climate. (Bhrammani, S. 1988: 93, Thai) The social expectation that physicians must have good character. They are expected to be polite to everyone, carefully examine patients and listen to the patients' complaints enduringly, to serve the patients as soon as they need and in any place, have no greed but much mercy, never deny the patient if they want to go to other hospitals and constantly practice either in privately or officially. (Chudam, P. 1978: 573, Thai)

2.3.4.4 Esteem need refers to people who want to gain respectfulness and praise from others. (Navikarn, S. 1997: 299, Thai Ibid.) Physicians' value also are being the educated leader of any party, having high prestige, having advance degree from foreign countries and having the ability to set themselves up within five years after graduation. (Chudam, P. 1978: 573, Thai Ibid.) When community hospitals cannot serve their needs, they move to other hospitals that can and leave the community hospitals behind.

2.3.4.5 Self- actualization needs refers to people who want to succeed by their own effort and abilities and reach their potential. They want to work in place that fulfills their opportunity. (Navikarn, S. 1997: 240, Thai Ibid.) Community hospitals are managed with clumsy and outmoded rules; so active physicians are bored to work there, because they can not show their highest ability in bureaucratic community hospitals. Meanwhile, private hospitals allow individual growth and pay them according to their work. The active physicians go to the private sector and leave only the non-active ones in community hospitals. (Bhanich, W. 1991: 23-24, Thai)

2.3.5. Herzberg's Two Factors theory claims that anyone will work well if there are suitable factors in the office. These two factors are hygiene and motivation. In community hospitals also, these factors are important ones.

2.3.5.1 Hygienic factors are about office environments such as security of work, status, human relationships in the office with the coworkers, salary, etc. (Navikarn, S. 1997: 310, Thai Ibid.) To work well in community hospital hospitals, payment to physicians must correspond to their works to motivate active work. (Sarasombat, Y. 1991: 32-34, Thai) However, payment in community hospitals now does not correspond to the heavy responsibilities. The physicians who remain in community hospitals ought to have high a sense of humanity and high commitment. (Rochjanasathien, B. 1988: 73, Thai)

2.3.5.2 Motivation factors involve content and the type of work, expansion of the office, progress in duties, the responsibility, recognition and success in the work. If the community hospitals cannot provide these factors, when physicians face obstacles and lack willingness to work in rural areas, they can easily leave community hospitals. This contributes to the community hospitals'shortage of physicians. (Suwanwaela, C. 1988: 94, Thai Ibid.)

Thus, motivation is one of the common factors that make physicians work well and happily. They ought to be delicated in their profession and sympathize with their patients as an everyday practice. This is the way to work in community hospital and practice in rural areas for a long term. (Wongrakmit, B. 1991:35-38, Thai Ibid.)

2.4 Economic Paradigm

The targets of this paradigm are supply and demand of physicians. They explain that there will be a shortage if demand exceed supply. Some explanations for the shortage of physicians are when demands of physicians exceed the facilities of physician education and the cost of medical education is very high while the return is lower upon graduation, causing low morale.

However, the medical profession is not same as other professions. It is not a true free market. There are several limitations to engage the medical profession, which are the medical council's rules. There are only few graduated physicians joining this professional yearly. We can divide the physician shortage into two types.

2.4.1. The first is dynamic shortage. This shortage occurs when there are high physician demands but incentive payments and salary are very low. The incentive payments also do not suit heavy responsibilities and physicians will work in other places that have suitable incentives like private hospitals. The gap between community hospitals and private hospitals is widened more by this reason while the shortage of

physicians in community hospitals becomes more critical. (Bhanich, W. 1991: 23-24, Thai Ibid.)

This type of shortage will disappear if more physicians are put into community hospitals or increases in incentives are made. (Arrow, C. In Feldstein P.J., 1983: 358-379; Yett D.E., 1975: 45-76) To provide incentives for physicians who deliver rural services, the government started special allowances for district hospitals (the former name of community hospitals) in 1975. There were two rates of allowance. For regular districts the rate was US$60 per month for the first year, and US$68 per month from the second year onward. For more remote areas, the first year allowance was US$80 per month followed by US$88 per month from the second year onward. These allowances were approximately equal to the monthly salary of newly graduated physicians. These allowances were later on, in 1983 increased to US$ 80 and US$88 for regular districts and US$100 and US$108 for remote districts. These allowances prohibited rural physicians from accepting any travel per diem or on call payment.

It was not until the rapid economic growth with the resultant growth in the private hospital sector and internal brain drain. The rural doctors association of Thailand used this idea by stimulate the MOPH to set rules for further allowances, as travel per diem and on call payment, have been allowed for rural physicians since 1991. In 1994, the MOPH allowed travel per diem and on call payment for rural physicians. In 1995 to increase productivity, the MOPH allowed any physician in the MOPH who agreed not to engage in private practice) to receive a non-private practice allowance of US$400 per month and allowances for non-official hours emergency services with special workload payment. But these are rather late, with inefficiency and unfair implementation (See chapter 7).

Finally in October 1997, the government increased the special rural allowances from two levels to three levels. Physicians in regular districts received US$55 and US$62 per month (reduced because of devaluation). Those in more remote districts received US$250 per month, and those in the remotest districts received

US$500 per month. Although the MOPH had used the incentives of increased allowances for many years, it could hardly relate to the length of time of rural work. It only makes it easier to use the adequate income of graduates for paying the fines for breaking the three-year contract, and moving to the urban centers.

2.4.2.Static-shortage is caused by an imbalance of marketing because the supplies cannot meet the demands either through inadequate production or the supplies do not engage the markets. The shortage of physicians occurs when the government sector cannot pay salaries as high as the private sector. In addition to the low incentives, increasing supplies of physicians have entry barriers due to professionalism. (Feldstein, P.J. 1983: 358-379) This often occurs in oligopsonistic markets especially in the productive section. (Archibald, G.C. In Yett, D.E. 1975: 77)

To permanently solve static shortage, changing the manpower market either to increase production or decrease entry barrier as well as change the rules for paying allowances needs to be done. (Feldstein, P.J. 1983: 366) In the past, the Thai government tried to increase physician production by establishing new medical schools as follows: the Faculty of Medicine at Siriraj Hospital(1889), the Chulalongkorn University Faculty of Medicine (1947), Chiang Mai University Faculty of Medicine (1959), Faculty of Medicine at Ramathibodi Hospital (1962), Khonkaen Faculty of Medicine (1972), Prince of Songkhla Faculty of Medicine (1972), Pramongkutglao Faculty of Medicine (1977). Also, by the year 1989, the government allows private sectors establish Rangsit Medical School, which is the first private medical school in Thailand. The purpose of increasing physician production is to fill the physicians into rural areas but without any other strategies to persuade them, the MOPH cannot fill the physicians into community hospitals now.

To further increase production of physicians, the MOPH tried importing Thai physicians who graduated from foreign countries to only practice in governmental hospitals by giving transient licenses. (Phaosawad, A. 1997: 4) Also, the MOPH allows their hospitals to hire superannuate physicians working in the hospitals by using

the same clues as in overseas graduates, which is paying the salaries from the hospitals' fund. (The Committee on Public Health in the Senate, 1997: 7, Thai)

Increasing numbers of physicians alone, without other supporting strategies, does not ensure that these physicians will work for a long time in community hospitals. So, it is not a permanently strategy for solving the problem.

2.5 Professionalism Paradigm

Medical professionalism is the result of highly advanced medical science and technology. This leads to a special culture confined only to professionals. Physicians have a distinctive legitimacy that lends strength to their authority. They claim authority, not as individuals, but as members of a community that has objectively validated their competence. The professional offer judgment and advice not as a personal act based on privately revealed or idiosyncratic criteria, but a representative of a community shared standards. The basis of those standards in the modern professional is presumed to be rational inquiry and empirical evidence. Professional authority also presumes an orientation to specific, substantive value of health. (Starr, P. 1982: 12)

The professionals have power to rule themselves or other professionals, which is called social authority and cultural authority. Social authority and cultural authority differ in several basic ways. Social authority involves the control of action through the giving of commands and exercises to nurses, technicians, and other subordinates in the medical hierarchy. This type of social authority is primary social authority. The other is exercising social authority where physicians give instructions or advice to patients. Cultural authority is the authority to interpret signs and symptoms, to diagnose health or illness, to identify diseases, and to offer prognosis. By shaping the patient's understanding of their own experience, physicians create the conditions under which their advice seems appropriate. Then the medical authority is so

intimately related to general change in the basic beliefs of community. (Starr, P. 1982: 13-17)

Professionalism in Thailand began in the reign of King Rama V. It was the result of development in education that increased opportunity for both men and women to enter the profession as well as education seek. The King reformed the government in the year 1892 and there was an increase in the number of professions and special interest groups. They were in active organizations of teachers, engineers, physicians and nurses. Most of them were in government jobs and successful, so they were able to be leaders of Thai education and practices in western style. (Prachyapreit, T. 1996: 102-147, Thai)

The establishment of Siriraj Hospital in the reign of King Rama V initiated medical professionalism western style of medical care. Since then Siriraj Hospital took on the leadership of medical education in Thailand. Even though there were other medical schools later, all of them used Siriraj Hospital's pattern of education. The medical education, which uses highly advanced western type technologies in medical schools, has both advantages and disadvantages to rural medical practice especially in community hospitals.

The western type of medical education induces the physicians' preferences to be specialists and not general practitioners. Also it induces physicians' interests to look after only the disease not the patient as a whole, so humanistic approach and spiritual aspects are neglected. Moreover, local wisdom is omitted and trusts what has a scientific basis. Even, psychiatrists, who must carefully stydy human mind, western medicine stresses only organic causes in the human brain and chemical therapeutic agents, which are tangibles. Thus physicians will be unintentional victims of businessmen and politicians because they depend on drugs and medical equipment that must be imported and are products of capitalism. Physicians may not sympathize with the poor but tend to favor the rich and work in community hospitals as in Philippines. (Siwaraks, S. 1988: 46-47, Thai)

There are suggestions on how the teaching of medical students ought to be changed, It must not follow the western type too closely, but it must be based on Thai culture also. Then, sociology, humanity, moral philosophy and local intelligence should be added in medical curriculum to produce physicians who sympathize and are willing to help the patients beyond capitalistic motivation.

Another factor that supports the preference to become a specialist is the drive of Thai Medical Council, which seems to encourage more specialists than GPs. this is opposed to the reality in Thai society that needs more GPs especially in community hospitals. By this reason, physicians who are no different than others want to be specialists to work in larger hospitals located in larger towns instead of smaller ones as community hospitals. After training to be specialists they never return to rural areas again. (Chindawathana, A. 1981: 287, Thai) In Thai culture now, specialists have more opportunities in their ranks, in continuous education and receive more prestige and incentives than GPs, so most physicians want to be specialists (Eawsakul, W. et al., 1984: 92-94, Thai).

By the literature review, we can see that the factors causing physicians to leave or work in community hospitals are very complex. Although various ideas have been proposed and various strategies have beenused no one can solve the problem until now. There must be some hidden factors that must be studied and used in the future to permanently solve this problem.

2.6 Criticism of Former Problem Solving Strategies

From the above literature reviews, we find that there is no coordination of ideas for solving the problem. This induced weakness to the former strategies used that were not holistic. The first is compulsory public service to physicians, followed by increasing physician production, re-engineering of community hospitals, increasing incentives and other psychological supporting factors, which cannot permanently solve

the problem because they are based on discriminate ideas. These cause the persistent physician shortage problem.

Is compulsory health service to physician right? This question must be discussed because it introduces unfair medical service to the rural areas. The government can only afford new graduates year by year although the government has invested much in the construction of community hospitals. The rural residents have to rely on new graduates, few specialists as in towns, both government and private sectors. Furthermore, when the government tried to expand modern medical care to every district in Thailand by rapidly establishing community hospital, less physicians went to the newly established hospitals and the shortage problem became more severe. So the government, called the old traditional state, claimed their right and authority to force new graduates to practice in community hospitals as well as to fine them if they breach their contracts because it was easier than to compel the old ones. The government also uses compulsory methods by law to other problems; this is a traditional state practice. (Simachokdi, W. 1996: 46, Thai)

Although this is an effective method in classical society now the society has changed. There is now rapid socio-economic growth, there are various professionals in the society. There are various occupational subcultures due to the existence of these professionals. The powerful occupation subcultures, which include physicians, engineers, scientists and lawyers, not only make personnel can disagree with the government policy or can deny deny it if the policy does not agree with their knowledge but can also use their specific knowledge to make policy. (Resin, J. In Navikarn, S. 1997: 1-45, Thai Ibid.)

So compulsory methods, used for over 17 years, are the traditional uses of power and authority by the government. This strategy is not suitable to develop society and attain their goals. (Dornbusch and Scott, In Shafritz, Ott, J.S. 1975: 312) This strategy also cannot adapt itself with the ideas of professionals, then the professionals don't follow the policy. (Pfeffer, J., In Shafritz, Ott, J.S. 1975: 315) Sometimes they

refuse and criticize these policies also or are unwilling to practice. (Dornbusch and Scott in Shafritz, Ott, J.S. 1975: 312) The evidence in 1996 is example. The second year compulsory physicians resigned because they must move to different regions from the first year compulsory practice without any information from the MOPH before the first year contract.

Thus, if the MOPH still uses power and authority to solve the problem, without the willingness of the physicians, the MOPH will only afford newly graduated physicians to the community hospital and produce more unfairness to rural residents.

The limitation of health personnel due to the hierarchy of hospitals leads to hard work in the community hospitals. The work is increased and there is a high catchment population. The physicians in each community hospital are limited and must work hard in several dimensions such as administration, treatment, and health promotion as well as disease prevention and sanitation. They must work harder than those in larger hospitals, who take responsibility for only specific types of disease. Thus the rural physicians try to move from the community hospital to avoid hard work not adequately supported by the MOPH.

The government provides incentives for physicians who deliver rural services in provincial hospitals and provincial health office as well as other MOPH offices located in rural areas also. This is unfair treatment to community hospitals because physicians in community hospitals have higher responsibilities than those in large organizations. In comparison, the physicians in community hospitals receive lower incentives than other hospitals. Due to bureaucracy, the physicians in community progress in their ranks less than those in larger hospitals. Though the MOPH has tried to improve ranking in community hospitals, they also base aedvancement on clinical contexts. The MOPH allows physicians to learn to be specialists, but do not seriously encourage GPs in community hospitals. So, the physicians who choose hospitals to be specialists in larger hospitals never turn back to community hospitals. The government does not actively support GPs in community hospitals to progress. So, community

hospitals are still driven by newly graduated physicians as in the past because experienced physicians have moved away.

The psychological paradigm claima that there are inside factors which make physicians not ready to take responsibility in various aspects in community hospitals either from inadequate seniority or being afraid of difficulties. Past methods to support the need of physicians include (1) adjusting the medical curriculum to let the medical students know rural areas before they graduate from medical schools (2) improving the environments of community hospitals and (3) improving facilities of medical equipment. These are individual strategies for solving the problem and will not succeed because an individual's need is endless. (Navikarn, S. 1997: 127-128, Thai Ibid.)

Increasing the number of physicians to increase supplies in the community hospitals either by increasing productivity in old medical schools or by establishing new medical schools has been used for a long time. Also there are financial incentives used to solve the problem, this is based on the idea of preventing the physician drainage from rural areas by giving adequate income. The incentives, on call payments and non-private practice allowances seem to be suitable methods but in contrast it produces wider gaps between physicians in community hospitals and in larger hospitals due to the same rules of bureaucratizy. The physicians still drain to larger hospitals instead of working in community hospitals.

The professional paradigm is the way that professionals try to solve the problems. They try to improve medical education, medical care, to support the professionals' interests, which is western style medical care. Western style medical care is used even though in community hospitals that is not in appropriate. Western style physicians also want to be specialists instead of GPs, not excepting community hospitals. The community hospitals also are developed and the ranking in the clinical setting persuades specialists to work in the hospitals. On the contrary, the specialist cannot prolong working in community hospitals. Like any other specialist, they prefer

working in provincial hospitals or private hospitals, so they are crowded in large towns instead of evenly distribution in rural areas. Then, as more specialists are produced, more physicians are drained from community hospitals and the shortage of physicians in community hospital continues.

We can conclude that the causes of physician shortage are:

1.The affect of western style medical education from the past

2.The lack of a good plan for physician production; there is no coordination between users and suppliers, because the MOPH is not the physician producers but its biggest user. The universities are the real suppliers.

3.The goals of new physicians to be famous specialists, who do not admire work in community hospitals.

4.An oversupply of specialists due to a mistake in process of physician production. There are no fixed quotas between the various branches of specialists. The demand is directed by professionals in that branch and by physician marketing, so they do not agree with the nation's demand. Then it effects the distribution of physicians to community hospitals because specialists do not want to work as GPs in community hospitals. (Na-nakorn, S. 1980: 215, Thai) Also, specialists manage the diseases with high technology and expensive equipment that community hospitals cannot provide. This is not appropriate to Thailand's economic status because GPs can serve more of the population than specialists. (Bhirombhak, Y. 1984: 255, Thai)

5.The expansion of private hospitals due to rapid economic growth, without appropriate controls, causeing a shortage of physicians in community hospitals.

So the most important factor affecting physician shortage in community hospitals is incomplete public health service planning. This study tries to propose that new strategy to solve the problem in the future permanently.

CHAPTER III

THEORETICAL CONCEPTS OF THE STUDY: WORLD-SYSTEM PARADIGM AND PHYSICIAN SHORTAGE IN COMMUNITY HOSPITAL

3.1 Capitalism and Distribution of Physicians

This study is based on the concept that the health care system in Thailand has developed in parallel to economic development that is lead by capitalistic concepts. However, Thai capitalism occurrence is not independent phenomenon; it is a part of the Modern World-System. It means the world system has changed from the traditional world system called "the world-empire" to the modern world-capitalist economy. The world-empire is based on political and military domination, while the world-system relies on economic domination. A world-system is seen as more stable than the world-empire by having a broader base, having a built-in process of economic stabilization. The separated political entities within the world-system absorb whatever losses occur, whiled economic gain is distributed to private hands.

This type of world-system has geographical international of labor, the core, the periphery and the semiperiphery. The core geographical area dominates the word economy and exploits the rest of the system. The periphery consists of those areas that provide raw materials to the core and are heavily exploited by it. The semiperiphery is a residual category that encompasses a set of regions somewhere between the exploiting and the exploited. That is the same as in any capitalistic country such as Thailand. The key point is exploitation that is defined by economic division of labor not by state borders.

The international division of labor is oversea expansion phenomenon that introduced in to Thailand. It is the result of specialization in specific functions and caused the centers of ruling class, and other skilled and supervisory personnel called professionalism. There is unequal development between core, periphery and semiperiphery areas. Each of three parts tends to have different mode of labor control. The core had free labor; periphery was characterized by forced labor; and the semiperiphery was the heart of sharecropping or petty bourgeois. Capitalism in the core is dominated by a free market of skilled workers and by a coercive labor market for less-skilled workers in peripheral areas. The core areas extend theirs advantages as towns flourished industries developed and wider variety of activities. At the same time, each of its activities becomes more specialized in order to produce more efficiently. In contrast, the peripheries stagnate and move more toward a monoculture or an undifferentiated, single focus society.

The development of the core areas involves the political sector and how various economic groups used state structures to protect and advance their interests. Absolute monarchy was replace by the new ruling classes while the core areas played a key role in development of capitalism and ultimately provided the economic base for their own demise. There are developing and enlarging bureaucratic systems and creating a monopoly of force in society by developing their armies and legitimizing their activities so that they are assured of internal stability. While the core areas develop strong political systems, the periphery develop corresponding weak policy. (Walleerstein In Ritzer, G. 1983:289-293)

This study will explore the state, the organization and the professionalism (skilled workers) by using the capitalistic ideas of the modern world-system to explore the physicician shortages in community hospitals in Thailand in various dimensions because development of Thai state and medical profession in the past were not dependent phenomena. It affected by foreign capital and technologies and closely related to them and affected distribution of healh resource.

Estimating by the total number of physicians now, Thailand ought not to have a shortage of physicians if there was a homogeneous distribution. In fact, there is a still shortage in community hospitals especially in remote areas, and will persist if the measurements do not hit the core of the problem. Although the government has used several strategies to solve this problem for a long time, physicians still quickly transfer in and out of the community hospitals. Most physicians do not want to permanently work in community hospitals because of several factors shown. Those strategies are compulsory public health service, financial incentive payment and increased opportunity of community hospitals in specialist training. These can only solve the problem temporarily.

The researcher combines the ideas of capitalism, which are core concepts of economic development of Thailand, with the maldistribution of physicians. This indicates that it is the core of this problem since Thailand has accepted western medicine and medical professionalism developed. The medical professional could have major roles in policy making from the center without periphery comments. Furthermore, the peripheral physicians are forced labors as in the world-system theory. For a better distribution of physicians, the concepts of this study are:

1.Relationships between capitalistic state and capitalism that act through state policy and capitalistic bureaucracy affect the distribution of physicians.

2.Relationships between capitalistic bureaucracy and state and professional organization affect the distribution of physicians.

3.Relationships between professions, professional and bureaucratic organizationS and state policy affect the distribution of physicians.

3.2 Rationale for Using Capitalistic Ideas for this Study

Data from many literatures support this idea as:

1. Most physicians congregate in larger and better economic provinces than the other smaller ones, especially in rural areas and community hospitals. If we use the criteria to judge the physician shortage in Thailand, at the present population to physician ratio, Thailand should not have this problem. Contrary to the ratio, there are highly different ratios between larger and smaller provinces. The provinces, exept Bangkok, that has the highest number of physicians is in Chiang Mai (712 physicians) and the one with the lowest number of physicians is Amnat Charoen (18 physicians). By comparing the number of physicians with the gross provincial product (GPP) by simple regression statistical method, the data shows that there is a significant association between these two factors. The provinces with higher GPP have more physicians than the provinces with lower GPP. (Table 3.1, 3.2 in appendix)

2. In the same province, physicians work in provincial hospital more than community hospitals. The congregation of physicians in larger hospitals is not only in MOPH's hospitals but also in hospitals of other sectors, as the Ministry of Defense. (Table 3.3 in appendix)

3. There is social inequality occurring from congregation of physicians in towns. Urban citizens can access health care services more easily than those in rural areas can. Although the rural population has a higher proportion than in urban areas, when the physicians are less, The work with patients is more than physicians in towns which affects the quality of health care services. The data show that one physician in a community hospital serves outpatients three times more than those in provincial hospital do. By the year 1997, the physician to outpatient ratio is 1:18,896 while in provincial hospitals, it was 1:5,378. These data are significantly different.

4. Most physicians want to be specialists because specialists gain higher income than GPs as in the USA that is the most capitalistic state*. In contrary to

* 1996 gross median physician incomes per year by specialty in USA, average surgeon specialists US$367,090,OB/GYNs US$358.070, pediatricians US$264,200, internal medicine US$ 234,650, family

welfare state, as in the Netherlands, specialists and GPs gain less imparity incomes.** Thailand also, specialists have minimal guarantee of salary about 1.5 times that of a GPs.*** So, there are some branches of specialty that engage more physicians, these are OB-Gyn, surgery, internal medicine and pediatrics. There are very few in some branches as we see from the data collected by Thai Medical Council. (Table 3.4 in appendix)

3.3 Capitalism and Medical Services

The term " capitalism " occurred during the 19th and early 20th century; it was a result of the industrial revolution. The advancement of science and technology changed the agricultural world to an industrial world in many societies. Farmers left their land to work in industrial sectors. The economic patterns change from traditional agricultural patterns to economic bureaucracy. Feudalism replaced the farmer class with the labor class. Laborers sold their labor to capitalists and gained salary, and capitalists gained surplus value from labor and the mode of production. This system lead to social inequality in several dimensions.

When we deal with capitalism, we will be concerned with the mode of social change that introduces a new dominant class or hegemonic dominance either economic, politic or administrative factors. They can either lead or control the means of production, the mean of consumption, politicians and sometimes governments also (Navaro, V. 1979: 7). The capitalists have more and more power because they can access higher technology than others. They do not only have power in their locality but also worldwide until they can form their countries as core states with their monopoly in advanced technology. So surrounding countries will be their peripheral states. The

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practitioners US$234,150, GPs US$173,580(Planning for Repayment-Union Bank & Trust/ASAP, Available: http://www.eduloans.com/health/planning.html, 25 January 2000)

** 1998 physicians income per year, GPs US$122020, other specialists US$13,2000(Dutch health care reform: the lesson from USA, Available:http://wwwsma.org/smj/96jun3.html, 25 January 2000)

*** Data from interview, in the highest economic growth period in Thailand (1997),minimal guarantee of salary of GPs is about US$1,600 while for specialists is about US$2,800 per month (at 1997 value)

labor will be dehumanized and work in fraction and lastly there will be as international division of labor instead of human skill (Wallerstein, In Ritzer, G. 1983: 289-293). The higher technological countries gain surplus value from the lower ones. Not exempting medical services, western style of medical service depends on technology so those, who can handle technology and make policy, dominate it. This can introduce justice or injustice to the society.

3.3.1 Capitalist State and Physician Distribution

States ought to be the mechanisms to reduce contradiction between civilians in their countries but in capitalistic states, both local and worldwide, most are tools of capitalists who have high economic and political power. Democratic states are also the tools of the bourgeois to fight against labor disagreement. So the bourgeois try to use the state, state power, state mechanisms or bureaucracy and mechanisms of professionalism to protect the benefit to their own class (Engel, F. In Narthsubha, Ch. 1996: 185). Thus the state becomes the supporter of capitalist to gain surplus value from society, and act as protectors of capitalists (Elling, R.H. 1986: 115). The social gap between the poor and the rich is widened (O' Connor In Elling, R.H. 1986: 116). For these reasons, there may be conflicts between these two groups and the state may have to use some mechanism to reduce the conflict. Besides using laws and regulations, States also use several social services for this reason. Health care services also are mechanisms to relieve conflicts as well as to increase productions of the state or bourgeoisie (Elling, R.H. 1986: 111). At the same time, states have to be careful before setting any policy to serve the poor because they must be aware of the bourgeoisies'concerns (Cleaves, 1980 In Walt G., 1994: 168)

Capitalists dislike public services because governments must expend more funds, which create taxes, and less money for investment. Capitalists always prefer supporting private medical care over public medical care, and they set policy to let the poor having minimal needs of public health services for psychological support to

reduce social conflict. When reaching basic minimal needs, they need not support them furthermore. (Quinney, R. 1979; 154)

So, public health services depend mostly on politics; lower classes that want to use the public services have to approach the policy makers as members of parliament, lobbyists, professional groups, executives of the ministry or representatives. (Rich, In Humphreys, 1985: 223) These factors cause an unjust allocation of health resources in capitalistic society, some areas have excessive numbers while some areas are inadequate making discrimination. (Humphreys, 1985: 223) Policy makers, as government, bureaucratic and professional groups that are capitalists, have monopolistic power to manage the public health policy and public health will be in the midst of capitalistic economic systems soon. (Quinney, R. 1979: 154) There will be a richness of medical technology in the center and the rural physicians will be drawn from periphery and semi-periphery areas to the center, the medical imperialism of the future. (Elling, R.H. 1986: 110)

3.3.2 State Bureaucracy in Capitalistic State and Physician Distribution

State bureaucracy, in the view of Marx, is the collection of capitalists to protect their own benefits. (Marx, In Narthsubha, Ch. 1996: 185) In state bureaucratic systems, a new ruling class exists, called "bureaucracy". Most of them are higher ranking government officials. (Karl, K.; Rosa, L.; Narthsubha, Ch. 1996: 189) This group of government officials has opportunity to join with politicians, and then they have power and authority to manage and set any policy over politicians. In the institutions that have many highly educated administrators that have higher status than the politicians, these officials will have higher power to set any policy than the politicians. They also want to hold the power in their hands and do not want to decentralize their power to the rural organizations and the MOPH is not exempt. (Walt G., 1994: 93-94)

Almost all governments usually have a decentralization policy in their policies, but in practice it is not as they write. The center tries to strictly control the local government by budgetary control to induce the lower-level authorities to follow central policy proposals. (Jeffery, 1986; Mill, 1990; Thomasom, et al.1991; In Walt G., 1994: 159-160) Otherwise, they command the lower-level authorities through rigid rules and regulations. So, the lower-level authorities are reluctant to do something that transgresses the regulations, even though it is very useful to the public, because they fear punishment. Changing rigid rules and regulations to flexible ones sometimes has innumerable benefit to the public. (Korman and Glennester, 1985, Parry- Williams, 1992: In Walt G., 1994: 161-162)

Complex decentralized structures can also impede rather than facilitate the implementation of local health units. Implementation of health policy is; therefore, heavily dependent on the extent to which the center can expect lower-level authorities to follow its guidelines until lower-level authorities have no facility to decide the implementation by themselves. (Gilson, 1992 In Walt G., 1994: 160-161) So, the allocation of resources is dependent on central policy rather than to make the local health units achieve their results. The policies are passed or ministerial speeches made to satisfy some party pressure or some awkward interest group and are only symbolic. (Korman and Glennester, 1985, In Walt, G. 1994: 161-162) Thus, centralization is one of the obstacles of practicing in lower-level health units especially community hospitals because of inflexible rules as well as the unjust allocation of resources.

3.3.3 Medical Professionalism in Capitalism and Distribution of Physicians

In capitalistic society, there is a group of people that own the major resources of the country. They generally have similar educational based ideas and practices. They can be leaders in the economy (economic elite) or administration (state elite). Thus they can use state mechanism to scoop up public resources for their group. These groups are called professional middle classes. (Miliband, R. 1969: 66)

Medical professionals, a congregation of physicians, can lead health the policy either for the public's sake or for their group's sake because medical sciences are so a advanced to be confined in their own group. The others cannot follow and in some countries praise them and raise them to higher status. The medical professional has influence over others in the same or other professions. Due to their higher and specific knowledge that others cannot touch, they have autonomy in their profession to set entry barriers, continuous medical education or controls on each other. (Walt, G. 1994: 102) Apart from medical professional autonomy, sometimes they can control other social mechanisms and affect the policy of physician distribution as follows:

1. Groups of medical professionals usually pay attention to controls and regulate only their matters. They can lead other professional in the line of health service and they have major roles in policy making as well as physician distribution policy.

2. Medical professional autonomy allows dictators and controllers of health services. They can assess the work themselves especially seniors, and then try to seek for adherents that have the same basic ideas. The most powerful medical professions are in medical schools in the universities. They can control other medical professions and set entry barriers for those wanting to enter medical education. They can avoid controlling of the government by their specificity so governments have fewer roles in physician distribution.

3.Professionalism makes the physician have clinical mentality which is only interested in curative measurement. The other measurements of health care, health promotion, prevention and rehabilitation are neglected. They do not care about their colleagues; even more, they do not care about the public. (Freidson, 1970, In Goldstein M.S., 1979: 323) By clinical mentality setting, physicians like to practice in the center which has higher technology than in rural areas leaving the rural area with a lack of physicians.

We can assume that capitalism is the major cause of physician shortage. It collects all resources to the center for only some classes; it creates policy for the sake of some groups with advantags over other ones; because they have better chances to access higher technology. Health care services also like other medical professions have higher technology then they have a tendency to drain to the centers. They can set any policy to support or not to support the distribution of physicians to the rural areas even though there is a severe physician shortage. To solve this problem, the targets are changing at the state or government policy, changing at the bureaucratic level and its mechanisms and changing at the professionalism level instead of changing at micro levels that have been used for a long time.

3.4 Capitalism and Shortage of Physicians in Thai Community Hospitals

This study is based on the idea that the shortage of physicians in community hospitals in Thailand is the result of social and economic development by means of capitalism after the great revolution in 1889 and 1932. Health care policy is also based on national social and economic development plans, so if the health policy is not changed the problem will not be solved. As seen in the strategies used from the past, either compulsory methods, financial incentive methods, increased working supports and progression or psychological support, these all are minor points of the problem and the problem remains.

Rapid change in Thai society from the 1932 revolution introduced new ruling class in the administration of Thailand. This group of people changed Thai administration from absolute monarchy to constitutional monarchy and formed the government that had powerful authority to make policy. Most of them were bureaucratic, and most were members of one of the armed forces. By the using power and authority, only one group of people had highest authority (authoritarian) to make policy and the policy was always made for their own benefit not for the public. This led to unjust allocation of resources in society by the authoritarian named the

Authoritarian-inegalitarian system (Walt, G. 1994; 24-26) using the economic development plan to increase private capitals. By being wealthier than others in society, they were increasingly prestigious both in economic and political affairs. (Karl Marx In Sims, E.C.: 71) On the other hand, they did not pay attention to public policy because it did not support collecting their capital. The ministries that are concerned with public policy are lower class ministries in their view, the MOPH and the Minister of Public Health also are lower status. Thus the MOPH policy will be in the shade of other policies that are capitalistic and stress increased productions (the incrementalist model) rather than improved civilian's health. This model has specific characters where only a few have power to make policy; the policy and practice cannot distinctly distinguished with no distinct method to do this, there are compromises between policy makers and implementers because the policy makers do not want to lose their power. Thus the methods used to solve problems are directed at unimportant areas and avoid affecting the system. (Walt G., 1994: 48-49, 86)

Without good mechanisms of government, the administration of the state bureaucracy government and political system could hardly function. The bureaucracy is the institution that administers the function of the state. It is made up of civil servants or bureaucrats working in departments, ministries, agencies or bureauxs, who collect information and records, plan policies dissemination, enact, monitor, interpret and apply public policies that provide public goods and services, regulate and enforce policies and collect taxes and other revenues. Although supposedly servants to their political masters, bureaucrats may have huge power because of their expertise, knowledge and competence. The bureaucracy has been credited with the maintaining political system when the executives or legislature are ineffective. Civil servants stay in position when politicians or governments change; politicians may be highly dependent on civil servants. So, bureaucrats actually play very important roles in policy initiation and formulation. These policies may be for the benefit of bureaucracy not for the public. (Walt, G., 1994: 80-81) The groups of bureaucrats who have enormous power in policy initiation and formulation (hidden participants) are

specialists community of academics, researchers and consultants in any project. (Walt G., 1994: 57)

In capitalistic society, medical and public health services are in the shade of capitalism also. They are dependent on medical knowledge; medical inventions that are suitable for gaining benefit. This begins with medical education and the universities, which offer medical practice in hospitals, cause an oligopoly of knowledge. The physicians increase their expertise and competence and can manage the health of the others, either by diagnostic or curative method and certify employee fitness for work. This is the trend of capitalism. The ways of civilian self-care and traditional health care, that need no highly expertise, are forgotten (Quiney, R. 1979: 164) while medical professionalism rapidly grows and is the victim of technology in capitalism. Physicians are drawn to such technology as physicians are drawn from community hospitals to larger hospitals.

The specialization of medical professionalism is the resul of high advances and specialization in medical sciences. Medical education developed systematically through provable referral theories. Thus medical professionalism has distinctive specializations and accepted worldwide. (Goldstein, 1979: 322) They have autonomy to control each other and have enough prestige to be the dictators in public health policy (Fridson, cited by Light, D. and Levine, S. In The Corporative Transformation of Health care, Salmon, J.W. Ed., 1994: 164-165). The autonomy of professionalism has both good and bad sides. The benefit is they may be effective media between civilians and government because they can lead the legislature or administrators. (Walt G., 1994: 97) The disadvantage is that they may influence public policy to their own objectives rather than for the public. (Olson, 1982 In Walt G., 1994: 98)

We can see that in capitalistic society, medical and health service, professional stresses the curative mode with high technology rather than preventive. This causes unbalances between different levels of medical care units, either governmental or private units or in multilevel governmental units of medical care.

Community hospitals are mostly affected by this factor because their major obligations are prevention. So they lack high technology and medical equipment to support their needs and drain to the other larger hospitals either governmental or private hospitals. This leads to an unbalance distribution of physicians and causes shortages in community hospital quickly. The drainage of physicians yearly as soon as the contracts are over although the government by the MOPH tries to use several strategies to solve them. The problem remains persistently.

This research shows that the best way to solve the shortage of physicians in community hospitals must involve three factors at the macro level based on capitalistism.

1.Factors about state or government: These factors are concerned with public health policy. It is composed of personal factors of the government and components of the medical and health service policies. These affect the pattern of medical services countrywide and also affect community hospitals until there is shortage of physicians.

2.Factors about organization: these factors are concerned with the line of organization from the MOPH, Provincial Health Offices, provincial hospitals or regional hospitals to community hospitals. It is also concerned with rank, line of authority and supervision. These all have important role for physicians in community hospitals to determine work stability.

3.Factors about professionalism: these factors are concerned with medical professionals that influence state or government policy on public health and medical services, the MOPH, the power of autonomy, how to select medical students, continuous medical education, specialization and effects of specialization on organizational formation as well as values to be specialists. These factors also are concerned with professionalism and private medical sectors, associated factors of the shortage of physicians in community hospitals.

3.5 Conceptual Framework of This Study

The researcher has the concept that the previously strategies used only hit at minor unimportant factors. Constructions of factors at the policy level to solve the problem permanently are as follows:

1.the state or government was developed by a group of people that formed a new ruling class. This was the resul of the 1932 revolution. Although they tried to distribute health care services and health care units to the rural areas in the policy in practice they do not pay much attention to it intentionally. Thus, the MOPH is a low achieving ministry and the policy is not truly encouraged. Thus the medical and health care policy has such special characteristics that it affects the distribution of physicians.

1.1 National Health Policies have no definite direction to set Thai medical health care to be state-welfare services or private services as other goods. Then it is the responsibility of professionals to produce physicians, distribute physicians and develop medical and health care services. Then capitalism and professionalism direct it and cause an unbalance in the distribution of physicians to the capital and urban areas rather than in rural areas.

1.2 To train physicians, there is no definite quota of physicians in each specialty. The training of each specialty depends on the association of each specialty not on national needs. Most physicians want to be specialists because the patients are induced to rely on high technological medical equipment so as to be dependent. Although, most diseases can be cured at the community level by GPs in community hospitals, almost all physicians in community hospitals are pulled into specialist training programs. So the community hospital lacks physicians repeatedly because new graduates cannot refill the lost number of physicians.

1.3 Capitalist governments do not give importance to health policy, so they do not pay attention to set long term health policy. They use the easiest ways to solve

the problem as compulsion by their authority or compulsory health services to newly graduated physicians. They try to expand the productivity of medical schools both in old established medical schools and try to establish new medical schools without attempting to deal with existing professionalism and medical care systems. They left medical care systems in the hand of medical professionals. Then it is combined with capitalism and dependent on highly advanced equipment even in governmen hospitals which compete with private hospitals. The private hospitals also are not controlled adequately. There is an excessive growth of private hospitals. Trying to compete with private hospitals with inadequate budgets, physicians are frustrated to practice in governmental hospitals especially in community hospitalswhich contributes to the shortage problem.

2. State or governmental mechanisms are not flexible enough to solve the physician shortage in community hospitals effectively.

2.1 Bureaucracy has many regulations and cannot adapt itself to existing problem immediately. Even when severe, rural health authorities cannot decide by themselves promptly.

2.2 Rural health authorities have no power to plan health personnel needs in their locality, e.g., physicians sent to their provinces or specialty needs in their provinces. Central health authorities still have powerful authority over these factors. These central health authorities include the medical schools, Thai Medical Council and university hospitals. They are free to select physicians to train in specialty programs even though rural health authorities do not and even when there is severe shortage of physicians in community hospitals.

2.3 The ranking and promotion of physicians in community hospitals does not encourage them to practice. Physicians in community hospitals have to work as GPs but MOPH do not promote them as GPs. The MOPH tries to promote them as

specialists by imitating larger hospitals. So they cannot compare with others in larger hospitals due to inequitable resource allocation and different work.

2.4 The administration of rural health units in any province lacks unity. The complex of rural health units in each province is composed of Provincial Public Health Office, Provincial Hospital or General hospital, and Community Hospital. Although the latter two are under Provincial Public Health Office, the Provincial Chief Medical Officer has no power to command Provincial Hospitals or General Hospitals. This is seen in the many cases of physician shortages in community hospitals and surpluses of physicians in provincial hospitals of the same province because the Provincial Chief Medical Officer of that province cannot manage.

3. Professionalism had very important role in medical and health care policy planning in Thailand because the past government imitated western countries in the shade of capitalism and promoted medical and health care services depending on high technology equipment and physicians who treat diseases and not as a whole of patients.

3.1 The MOPH, which is the largest consumer of physicians and has a major role in medical care service in most parts of country, cannot produce physicians by itself. The roles of physician education and production are in the hands of medical schools in Ministry of University Affairs and most of them are medical professionals. So it is difficult to reform policy.

3.2 Because strengthening the medical profession through training specialty is under the authority of professional associations. The MOPH cannot directly plan for its needs. Even MOPH hospitals that train specialist have to receive certification from professional associations.

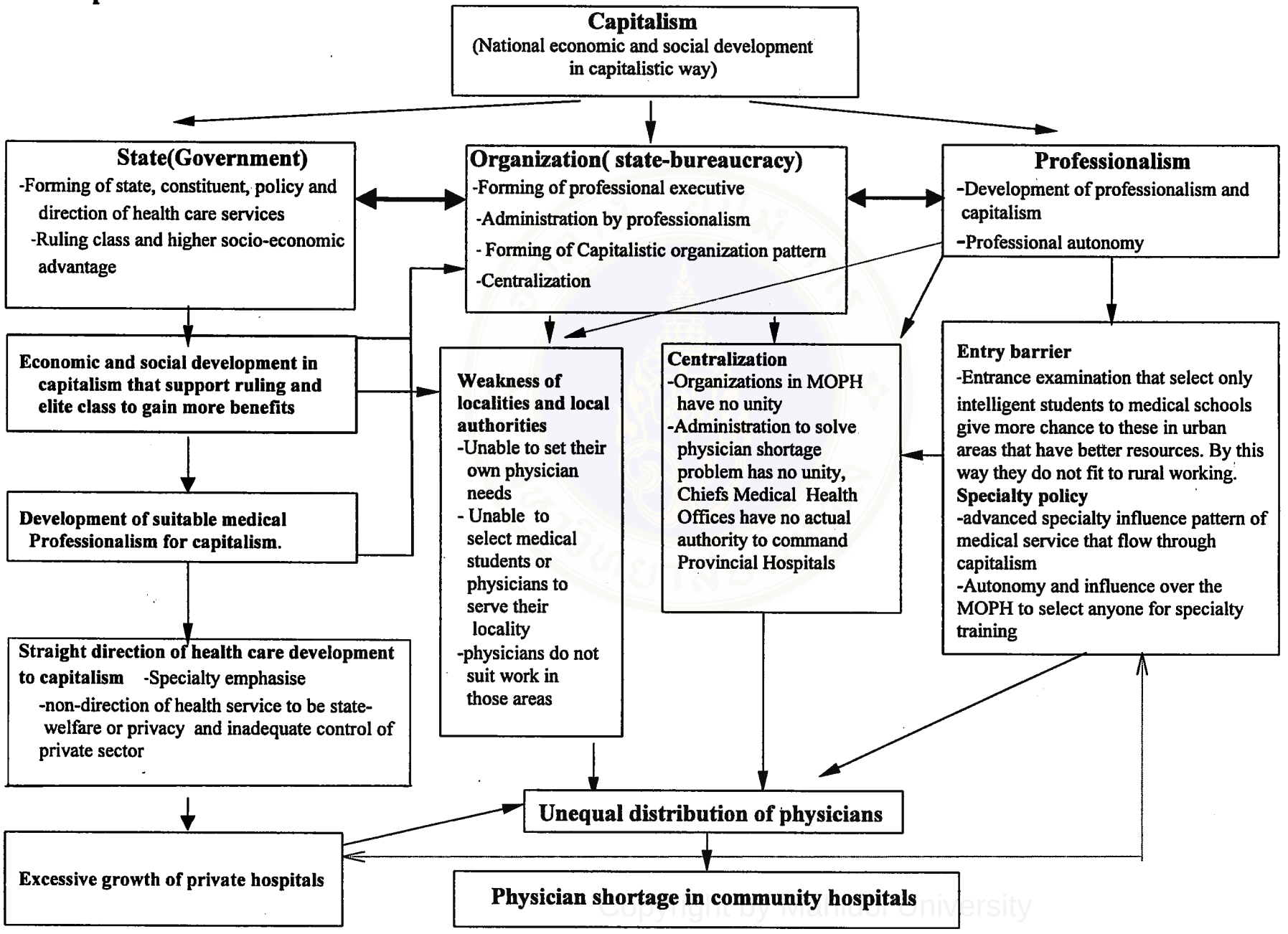
3.3 There is no distinct policy to fix the proportion of each specialty; the flow of specialty is directed to professional needs. That is, specialists that make higher

salaries rigorously affects physician distribution in community hospitals. The physicians, who are practicing in community hospitals, are those who still cannot go to or are waiting for training specialty and this also affects quality of medical care in community hospitals.

3.4 Excessive and non-directional growth of private hospitals, that is, the result of capitalism for serving the needs of specialists and the rich, absorbs the physicians from community hospitals that have such low resistance to the resist flow of capitalism. Thus physicians leave community hospitals to be specialists in private hospitals. If the MOPH cannot control the growth of private hospital, the physician shortage in community hospitals will persist.

In this study, the researcher will indicate the causes and effects from defects of governmental policy, bureaucracy and organization of the MOPH through community hospitals and professionalism; that all affect each other. These leads to unclear medical service in Thai society as well as in community hospitals and an unequal distribution of medical resource, physicians, also. This study also will indicate the exact methods to solve the problem at the politic level not individual level.

Conceptual Framework



3.6 Variables

From the conceptual framework, the researcher set up a group of research questions that have to be resolved. Dependent Variable is physician shortage in community hospitals. Independent Variables are (1) State or governmental medical and health policy (2) organization: from the MOPH, Provincial Public Health Office to community hospitals, rules, regulations and line of authority and (3) Professionalism and its interaction with state and state policy as well as to organization

3.7 Research Questions

The research Questions of this study are as follows.

The First Research Question: The capitalistic state cannot set up distinct health policy to direct Thai medical and health services to be state-welfare medical and health services or private medical and health services.

The state or government composed of a new ruling class that had to keep their power and status by accumulating capital, so they tried to use any policy that supported their wealth, one of profit and loss. They did not pay attention to public policy. Medical and health policy, also, is not the first priority policy of any government; the rural areas always recieve inferior service. Though most governments have written in their health policy to establish community hospitals in all districts in Thailand, they are concerned with the construction of hospitals and avoid dealing with health care systems. The problem persists until now.

1.1 The Thai capitalist state does not fix the national health policy whether to be a true welfare medical service, true private medical service or mixed type at an appropriate ratio because governments think only of their power. So, the members of governments and their allies try to use any policy that can maintain their benefit. They do not pay enough attention to health policy and sometimes neglect it. After that, the

private sector of health care grows without appropriate controls by government, at the same time it is promoted by the government in several national economic and social development plans. In contrast to community hospitals, there are no adequate promotions from government, so physicians cannot practice in community hospitals. Then they leave community hospitals creating a shortage. The government must directly manage and promote one type of medical service instead of non-directional management and allowing uncontrolled private sector overgrowth. Thae effects of capitalism absorb human resource at the center.

1.2 The government health policies do not fix that how many specialists in each specialty and subspecialty are the true needs for medical service. Most specialties vary to market need, that is the capitalistic ideal. Physicians want to be specialists in well-known specialties that make them gain more benefit. This leads to a shortage of physicians in community hospitals because they have to work as GPs in community hospitals; that do not serve their needs. When these physicians leave community hospitals, governments try to use incentives to produce new physicians to refill the space but unsuccessfully. To succeed in solving physician shortages in community hospitals, the government must fix the ratio of each specialty for training physicians (include GP specialty) and set the appropriate type of medical services to support them. The unequal distribution of physician will be improved and the shortage of physicians in community hospitals will disappear.

1.3 The capitalistic state avoids dealing with the structure of any system as well as the administrative system of the MOPH for supporting physician to practice in community hospitals. One example is the rank for physicians in community hospitals does not match their work but imitates the works of specialists in larger hospitals, a district disadvantage. On the other hand, state prefers using compulsory methods, e.g., compulsory health services for new physicians and it has been used for a long time. Without other appropriate supporting methods, compulsory methods are not long -term strategies to solve the problem because it cannot keep these doctors within community hospitals. Instead of compulsory methods, the government must change rules that

support work and progress community hospitals. This method will create good will in physicians and keep them in community hospitals for a long time.

1.4 Physicians in community hospitals work harder than physicians in larger hospitals or harder than the rural government officials of other ministries and the incentive or salary they receive, in comparison to the others, is slightly lower. Thus the physician do not want to practice in community hospitals creating a shortage. Nevertheless, governments do not dare to change some regulations to support work in community hospitals, the governments are afraid of conflict from the other officials. Besides different incentives, if there are no different rules between community hospitals and general hospitals, physicians in community hospitals are in inferior rank to physicians in larger hospitals. Also the capitalistic state and medical system agree with specialty rather than general practice in community hospitals that have to do exceptional work for curative and preventive disease control. It seems that governments do not see it is a very important component in medical services. So physicians leave community hospitals to practice in larger hospitals as specialists. If the regulations are not changed the problem will not be resolved.

The Second Research Question: The organization of the MOPH cannot manage the shortage of physicians in community hospitals.

2.1 The line of command in rural health units has no unity; Provincial Chief Medical Officers have no actual power to control all the physicians in their provinces. Actually they cannot command physicians in general or regional hospitals, although by rule they should. The community hospitals are short of physicians while general hospitals have a surplus and the physician to population ratio in that province does not show any shortage. Provincial Chief Medical Officers have to have actual power and authority to control provincial and regional hospitals so as to share resources.

2.2 Though local health units have to look after their locality health, centralization of bureaucracy weakens the power, authority and decision-making of both officials and non-officials. Selecting medical students is not their duty, it is a direct duty of the center, that is the Ministry of University Affairs. Also, incoming new physicians, practice in each province, by the quotas set by the MOPH, not by the local health units. Besides the quotas of new physicians, quotas for specialists at the local units also need allowance by the MOPH and medical associations, thus the local health units cannot control and plan for their needs. Moreover, the continuous medical education system gives a chance for physicians to freely train specialty without obligation from any institution. These all affect physicians in community hospitals, the local health unit cannot solve the problem by themselves.

2.3 GPs in the community, who can work in wider functions than specialists, seem to be considered of secondary importance. The MOPH aggravates GP status by motivating physicians in community hospitals to be specialists in medicine, surgery, pediatrics and OBGYN. Physicians in these specialties have more chance to progress in their ranks than GPs, however after training; they cannot prolong their function in community hospitals. They try to move to larger hospitals, either provincial or private hospitals creating shortage.

The Third Research Question: Professionalism has a potent role in health care planning from state policy, to the MOPH policy to their group policy; they have influence on the production and distribution of physicians to all levels of MOPH, Even in rural health units, professionalism has a more powerful function than normal line of authority.

3.1 The MOPH cannot produce physicians although the MOPH is the major user of physicians. On the other hand, physician production is the responsibility of medical schools under the Ministry of University Affairs, mostly medical professions. The MOPH cannot either increase supply of physicians or direct planning for physician need of its own. While MOPH tries to establish its own medical schools, MOPH has to

wait for Medical Council commitment. It is obvious that professionalism has influence on the MOPH or state policy.

3.2 Specialty training programs are powerful authority of the center especially medical professions. They have legal rights to admit or exclude physicians to training programs, while the local health units don't. They have legal rights to freely admit physicians without contracts with local health unit obligation to training programs even though there is a severe shortage of physicians in community hospitals. This also shows that professionalism has more power than local health units.

3.3 Medical professions at different levels also have influence over the medical profession in general. It is clearly seen that private sector influence to the state and the MOPH does not try to limit the growth of private hospitals. The excessive growth of private hospital during the economic expansion causes increasing demands of physicians who are enticed with higher salaries and incentives according to the capitalistic method. Most physicians are absorbed into private hospitals and the community hospitals have no physicians replace them.

CHAPTER IV

RESEARCH METHODOLOGY

Research design being used in this study is qualitative utilizing documentary historical reviews.

4.1 Sources of this Study

Sources of this study are divided into two categories. First is qualitative data from various documents, both primary and secondary sources. Second is quantitative data from survey; most data are primary data.

4.1.1 The secondary data are derived from reports of several organizations, letters, newspaper articles, statistic records and documents from several divisions of the MOPH, the universities and the National Statistic Bureau. The secondary data are also derived from published research, reports, memos, journals, various books, the National Economic and Social Development Plans, the National Health Development Plans, online articles and so forth.

4.1.2 The empirical data were collected from three key-informance interviews and participant observation in two conferences.

4.2 Research Tools

The research tools of this study are as follows:

4.2.1 Research questions were used as guidelines for literature review about policy, programmes, rules, regulation and sructures of governments, the MOPH and medical professional that involved the shortage.

4.2.2 Observation guidelines were designed to collect data that explain the socio-cultural contexts of physician shortage in community hospitals

4.2.3 Interview guidelines were designed to use during key-informance interview and telephone interview three key informances were interviewed. Two were person to person interview and the other was telephone interview

4.2.4 Qualitative data survey of advertisement, number of physicians in various provinces and in the Rural Recruitment and Training project was derived from the National Library, the National Staistic Bureau and the Head Office of Mahidol University.

4.3 Operation Definition

Physician shortage in community hospitals means unequal distribution of physicians between community hospitals and large hospitals which is insufficient in community hospitals by using these criteria: (1) the physician to population ratio between community hospital area and the total proportion (2) the physician to population ratio between Bangkok metropolis and other provinces (3) the physician to population ratio among the provinces in different regions that have different souci-economic status (4) using the physician to population ratio among each district in the same province with towns served by large hospitals and the surrounding areas served by community hospitals and (5) the number of outpatients and inpatients served by one physician per year. (Details in chapter 5)

Community hospitals means the MOPH hospitals, non- exceed 150 in patient beds which locate in any district and are under control of the Rural Health Division of the MOPH

Compulsory physicians means newly graduated physicians who have to practice as the government officials for 3 years after graduation.

Capitalism means the way of national development that stresses on economic growth development rather than social development.

State or Government includes persons who form the governments, structure of government.

Government policy, includes only health policies of medical management and strategies used for solving the shortage problem of physicians in community hospitals from the past until now.

Organization means the MOPH that includes the structure of health personnel and executive in the MOPH, its health facilities such as Provincial Health Offices, general hospitals, and regional hospitals, community hospitals and related health units. It also includes line of authority; rank of traditional positions and regulations that affects the distribution of physicians and work in community hospitals. These all concern the shortage of physicians in community hospitals.

Professionalism refers to only medical professionalism, which includes the association of medical professions such as the Thai Medical Councils, the Medical associations of each specialty and groups of medical professions in medical schools, private hospitals, general hospitals and regional hospitals.

Health policy means the policy on health affairs such as physician production, physician distribution, entry barrier, continuous medical education, medical service pattern which impact the shortage.

4.4 Data Analysis

Data analysis in this study is divided into two categories as follows.

4.4.1 Qualitative data analysis: the main data analytic method of this study is content analysis of the empirical evidence chronologically to support the research as well as logic and rational arguments in some evidences needed to infer certain

connections. The historical events that concerned with the development of state, state health policies, the MOPH, the MOPH structure and rural health policies, medical professional and its organizations from the beginning to the end are placed the most important event, idea or person in context to describe what happened. Some evidences are supported with primary data as seen in the three sub-studies.

4.4.2 Quantitative data analysis: there are three exploratory sub-studies to support the document. The first is the data of physicians and the gross provincial product (GPP), which have top ten highest numbers and top ten lowest numbers of physicians. These data are analyzed with simple regression technique to show difference. The second are the data of physicians in the Rural Recruitment and Training Project with their workplaces and those from the entrance examination graduated from 1981 to 1990. To examine the difference between these data; the statistical analysis was done by independent-t test technique, chi-square test. The third is the data of physician requirement to support the relation of economic expansion and physician drainage to private hospitals. The data are collected from the advertisements in Matichon newspaper from January to March for five years, 1992-1996. Selecting this period because Thailand has faced both economic boom and economic down turn, the data are analyzed by independent-t test technique to show the significant difference by using dummy variable to replace the economic status.

CHAPTER V

INDICATORS OF PHYSICIAN SHORTAGE

Physician shortage in Thailand as well in community hospitals is the common article mentioned for a long time, up to now there are no definite criteria to define how many physicians needed and what are the standard measurements of physician shortage in Thailand? However by using the data in Chapter 1, physician shortage in community hospitals is still an important problem when we use physician per population ratio as an indicator. By reviewing several literatures there are many efforts to predict shortage problem in the future and planning for solving them as follows.

1. The Institute for Thai Development funded by Health System Research Institute (HSRI), MOPH has projected the demand of medical services of Thai populations, demand of service from physicians of Thai population in the year 2015 as follows.

1.1 By that year the total numbers of Thai population will be 69 millions.

1.2 The Total numbers of physician will be 45,214 - 62,542 physicians while the population needs for physicians will be about 33,578 - 42,842 physicians

1.3 There will not be physician shortage in Thailand because the physicians per population ratio will reach 1: 1,526 - 1: 1,105.

We can see if this study uses the physician per population ratio about 1: 1,526 - 1: 1,105 to state that there will not be physician shortage. On the other hand, this study does not mention about how to distribute these physicians to the rural areas.

2. The joint research for human resource development between bureau of policy and planning, HSRI and Praborommarajchanok Institute, MOPH has projected the needs of physicians in Thailand as follows.

2.1 By the year 2015, Thailand needs 48,477 - 69,489 physicians.

2.2 The shortage will be slightly severe in the decade of 1995-2005 and the shortage will decrease severity in the second decade of 2006-2015.

2.3 There will be more appropriate and simple geographical distribution of physicians by specialty also.

This study does not state that how many physicians are adequate for rural areas but based on increasing total numbers of physicians to reduce shortage in rural areas.

3.The Thai Medical Council has projected the need of physicians in the next 25 years by using various criteria as physician per population ratio, population need for medical services and needs for expanding health care units. They estimate the need for physicians by the year 2020 at about 42,729 - 60,313 physicians or 1: 1,169 - 1: 1,650.

From above three studies, which are the relevant projects to the problem solving health units, there are no distinctive definitions of physician shortage or definite projection of appropriate physician per population ratio in Thailand. This study will show the definition of physician shortage of the USA that almost say that it is the model of health care services in Thailand especially in rural areas and community hospitals. The USA Bureau of Primary Health Care designates shortage of primary medical care professionals by the following three criterias:

1. The area is a rational area for the delivery of primary medical care services.

2. One of the following conditions prevails within the area:

2.1 The area has a population to full-time equivalent primary care physician ratio of at least 3,500:1

2.2 The area has a population to full time equivalent primary care physician ratio of less than 3,500:1 but greater than 3,000:1 and has usually high needs for primary care services or insufficient capacity of existing primary care providers.

2.3 Primary medical care professionals in contiguous areas are over-utilized, excessively distant, or inaccessible to the population of the area under consideration.

When comparing the conditions of the MOPH for the establishment new community hospitals with that of the Bureau of Primary Health Care, USA, we can see that it is most likely to that of the USA. primary medical care services in many criteria.

5.1 Geographic Areas

a. The Rational Areas for the Delivery of Community Hospital Services of the MOPH

Criteria include:

1. The populations in the district of community hospital are not less than 50,000 or include contiguous areas by referral system not less than 100,000.

2. The community hospital should be located in the subdistrict that has a District Government Office located and apart from the larger contiguous hospital by about 40 kilometers. This subdistrict must have good transportation to surrounding districts or subdistricts.

3. The population in the subdistrict of the community hospital locates, is not less than 8,000.

4. The population in that area needs hospital support and management.

5. There should be complete infrastructure such as electricity, tap water, etc. (Huayploo hospital, 1994: 17-18)

b. The Rational Areas for the Delivery of Primary Medical Care Services of Bureau of Primary Health Care

Criteria include:

1. A county or a group of contiguous counties whose population centers are within 30 minutes travel time of each other. The following distances will be used as guidelines in determining distances corresponding to 30 minutes travel time:

1.1 Under normal conditions with primary roads available: 20 miles

1.2 In flat terrain or in areas by interstate highways: 25 miles (40 kms.)

1.3 In mountainous terrain or in areas with only secondary roads available: 15 miles

2. Established neighborhoods and communities within metropolitan area with a strong self-identity have limited interaction with contiguous areas, and which in general, have a minimum population of 20,000.

5.2 Population Count

However, there are many criteria that are not mentioned in the MOPH criteria and are different.

1. Population count is not mention in the MOPH criteria but is in the USA. The population count used will be the total permanent resident civilian population of the areas, excluding inmates of institutions with the following adjustments, where appropriate:

1.1 Seasonal residents, i.e., those who maintain a residence in the area but inhabit it for only two to eight months per year, may be included but must be weighted in proportion to the fraction of the year they are present in the area.

1.2 Other tourists (non-resident) may be included in an area's population but only the weight of 0.25, using the following formula: Effective tourists contribution to population = 0.25 ×(fraction of year tourists are present in area) × (average daily number of tourists during portion of year that tourists are present).

1.3 Migratory workers and their families may be included in an area's population, using the following formula: Effective migrant contribution to population =(fraction of year migrants are present in area) × (average daily number of migrants during portion of year that migrants are present).

5.3 Counting of Primary Care Practitioners

2.Regarding the counting of primary care practitioners, the MOPH does not mention but the USA does as follows:

2.1 All non-Federal medical doctors (M.D.) and osteopaths (none in Thailand) providing direct patient care who practice in one of the four primary care specialties; general or family practice, general internal medicine, pediatrics, or obstetrics and gynecology will be counted. Those physicians will be computed as the full-time-equivalent (FTE) primary care physicians.

2.2 Those physicians engaged solely in administration, research, and teaching are excluded.

2.3 Interns and residents will be counted as full-time-equivalent (FTE) physicians.

2.4 Graduates of foreign medical schools who are not citizens or lawful permanent residents of the United States will be excluded from physician counts.

2.6 Graduates of foreign medical schools who are citizens or lawful permanent residents of the United States, but do not have unrestricted licenses to practice medicine, will be counted as 0.5 FTE physicians.

2.5 Full-time-equivalent (FTE) primary care physicians are those who provide patient care 40 or more hours a week but those who provide patient care services to the residents of the area only on a part time basis will be counted as 0.1 FTE.

5.4 Determination of Insufficient Capacity of Existing Primary Care Providers

The following indicators determine insufficient capacity:

3. The determination of insufficient capacity of existing primary care providers in The USA as follows is different from of the MOPH.

3.1 More than 8,000 office or outpatient visits per year per FTE primary care physicians serving area.

3.2 Unusually long waits for appointments for routine medical services (i.e., more than 7 days for established patients and 14 days for new patients)

3.3 Excessive average waiting time at primary care providers (longer than one hour where patients have appointments or two hours where patients are treated on a first-come, first-served basis).

3.4 Evidence of excessive use of emergency room facilities for routine primary care.

3.5 A substantial proportion (2/3 or more) of the area's physicians do not accept new patients.

5.5 Indicators of Physician Shortage in This Study

This study uses the following criteria to indicate the shortage of physicians in community hospitals:

1.Using the physician to population ratio between community hospital area and the total proportion.

2.Using the physician to population ratio between Bangkok metropolis and other provinces.

3.Using the physician to population ratio among the provinces in different regions that have different souci-economic status.

4. Using the physician to population ratio among each district in the same province with towns served by large hospitals and the surrounding areas served by community hospitals.

5. The number of outpatients and inpatients served by one physician per year.

By using these criteria, we can see that there are severe shortages of physicians in community hospitals when compared with those in towns as follows:

a: Physician per Population Ratio by Region

The data of the Committee on Public Health of the Senate reported that most physicians by the year 1997 were conglomerated near Bangkok. The physician per population ratio in Bangkok is 1: 909 while in Northeastern Thailand, it is 1: 10,740, and for the whole country is 1: 4282. (Table 4.1) From the data above, there would not be any physician shortage in the whole country level if we used the criteria of physicians per population ratio at 1: 3,000 as in The USA. Meanwhile, by exploring the ratio of other regions apart from Bangkok, the ratios are so different that there is a severe shortage in the northeastern regions, far from Bangkok. The ratios are less in the South, the North and the Central regions respectively. The shortage problem will be more severe if we compare the physicians per population ratio between those in community hospitals and general or regional hospitals in the same province.

b. Physicians in Community Hospital per Population Ratio by Advisory Regions of the MOPH, 1997 Fiscal Year

In the 1997 yearly report of the Department of Rural Health, the MOPH shows the data of physicians in community per population ratio, physician per outpatient ratio, by advisory regions. These data show that the shortage of physicians in community hospitals is very severe by using either physician per population or physician per outpatient or inpatient ratio. The lowest ratio of physicians in community hospital per population ratio is 1:18,378 in the 4th advisory region, provinces nearby Bangkok, i.e., Nakhon Pathom, Ratchaburi, Samut Songkhram, Samut Sakhon, Suphan Buri, Kanchanaburi, Phetchaburi and Prachuap Khriri Khan. The highest ratio is 1:34,382 in 7th advisory region the provinces in upper Northeastern, i.e., Nakhon Phanom, Mukdahan, Yasothon, Roi et, Si Sa Ket, Amnat Charoen and Ubon Ratchathani. (Table 4.2)

c.) Physician per Outpatient Ratio

Most of the population in each province live in surrounding districts that are not the central districts or amphur mueang, where general or regional hospital located; those population are served by district hospitals. Although the populations are larger than those in the amphur mueng, the numbers of physicians in several community hospitals are less than the physicians in one general hospital or in one regional hospital in the same province. We can see that the physicians in community hospital and in the general hospitals in the same province are very different in numbers. The ratio is very low and the lowest is 1:56 in Nonthaburi to 1:10 in Phra Nakhon Si Ayutthaya, Saraburi and Chon Buri. This evidence shows that physicians do not homogeneously distribute to community hospitals; most of them work in Bangkok and the vicinity or large towns. (Table 4.3)

Because of the conglomeration of most physicians in towns, even in the hospitals of the MOPH, most physicians collect in larger hospitals such as general or regional hospitals rather than community hospitals. Less physicians in community hospitals serve larger populations than physicians in larger hospitals. So, by using the criteria of physicians per outpatients at 1:8,000 per year, there is a shortage of physicians in community hospitals because one physician in community hospitals serves average 18,896 outpatients per physician per year (S.E. ± 5,833). The least is Samut Songkhram Province, about 9,181 outpatients per year and the most is Chiang Rai Province about 37,833, outpatients per physician per year, quite different from physicians in provincial hospitals. Meanwhile, a physician in a provincial hospital serves an average 5,378 outpatient per year (S.E. ± 1,574). The least is Chanthaburi Province about 2,197 outpatient per physician per year. The most is Amnat Charoen province, which is a newly upgraded from community hospital, about 10,056 outpatient per physician per year. The average number of outpatients served by physicians in community hospitals and provincial hospital is significantly different. (Table 4.4)

There may be some arguments that the diseases of outpatients who come to the community hospitals and provincial hospitals are not the same, so the physicians use different amounts of time to take care of these diseases. To answer this argument this study took a random sampling on diseases of the outpatients in community hospitals, provincial hospitals and regional hospital. This can be seen from the first ten groups of diseases found in those hospitals, each disease can be found in community hospitals also. (Table 4.5, 4.6). By this reason there is no need to weight the diseases in each hospitals when we want to compare the workload between physicians in community and provincial hospitals. When we use the physician to outpatient ratio, there are severe shortages of physicians to serve the patients in community hospitals countrywide.

5.6 Appropriate Numbers of Physicians in Community Hospitals

As stated previously, there is no distinct agreement on how many physicians are enough for medical services in each rural area and what are the exact goals to reach the general practitioner to population ratio. The specialist to population ratio and suitable patient care to physician per year indicates the best quality care. The other studies were only individual ideas, there is no national plan to set the goals of these agreement. This study reviews literature about the shortage criteria and proposes the best idea for solving the problem as follows.

1. There are several ideas about the suitable GP or family practitioner to population ratio such as (a) the University of North Dakota School of Medicine suggests that one GP or family practitioner serve a population of 2,200. (Ralph, R.D. 1999: 2-18) (b) the Council on Graduate Medical Education suggests that by the year 2000, there should be 60-80 GP per 100,000 population or 1: 1,600- 1: 1,250 GP per population ratio(Bodenheimer, T. 1999: 584-588)

In remote areas of Australia, the GP to population ratio of 1,400-1,700 is claimed to be insufficient compared with the ratio of 1:1,1000 in large towns (Holub, L. 1997: conference paper). In Cuba, the GP to population ratio is about 1: 700 – 1:

400. (Waitzkin, H., Wald, K., Kee, R. et.al, 1997) In Hungary, the GP to population ratio is about 1: 1,800 (Javor, A. 1995: 2-5). In Spain, the GPs to population ratio is about 1: 1,000 – 1:1500. (The rural general practitioner in Spain, 1999) In Hong Kong, the GP to population ratio is about 1:806 claimed to be excessive. (HKMA Newsroom, 1997) In Great Britain, the GP that is the gatekeeper of referral system sets the criteria at 1: 1,800 – 1:2,200. (Roger J., 1998: 4)

We can see that by using the physician to population ratio, there is a severe shortage of physicians compared with other countries because now Thailand has a total physician to population ratio of 1: 4,282. However when using the GP in community hospitals to population ratio, the GP to population ratio is as low as 1: 25,227. This shows that the shortage of physicians in community hospitals is very severe caused by unequal distribution of physicians.

2. For the quality medical services, physician to outpatient per year ratio should be appropriately balanced. This ratio is different in many countries. The United State Public Health, cited by The University of North Dakota School of Medicine, USA, states that the most appropriate ratio is 1: 4,200. This ratio will provide the physician adequate profit and good quality medical care. (Ralph, R.D. 1999: 2-18) In Hungary, which is social welfare state, the ratio is fixed at about 1: 2,800 for good quality medical services. (Javor, A. 1995: 6-7) In Great Britain, the ratio is about 1: 7,200- 8,800. (Roger J., 1998: 4) In Thailand, by average, one physician in community hospitals serve 18,896 outpatients. This is so far different from the data above while there is no agreement on how many outpatients will be suitable for one physicians to provide the best quality medical care.

Using the physician to population ratio, physician to outpatient ratio, physician to physicians in different level hospitals of the same province, and compared with other countries, a severe shortage of physicians in community hospitals is seen. If this situation is not changed, there will be many bad effects to major populations because the population served by community hospitals is larger than those served by general or regional hospitals. These effects are as follows:

1. There is injustice to most populations, especially those in rural areas that lack medical services. Besides inadequate medical services, the rural population must rely only on newly graduated physicians. When they struggle to visit the more experienced physicians in urban areas, unnecessary health care and travelling costs are incurred. This does not follow the MOPH policy to distribute medical services to the lower levels in the rural areas.

2. If the health system does not change, most physicians will prefer to be specialists and community hospitals cannot support them. They must transfer to larger hospitals in towns that have more medical equipment. Even though the government tries to increase the production of physicians, It cannot fulfill its objective.

3. It is not fair to newly graduated physicians to be compelled to work in unacquainted placed by drawing lots, even though it is so practiced in Thailand. The rural residents must rely on new physicians that have no willingness to practice there, that is injustice. The compelled physicians try to flee from community hospitals soon as their obligations are over.

5.7 Future Trend of Physician Shortage in Community Hospitals

From 1981 to 1990, there was a better distribution of physicians to rural community hospitals due to priorities in rural health development. It came from increasing physician production and compulsory health services strategy. The difference between population to physician ratio between the poorest area, the Northeast and the capital, Bangkok, decreased gradually from 21 times in 1979 to 8.6 times in 1985. But the gap started to expand again up to 12 times in 1993 due to internal brain drain. This correlated well with rapid economic growth and rapid uncontrolled expansion of private health facilities and physicians and the proportion of physicians in private sector rose rapidly while those in the MOPH went down. (Wibulpholprasert, S.1999: 5-6) We can see that physician distribution strongly binds with economic status or growth of capitalists and ought to be changed

The shortage of physicians in community hospitals will persist if there are no changes from the past results of the ignorance of the capitalistic governments. Allowing the medical professionals to have the high power of autonomy, so the medical professionals have many opportunities to manage the health policy, the MOPH organization and control each other. Since most physicians have western education bases, which have clinical mentality, the policy, the structures of the MOPH organization and the traditions of professions are directed mainly to clinical services and specialization. Thus, if these grassroot ideas of the medical management do not change, the rural community hospitals will lack physicians permanently.

We can say that the shortage of physicians in community hospitals will remain forever because the main structure of community hospitals is based on clinical setting that varies by inpatient beds. The number of physicians in each hospital are set according to inpatients beds not to other associated facilities in the health line such as health promotion or disease prevention. The medical equipment is also supported in according with the inpatient beds. So, by the value of being specialists and the limitations in the structure of community hospitals, in the future, the hospital physician will number:

(a) 10-30 bed hospitals have an upper limit of three physicians
(b) 60 bed hospitals have an upper limit of five physicians
(c) 90-120 bed hospitals have an upper limit of ten physicians.

That is by increasing the physicians to reduce the physician per population ratio and expanding inpatient beds to all community hospitals to be 90-120 beds, it is impossible for the MOPH to upgrade all hospitals due to limited budget. If it is possible, it must take a long time but it is still the clinical setting of health services.

The average physicians in community hospitals is 2.2 per hospital, while the total population in 1995 of the Department of Local Administration is about 39.7 million. The total districts served by community hospitals, excluding the central district, are 780. The average population per district is 50,907, even though the

physicians in community hospitals are as many as ten in each hospital, the ratio will be 1:5,000 and if as low as three physicians in 10-30 bed hospitals the ratio will be 1:16,969. So if the MOPH or the government does not change the policy, the increasing physician production and other strategies will not solve the shortage of physicians in community hospitals because it is a result of the maldistribution from capitalistic domain.

This study shows that there should be better strategies, which can effectively distribute the physicians to rural areas. Since the former methods solve only superficial problems they will compromise the medical professionals until real cues cannot be found. This study also uses the sociological view and methods to indicate and propose methods for solving this problem in the future.

CHAPTER VI

THAI STATE AND PHYSICIAN SHORTAGES IN COMMUNITY HOSPITALS

As mentioned in the former chapter, health policy, which is a social welfare policy, does not always get attention from the government, although it is the main policy that governments use to cite their right in governing. This study will show that the past governments did not pay enough attention to their health policies. Thus they were the important factors that made an inequitable distribution of physicians to rural areas. The causes that made past governments avoid health policy are as follows.

1. Most Thai governments were based on revolution and coup d' etat, reformation and had many side effects as:

1.1 Personnel who composed the governments were mainly bureaucrats. These bureaucrats were used to inflexible bureaucratic rules and regulations. The administration did not change because they had to maintain their high social status. The best way to maintain high social status was to collect resources in their own hand and use the power pretending to help others. On the other hand it was not their original intention to do that.

1.2 The past Thai governments had no stability because since 1932 most of them gained power by overthrowing other governments, so they had to protect themselves from being overthrown by others. Most governments were more concerned their own security rather than health policy.

2.Most governors wanted to hold the power in their groups, so they tried to maintain their socioeconomic status and gain higher status with others. That was the origin of the new capitalism in Thailand, capitals in the hand of new social classes,

called "ruling classes or new elite classes." The national policies were to support the collection of capital in their group and sometimes the governments also acted as the capitalists in some businesses, banking and some industries. Most businesses provided benefit. Health policy and management were not as profitable, making it a second class policy in many politicians' views. Most politicians did not want to deal with health policy and left it in the hands of bureaucratic medical professionals.

3 The MOPH is classified as a second class ministry in the view of politicians, because they cannot gain benefits from the health care policy like other ministries, i.e., the Ministry of Interior, the Ministry of Commerce, theMinistry of Agriculture and Cooperation and the Ministry of Communication. These are the best and easiest targets to gain benefits and collect capital, by capitalistic policy.

4.Because the politicians did not pay attention to health policy, it became the duty of bureaucrats especially the medical professionals. Thus, any policy that disturbs the medical professionals will not be directly used or used by compromise. Also, there is not enough coordination between the health units because they are individually developed in their jobs, the strategies used to solve the physician shortage problem has no unity.

6.1 Thai State Characteristics

This study has mentioned Samutthavanich C,'s concept of the "Three-dimensional state", which he explains is the state that combines three components of obligations together, i.e., security, development and democracy. The uttermost goal of this type of state is security. They have state structures and administration to make the state archive their goals. The main structures are (a) state mechanisms of power and authority to enforce laws on the public and laws to support the right of this structure. (b) State mechanisms for country development, these mechanisms make the state adapt itself to the changing society. The development mechanisms also make the personnel in governments gain benefit from the public in all levels of the society and it is the way to succeed through capitalism. (Samutthavanich, C.1992: 200 in Thai)

Apart from the three-dimensional state of Samutthavanich C., we may clearly consider that the Thai State is a capitalistic bureaucratic state since the great revolution in 24 June 1932. Most governors, who had more opportunity in society for social status and economic status than others, held bureaucratic bases. Many governors and the governments sometimes presented themselves as capitalists in banking, financing, some industrial sectors or state enterprises. In the past, political parties with their cliques had roles in these businesses and tried to use state mechanisms to achieve economic power and protect their own benefits. The governors and their cliques also had both real shares and false shares in these businesses in order to take commissions by state mechanisms without embarrassment. Since the 1932 revolution, there were many cliques that took advantage of political and economic power by using state mechanisms such as the People Party (Khana Rat Sa Don), the Rajjakru clique, Si-Sao clique and other old cliques.

Being a bureaucratic state, most policies as well as health policy were implemented by bureaucrats and technocrats. These groups of people, with bureaucratic bases, had opportunity to use administrative power to implement any policy, so this study will label this type of administration as "Bureaucratic Authoritarian Statism" by the following reasons.

6.1.1 Why is It Called Bureaucratic?

The reasons to label it bureaucratic are:

1 The family backgrounds of most Prime ministers, who were the chiefs of the governments, were from bureaucratic families and most of them were bureaucrats of high ranks i.e., Royal Princes, Chao Phrayas (the noble man of highest rank), Phrayas (lower than Chao Phraya for one rank) and field marshals. The Prime Ministers who had ordinary family background were few, so most were used to bureaucratic rules and bureaucratic methods of administration.

2. Almost all Prime Ministers were bureaucrats before being Prime Ministers, except Mr. Chuan Leekpai and Mr. Banhan Sillapaarcha.

3. All Prime ministers had bachelor degree that can classified to be the social elite.

4. Other ministers and political leaders always were or had to be public officials, nearly retired or already retired public officials and cliques of businessman that had potential power to create any developmental policy for the country (Table 6.1 in appendix). Therefore, Thai bureaucracy exercised a dominant influence over the administration of the affairs of the state; many regulations used in the past assisted for some cliques to gain more benefit from the public than assist public benefit. Therefore, government behavior closely resembled to bureaucratic behavior. They preferred routine work rather than policy-oriented work. They have a tendency to solve trivialness rather than major problems. They have a tendency to focus on immediate problems rather than to plan for long range solutions, and have a general disinclination to face up to problems and needed solutions (Nakhata, T. 1993: 6-7 Thai). Most of them usually were conservatives, they do not prefer changing any pattern of working (Likhit Dhiravegin, 1985: 183 Thai). In policy implementation, the government tended to place its own interests first, together with those of its supporters, instead of being responsive to the public interest.

6.1.2 Why is It Called Authoritarian?

1. Over the past 60 years, most governments in Thailand were formed by overthrowing each other even though they claimed to be democrats. There have been 53 governments in Thailand but 21 of 53 are from the revolutions of former governments. 20 of 53 were from appointments of the Parliament and the Prime Ministers were not the members of House of Representatives (MP). Only 12 of 53 Prime Ministers were members of House of Representatives.

2. Over the past 60 years, the governments that were not appointed by the Parliament governed the Thai society for 23.5 years or 40 percent. For 33.5 years it was governed by the governments that were appointed by the parliament but the Prime Ministers were not MPs; only seven years saw the government appoint MPs and Prime Ministers who were MPs. Because most ministers were not MPs but bureaucrats, they were used to bureaucratic styles of administration using rules and regulations.

3. Over the past 60 years, the governments that had military Prime Ministers govern Thai society for over 50 years. Therefore, most governments did not pay attention to public health policy but paid more attention to security for themselves and their cliques.

Although most governors were authoritarian, not democrat, Thai society totally changed to have a close relationship with capitalism. The changes were in social structures, social processes and the modes of production that initiated capitalism as either monopolists or state enterprises. Changing the modes of production of capitalism led to a division of labor and the accumulation of both domestic and international capital. This also led to increasing demands of workers who had specific knowledge or professionals. These professionals were the important tools for the capitalists to gain more capital. Soon the professionals had potential political and economic roles and blended their benefits with the politicians (Poulantzas, N. 1978: 203-216). So the economical and social development plans of Thailand were developed by way of capitalism.

6.2 Capitalism and Thai State (Government)

Capitalism is the system where capital dominates economic and political sectors. This means that the mode of production in major parts of the economy are in the hand of some dominant group or the "capitalists" while the practice is the duty of other lower groups called the "working class". Alternatively, we can say that the factors of production are the properties of capitalists and the labor is the property of the labor class or laborers sell their labor power to survive. (Sweezy, 1970: 56)

6.2.1 Origination of Capital and Capitalism in Thailand

Capital and capitalism in Thailand originated from these factors:

1. Western capitalists introduced capitalistic modes of production in Thailand since 1855 after the Bowring Treaty in the reign of the King Rama IV. These led to the beginning of rice mills, sawmills, and heavy industries (Petchprasert, N. 1984: 133-137 Thai)

2. The Royalty and the royal treasury in the period of absolute monarchy (before the Bowring Treaty) were monopolists in commercial. Thus, they were able to accumulate large amounts of capital and productive factors so as to be in the capitalistic modes of production, e.g., the establishment of the Thai Commercial Bank in 1855 and the establishment of the Thai Portland Cement Co. in 1915. (Piriyarangsan, S. 1984: 36-52 Thai)

3. Chinese immigrants, under the patronage of the royal family and the noblemen in the period of absolute monarchy, had privileges to be tax-farmers and monopolists in some commodities. Thus, these Chinese groups were able to gain wealth and be the owners of many industries such as rice-mills and sawmills under royal patronage. (Prapaphan, Y., 1981; Sakkriangkai, 1980 Thai)

4. After the 1932 revolution, the feudal capitalists were replaced with a new generation noble capitalist. Most of them were bureaucrats under the patronage of these noblemen. Monopolization, individual monopolies and state monopolies occurred. (Piriyarangsan, S., 1984: 36-52 Thai Ibid.)

5. Capital and capitalism that occurred from 1957 until now were the results of the flood of foreign capital. The capital and capitalistic mode of production rapidly spread throughout the country and were denst in the centers of the country, especially in Bangkok. Bangkok was the absolute capitalism and led to the development of a new

middle class called " petty bourgeois. The petty bourgeois developed themselves to be big bourgeois, i.e., the owners of private hospitals.

From the following we can see that Thai capitalism occurred from the past where the capital was in the hands of the royalty and nobility. After the 1932 revolution, the capital was transferred to the new nobleman and capitalism in Thailand developed following to the world capitalism pattern.

6.2.2 Thai Capitalism Characteristic

From 1932 to the present, the flow of capitalism in Thailand did not stand still; there were adaptations all time. It can be classified into two stages as follows: (1) the period before using the National Economic and Social Development plans and (2) the period using the National Economic and Social Development plans. In this period, the development of Thai society was influenced by foreign capitalism especially from the USA, and medical and public health developments were no exceptions.

A. Capitalism between 1932-1961 The period after the1932 revolution to the time before the First National Economic and Social Development plan introduced a new ruling class with a bureaucratic base. Although this ruling class was able to hold the power in governing, they found difficulties in maintaining their political power because they had low economic power due to insufficient resources. Because they were not the old ruling class, they lacked social supports or a social movement to support their political power. So they used state mechanisms such as laws to support themselves in collecting capital, not by using market mechanisms. They tried to compete with western and Chinese capitalists in Thailand for getting economic sectors back in their hands. By using the state power or state mechanisms, they introduced two behaviors in economic planning in Thailand: (1) rent-seeking behavior, using political power to gain surplus from economic rents, and the (2) rapid growth of bureaucracy that has the potential power to lead the economic planning. This will further discussed in the next chapter. (Laismith. K. 1990: 16-17; Thanapornpan, R. 1988: 164-189 Thai)

There were four strategies that this new ruling class used to buildup their economic power:

1.The establishment of state enterprises to gain benefit from surpluses and the instatement of executives of those organizations to support their political parties. The ruling class appointed bureaucrats to be committee heads of the organizations who receive special allowances; i.e. commissions, bonuses and other fringe benefits. In return, these executives must reciprocrate by being backers. The golden period of state enterprises was between 1947-1957 when Field Marshal Phibulsongkram, P. was the Prime Minister. There were many policies that supported state enterprises; i.e. monopolies to produce some goods and services, monopolies to sell raw materials and medium goods to those state enterprises. Most of these state enterprises produced essential goods for the Thai economy such as starch, rice mills, ice, sugar, liquors, beer, cigarettes, tobacco, weaving, saw mills, matches, paper, printing, leather bleaching, rubber, glass and cement. (Table 6.2)

2. The ruling class had a close relationship with the banking and finance groups and used these groups to back their economic base. This was the result of the Second World War when Thai declared war with Great Britain and seized the Allies'bank accounts 1942. By using government status, they had legitimacy in spending state capital to maintain and expand the banking and finance business groups. In turn, the governments used this economic base to support their personal economic and political power; i.e.. The People's Party had The Bank of Asia for Industry and Commerce (1939) and The Bank of Ayudhya, Ltd.(1945) while the Thai Farmers Bank Ltd.(19489) was a business ally. The Soi Rajakru Clique had Bangkok Bank Co. Ltd. as their base. When they seized power from the People's Party, they also seized The Bank of Ayudhya, Ltd and utilized the benefit from the Thai Commercial Bank Co. Ltd.(1906). The Si Sao Deves Clique had the Union Bank of Bangkok Co.Ltd.(1949), The Thai Military Bank Ltd.(1957) and by the year 1947 they seized the Bank of Asia for Industry and Commerce from the People's Party. After the 1957 coup all these banks was in the hand of Sarit's clique (Thanapornphan, R.1988: 172 Thai)

3. The cliques used political power in supporting its own businesses in the form of passing new laws, special protections, monopolies, privileges, or legal avoidance. At first, the People's Party established their private companies such as the Thai Niyom Panich Co. Ltd. (1939), The Thai Niyom Insurance Co.Ltd,(1940), The National and City Bank of Thailand Ltd.(1941), Thai Niyom Phanfah Co. Ltd.(1950), Thai Niyom Bangrak Co. Ltd.(1950), W.V.O.Kasetra Niyom Co. Ltd.(1950) and the Jangwat Trading Company. The Party was the biggest shareholder of all these companies and these companies rapidly grew from 1941 to 1944 (Ruamsin, P., 1978 in Thai; Piriyarangsan S,.1983: 114 English). An army group led by Field Marshal P. Pibulsongkhram, Lt gen Pin Chunahawan, Col. Pao Sriyanond and Col. Sarit Thanarajata seized power from the People's Party on November 8, 1947. They did not repudiate the form of production called "State capitalism" established by the People's Party; however, they tended to put more emphasis on setting up their own private enterprises and protecting their patron companies. From 1947-1957, the members of the coup were divided into two groups because of conflicting economic interests among themselves. The first group was the Pin-Pao Clique or Soi Rajakru Clique, composed of Field Marshal Pin Chunnahawan, Col. Pao Sriyanond, Brig. Gen Siri Siriyothin, Col. Praman Adireksarn, Col. Chartchai Chunnahawan. The other was the Sarit Clique or Sisao Deves Clique, this clique composed of Field Marshal Sarit Thanarajata. These two cliques also used political power to support their own private companies as well as gain benefits from state enterprises. The Soi Rajakru had private companies, i.e., the companies that began with " Thaharn Co-operation" or "Thahan Samakkee" in Thai, "Thahan" or "Phan Suek" or "Saha". They also were chairmen of 104 state enterprises. These were 47 state enterprises of The Ministry of Industry, 18 state enterprises of The Ministry of Agriculture, 5 state enterprises of The Ministry of Communication, 4 state enterprises of The Ministry of Economics, and 30 state enterprises of The Ministry of Interior. The name of private companies and allies of the Sisao Deves Clique began with "Eastern or Burapha in Thai" or "Wijitra".

We can see that there are close relationships between governors and capitalists by repaying each other. The businessmen gained conveniences from the governors, in turn the businessmen repaid them by giving special allowance, shares

without payment, or donations (Thanapornphan, R. 1988: 173-175; Pattamanond, U. 1984: 240-241 Thai)

Apart from the influence of the domestic ruling class, Thai capitalism was influenced by foreign capitalism. The most powerful capitalism was that of the USA which tried to invade and dominate every country as a dominator in capitalist economy after The Second World War. The USA was not affected by the Second World War, so it used the economic reconstruction plan to enter other countries under the Marshal Plan. Under this plan it implemented new strategies to control the world economic system, i.e., the International Monetary Fund (IMF), the World Bank, or the International Development Association (IDA). This was to urge free trade and capitalization. This plan also guided economic development of many countries in the Indo-China peninsula such as Vietnam, Indonesia, Malaysia, Singapore and Thailand.

Thailand was the first country that received this proposal. In the year 1950, there were three agreements about economic and technological assistance between Thailand and the USA. The first was the Fullbright Foundation Agreement (1 July 1950). The second was an agreement on economic and technological assistance (19 September 1950) to establish the Bureau of the Budget (1959) by the advice of American advisers or Public Administration Service. The USA gave scholarships for Thai students to study in the USA and moreover, had a chance to manage Thai educational systems. So the American style of education was introduced into all levels of education in Thailand from university to primary school. The American-educated also adopted American capitalism; these people had more chance to be executives in many organizations. Thus, these organizations were dominated by American ideology. The last was the agreement for military assistance in 1 October 1950 that led the Thai military to follow American styles also (Chalermtiaranond, T. 1983:119-120 Thai).

The investment from the USA and other capitalists still did not have full power in Thailand in the government of Field Marshal P. Pibulsongkram and Soi Rajjakru Clique because of nationalistic policy. When Field Marshal Sarit seized power from Field Marshal P. Pibulsongkram and the Soi Rajjakru Clique government

by coup, he widely accepted the capital from America to support his political power. The laws that were implemented to support the foreign capitalists were the 47th and the 49th coup's decrees. By these decrees, foreign capitalists could fully invest in Thailand. Moreover, by 4 July 1959, the government began writing the National Economic and Social Development Plan under the advice of American advisers; this was the starting point of full power of American capitalism in Thailand.

B. Capitalism from 1961 to the Present Time, Bythis period, America had fully dominated the Thai government in economic planning. The government had developed "the National Development Plan" under the advice of America and theWorld Bank. American sent Mr.John A. Loftus and Mr. A. J. Creshkoff to be advisers. This plan was developed to be the First National Economic Development Plan (1961-1966) and the American advisers had essential role in the 3rd plan. Even though Thai technocrats organized the later plans they were all educated from America, i.e. the fourth plan was developed by Mr.Weerapong Ramangkoon and Mr. Somjit Noppakhun. The fifth plan was developed by Mr.Weerapong Ramangkoon and Mr.Piyasawat Armaranandh. The sixth plan was developed by Mr.Piyasawat Armaranandh. Thus, the economic development of Thailand was dominated by American style economic development because the elite and ruling classes accepted and introduced the idea to Thai society (Bell, 1982). This explains clearly why the present government solved the economic crisis by strictly obeying the IMF policy (the author).

A great change in Thai capitalism occurred in the year 1973 when the People's Coup seized power from the military government. This introduced new opportunities for the capitalist, in central or local areas, to have political power to direct economic policy. These businessmen entered politics by themselves. Most of the local capitalists were elected as members of the House of Representatives and also as men in their patronage. Thus it was very easy for local capitalists to be ministers. Although they were not members of the House of Representatives, they patronized the political party in their local area. When their political party dominated the government; they gain benefits by the support of the government, i.e., concessions,

monopolies and construction contracts with the bureaucratic offices. Moreover, after 1986, big capitalists began entering politics by having close relationships with politicians. Some of them were the ministers, so during this period the ratio of businessmen in the cabinet increased. Thus, the policies that the cabinet implemented were only for their interests not for public. Civilians are not stakeholders in any policy and the government always ignored their ideas (Thanapornphan, R. 1990 in Thai Ibid.).

The changing of Thai economy into capitalism led the changes of social structure and social class:

1. The social structure has more complexities. The economic power changes from the feudal class to the new elite or ruling class and the change in the mode of production introduces new working class called the "labor class". This labor class is the major population of the country but they have less economic and political power. They cannot meet their needs even though it is their right. An example is that laborers in the small and medium sized enterprises cannot organize labor unions. Moreover, the government legislates laws that forbid labor union establishment.

The public health policy has the same criteria as other public policies; the people have no power to set public health policy by themselves. The implementation of any health policy is the responsibility of the government and mostly is the responsibility of the bureaucrats who are medical professionals. Thus the implemented health policies are for medical professional interests rather than public interests. The distribution of physicians to the rural areas also is not for public interests, so only the newly graduated physicians are distributed yearly to replace outgoing physicians in community hospitals. Rural civilians must rely on newly graduated physicians.

2. Thai government agencies underwent an unprecedented expansion, which had the character of empire building rather than benefiting the larger society. After the 1982 reformation of the Thai bureaucracy in the reign of the King Rama V, the growth rate within the Thai bureaucracy was enormous and the total number of government

officials increased accordingly. Most of these government officials were in middle class, having higher education and important roles in policy making. The middle class allied with government officials, they worked in the private sector as businessmen or landowners. For this reason, a new social class called the "petty bourgeoisie", the important ones are the petty bourgeoisie, who are government officials. This group role-plays with government mechanisms, they also the supporters to both domestic and foreign capitalists

The petty bourgeoisie government officials have special characteristic. They perform various functions of the governments but they do not fully perform their development functions. Generally speaking, Thai bureaucracy lacks a sense of responsibility toward the general public and those to whom it provides services and the sense of integrity and honor. Because these concepts have never been given too much attention, officials move to act in their own interest rather than in public interest, not fully act as government officials. Meanwhile they cannot fully act as bourgeoisie because they must be responsible for the government policy in development and for helping the people to help themselves and follow through the national policy. They are inclined to combine their interests with the public interests and to be social democrats. The policies do not show that they actually support capitalists but do not truly oppose capitalists. In economic development there is always a mixture between capitalistsm and social welfare. Many policies try to include state welfare to reduce class conflict. The welfare in medical services also is frequently used to support this purpose (Samutthawanich, C.1992: 104-110 Thai).

In medical and health care systems, medical professionals have specific knowledge and higher education than others. They can develop themselves to be a new leading social class and are stakeholders in health policy making. They compromise the public interests with their personal interests. The distribution of public health facilities countrywide and private hospital promotion using specific laws can be seen earlier in the Fourth Economic and Social Development Plan. After this, there is a policy to grant tax exemption for newly established private hospitals. When the group's interests are combined with public interests, health policies are confined to the

groups' rather than the public's interests. The policies of physician distribution to rural health facilities are examples, Most policies are confined with newly graduated physicians not the mature, experienced ones. Thus the rural people are disadvantaged

6.3 Government in Capitalism and Health Policy

Since most Thai governments after the 1932 revolution gained their political power from coup rather than by election, the governments' priority was stability not public interests. Most cabinet members were government officials and most policies were from the administrative branches rather than from the legislative. Sometimes politicians were able to be ministers but they lacked specific knowledge or were not familiar enough with the bureaucratic administration to make policies. They depended on technocrats who were the executives in the ministries. Then, most policies were from government officials rather than politicians (Thanapornphan, R. 1990 Thai Ibid.).

These examples will show that the governments and politicians show little interest in public health policy when government officials dominate public health policies:

1. The past Prime Minister held little interest in health affairs. In the 60 years of the Office of the Prime Minister memorandum, the 6th, 9th, 10th, 12th, 13th, 14th, 15th and 18th Prime Minister did not mention health affairs as their honorable task. The tasks they mentioned were the development of infrastructure, industrial and income development; mostly concerned with materials not health affairs* (60 years of the Office of the Prime Minster memorandum, 1992)

* In the 60 Years memorandum of the Office of the Prime Ministers 28 June 1992 print by the Office the Prime Ministry. This book interviewed the past Prime Minister, M.R. Seni Pramoj, Mr. Poj Sarasin, Field Marshal Thanom Kittikhajon, Mr. Sanya Thammasak, M.R.Kruekrit Pramoj, Mr. Thanin Kraivixian, Gen Kriangsak Commanan, Gen.Chartchai Chunnahawan and Mr. Anandh Panyarachun. Only Field Marshal Thanom Kittikhajon mentioned the health policy but it was only in increasing the number of hospitals.(60 Years Of The Office of the Prime Minister Memorandum,28 June 1992: 77-453)

2. The politicians are not interested in the MOPH and classify it as a second class minister. Politicians from the larger political parties, that are leaders in government forming, do not want to be ministers of this ministry. The ministers of this ministry are only from medium and small political parties. We can see this evidence since the government formation in 1976, in which the Minister of Public Health was from the members of the House of Representative.

2.1 In the 1976 general election, The Democrat Party, the largest party, became the leader in forming the government; M.R. Seni Pramoj was the Prime Minister. The minister of the MOPH was Mr. Sawad Kamprakob from the Kasetsangkhom Party* and the deputy minister was Mr. Anand Chaisaeng from the same party, which had only 8 members of the House of Representative (Siam Chotmaihet, 1976: 599 in Thai).

There was once an important event showing that the politicians were not interested in the MOPH. After one day of the royal command to appoint them by 8 January 1976, Mr. Anand Chaisaeng, who was appointed to be the deputy minister of the MOPH, resigned by 9 January 1976 (Siam Chotmaihet, 1976: 32 in Thai). When this government reformed their cabinet, the minister of the MOPH still was Mr. Tawee Junlasab from the Dhammasangkhom Party, which was a medium sized political party (Siam Chotmaihet, 1976: 1024-1025 Thai).

2.2 In the 1983 general election, Gen. Prem Tinnasulanondh became the Prime Minister for the second time. The minister of the MOPH was Mr. Marut Bunnak from the Democrat Party, whose membership ranked third of the political parties that formed the government then** (Siam Chotmaihet, 1983: 707 Thai).

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* In the 1976 general election, the Democrat Party is the largest party to form the government. It had 114 members of the House of Representatives. The second was the Chartthai Party 56 members of the House of Representatives, the third was the Dhammasangkhom Party 28 members of the House of Representatives, the fourth was the Kasetsangkhom Party 9 members of the House of Representatives etc.

** In the 1983 general election, the first party was Kitsangkhom 92 members of the House of Representatives, the Chartthai Party 73 members of the House of Representatives, the third was the Democrat Party 56 members of the House of Representatives, the fourth was the Prachakornthai Party

2.3 In the 1986 election after Gen. Prem Tinnasulanondh dissolved the parliament for the second time, a politician from the Democrat Party, the largest political party, became the minister of the MOPH.

2.4 When Gen. Chartchai Chunnahawan was Prime Minister; he reformed his cabinet several times. The ministers of the MOPH were still from medium and small sized political parties. These were Mr. Chuan Leekphai and Mr. Marut Boonnak from the Democrat Party, Mr. Prachuap Chaiyasan from the Chartpattana Party and Mr. Piyanat Vajchataporn from the Kitsangkom Party*** (Siam Chotmaihet, 1988: 816).

2.5 The evidence, which shows that the politicians are not interested in the MOPH, was in the period of Mr. Banhan Silapaarcha's appointment. Mr. Sanoh Tienthong was appointed to be the minister of the MOPH. He was very disappointed because he wanted to be the Minister of the Interior. To be the Minister of Interior, he claimed was the golden goal of his life. It led to disagreement with the Chartthai Party that could be seen in several media as follows:

" Mr. Sanoh Tienthong used to be committee, deputy leader and secretary general of the Chartthai Party. He could make the Chartthai Party win 91 members in 1995 general election and led the Chartthai Party, which Mr. Banhan Silapaarcha was the leader, in forming the government. Mr.Sanoh extremely hoped to be the minister of the Minister of Interior but Mr. Banhan, the Prime Minister, became the minister of this ministry as well as the Prime Minster. Mr.Sanoh was unwillingly sent to be the minister of The MOPH. He must be the doctor without the medical degree, although he studied law from Sri Pathum University. (Phanpruk, P. 1996: 21 Thai)

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36 members of the House of Representatives, the fifth was the Chatprachathippatai 15 members of the House of Representatives etc.

*** In the 1988 general election, the Chartthai Party had 84 members of the House of Representatives, the Kitsangkhom Party had 54 members of the House of Representatives, the Democrat Party had 48 members of the House of Representatives, the Ruanthai Party had 35 members of the House of Representatives, The Prachakornthai Party had 31 members of the House of Representatives, the Ratsadorn Party had 21 members of the House of Representatives, the Prachachon Party had 19 members of the House of Representatives and the Puangchon Chaothai Party had 17 members of the House of Representatives.

" Everybody in the family sees unanimously that our elder brother "Mr. Sanoh" should retire from the politics after reaching the highest point if he is appointed to be the minister of Ministry of Interior. (Vitaya T. (Interview) In Daily Manager. 9 December 1996: 27 Thai)

" At last Mr. Sanoh Tienthong, the Wang Nam Yen god and the secretary general of the Chartthai Party, is brokenhearted by Mr. Banhan that dissolved the parliament unexpectedly. So he must wipe his tear and put himself into Gen Chaowalit Yongjaiyuth' s arms with his clique of 60 person. This is to be the secretary general instead of Mr. Sukkhavit Rangsitpol and let the Chartthai Party, which he has a share in establishment, disperse. It may be foolish to stay in the Chartthai Party because the people do not trust in the party anymore. (Doubtlessly he is afraid of not being the minister, so he must make use of Gen Chaowalit Yongjaiyuth). He has given the old reasons of transferring the party that his concepts do not match Mr.Banhan's concepts. Moreover, he criticized Mr.Banhan of only interest in his clique interests and of having no truthfulness. Also the 23 year wait for Minister of the Ministry of Interior is disappoint though he has hoped to be since he was the member of the House of Representatives at the first time. This treatment must be replied (Thansetthakit, 4 October 1996: 1-2 Thai).

3. Most of the ministers of the MOPH were former government officials. From 1942 to1973, before the People's Coup, 10 out of 16 ministers were from the government fighting force. From 1973 to now, the other 24 ministers were almost all government officials before. Their administration is based on the bureaucratic administration that cannot breakout of the bureaucracy to make any policy.

Moreover, most of the MOPH ministers were in their duties for a short period average of 1-2 years per person. The shortest period was the 17 days of Mr. Tawee Bunyakiat and the longest is the six years of Phraya Borirakvejchakarn. Because of being in duty for a short period, ministers from the cabinet have no time to deal with long-term health policy planning and let the health policy planning tothe medical professionals in the MOPH.

4. In the early stages, the executives, policy makers in the MOPH, mostly were medical professionals. Because they were in central facilities, their policies of physician distribution and input from local authorities were weak. Dr. Damrong Bunyeun said at 19 October 1989 as follow.

"One weak point is that the elite fallaciously think that they had best learning perception, up-to-date knowledge but it is not true. Like us that work in the MOPH, will encounter difficulty working in the rural areas unless there is communication with the village. We must learn some intellect from the villagers as well as local elite, which we have had known before. So fallacious thinking and being in power will make us emcounter difficulty doing the right things" (Bunyeun, D. 1995: 38).

5. The academic medical professions have highest elite power over the other medical professions. This means that they can direct the policy of both physician production and physician distribution which ought to be the major obligation of the MOPH because the MOPH is the major health care provider in Thailand.

6.4 Rural Medical and Health Service Policy, Physician Production and Distribution Policy

This study has divided the western Medical and Health Services Policy, Physician production and Distribution Policy in Thailand into three stages.

1. The period of absolute monarchy, 1888-1932.
2. The period during the 1932 revolution and before the declaration of the First National Economic and Social Development plan.
3. The period during the First National Economic and Social Development plan up to now.

6.4.1 The Period of Absolute Monarchy 1888-1932

Western medical services and physician education during this period was a royal decree of King Rama V to PROVIDE modern medical services to his people. Meanwhile there were no Thai physicians educated in western medicine. There were only foreign physicians from western countries who had immigrated to Thailand. The King set up western style medical education and established the Nursing Department (Krom Phayaban) to manage medical services and physician production affairs. At

first there were few hospitals in Thailand, then, the obligations of the Department of Nursing became:

1.To control and manage Siriraj Hospital affairs

2. To manage medical education by the establishment of the first medical school in Thailand called "Paetthayakorn medical school" by May 1889. The purpose of this medical school was to produce new physicians to practice in the newly established hospitals. At first it was a three-year curriculum and extended to a four and finally a five-year curriculum by the year 1897, 1913, and 1917 respectively. During this year there was Thai traditional medical education in the curriculum but after the government received assistance from the Rockefeller Foundation by the year 1922; the medical school gave up Thai traditional medical education in the curriculum. The medical education was western style education since then, the first step to capitalism.

3. To manage and control other hospitals such as Thepsirin Hospital, Burapha Phayaban Hospital, Nursing Home Hospital, Dr. Housse Hospital, Psychiatric Hospital and Samsen Hospital.

4. To freely inoculate and vaccinate Thai people

The King directly controlled the Nursing Department for a few years after the establishment. By the year 1889 it moved to the Ministry of Public Instruction (Krasuang Dhammakarn or the Ministry of Education now). During this period the government had the policy to distribute physicians, called "provincial doctor" or "paet pra cham mueng", to the provinces. The government also established the school of midwives and nurses by the year 1896 under the responsibility of the MOPH; to educate the nurses and midwives now are under the MOPH responsibility. The MOPH has no shortage problem in these professions.

By the year 1912, the Nursing Department moved to the Ministry of Interior, the policy to distribute the physicians to the rural area persisted. There were few physicians then; the government could provide only one physician in some provinces, not all. The physicians then still had no unity, the government could directly command from the center; One example was the 26th and 27th rule in the handbook of public

health administration forbade provincial doctors to have private drug stores and receive doctor fees from patients. The government had no policy to establish medical facilities in the remote areas; they only urged the local authorities to manage health facilities by themselves because it was useful to the locals (15 Years of MOPH Memorandum, 40-42).

6.4.2 The Period During the 1932 Revolution and Before the Declaration of the First National Economic and Social Development Plan

A great change after the 1932 revolution was that the government received medical services as their obligations. They tried to establish health facilities in every province. The government had established the Bureau of Social Doctor (kong-paet-sangkhom) to respond to this policy. There was a direct command from the minister of Ministry of the Interior to the Department of Public Health (the former Nursing Department) to set the policy of establishing provincial hospitals.

By the year 1942, the government isolated the Department of Public Health from the Ministry of Interior and upgraded it to be the Ministry of Public Health. At this time the bureaucracy had full influence on public health policy. The government officials that had political power in their hands mostly were members of the fighting forces or the police force. The committees on reforming health affairs, appointed by Field Marshall P. Pibulsongkhram, composed of up to 6 to 11 members of fighting forces and the police force. By this reason, although they established the MOPH by 7 February 1942, the MOPH did not concern military health affairs, police health affairs or the health affairs of the Bureau of Trains.

During this period the MOPH had full authority in physician education and physician distribution. The schools of medical education, dentistry education and pharmacology were collected to be in the Bureau of Medical Universities and the MOPH commanded this bureau. The MOPH could rapidly increase physicians with academic degrees from 18 by 1928 up to 1,758 physicians by 1956. When combined with the 564 certificated physicians, there were a total of 2,248 physicians then.

The government policy on public health affairs from 1942 to 1961 emphasized infrastructures such as increasing the health facilities in the provinces. The loss of this attempt was the concept of long term planning for future patterns of medial services that matched national need. Thus most policies confined themselves with the quantity rather than the quality of health facilities. Examples are found in the government policy.

1. Field Marshal P. Pibulsongkram and his government (16 March 1942) stated that "the government will provide more health facilities for the population as increasing the number of local health offices (Suk-sa-la), increasing numbers of hospitals for general and specific diseases"." Then he stated the policy of physician production as "the government will increase the number of the entrants for medical education, dentistry education and pharmacology. We will provide the standard education for these student and will provide continuous education for physicians and pharmacists also."

2. Major. Khuang Abhaiwongse and his cabinet (1 August 1944), Mr. Tawee Boonyaket and his government (31 August 1945) and Major.Khuang Abhaiwongse and his second government (31 January 1946) did not state any health policy.

3. Mr. Pridi Banomyong and his cabinet (24 March 1946) stated the policy on increasing the number of physicians and health facilities as. "Furthermore, now there are inadequate numbers of health facilities and physicians, as the former government had the idea to increase them, this government will follow that policy to get success in the future."

4. Mr. Pridi Banomyong and his second cabinet (11 June 1946) stated that "we will increase the number of new graduated physicians" and "we will establish new hospitals in every province."

5. Rear Admiral Thawal Thamrong Navasawadhi and his cabinet (24 August 1946) stated that "We will provide more of these...provincial hospitals, local health offices in the crowded local areas"

6. Major Khuang Abhaiwongse with his third and fourth cabinet (10 November 1947 and 21 February 1948) stated that "We will distribute the specialists to the rural areas" and "we will hurriedly establish new hospitals in the provinces that have not."

7. Field Marshal Plaek Pibulsongkram and his third cabinet (8 April 1978) did not state any health policy. By 22 June 1949, he and his fourth cabinet stated that "we will reform the government officials both quantity and quality. By 24 March 1952, his eighth cabinet did not state any health policy but his last cabinet (21 March 1957) stated that "we will increase the number of physicians".

This period we can see that there are two diversities of health policy produced by the governments. The first is to increase the number of hospitals and other health facilities. The second is to increase the number of physicians. They never think of long term planning of national health needs. It seems that the government uses these policies to claim their right in governing because the government has no stability at all. Almost all governments have had very short terms, so the development of medical and health services are in the hands of medical professionals that are government officials in the MOPH and in the universities.

During this period the government could rapidly increase the number of physicians because physician production was the duty of the MOPH. The number of physicians increased up to 2,248 by the year 1956 but more than a half of these physicians worked in Bangkok. Most of them worked in medical schools and had studied abroad. They have been leaders in health policy making up to now. The physicians could develop and refined their profession during this period because the government had no roles in health policy making. The governments only sought their stability not public health policy.

Medical professionals joined to establish a society called the "Thai Medical Society"*. Most members were physicians in the universities. These physicians had high power to direct physician production and physician distribution. This can be seen in the report of the First Conference on Medical Education of Thailand at Bangsaen Chonburi, 25-30 November 1956. There were ideas of isolating the medical education from the MOPH and they succeeded three years after. By 1959 the medical school moved from the MOPH to the Offices of the Prime Minister until in 1972 when it moved to the Department of University Affairs. The MOPH has no responsibility in physician production, though the MOPH is the biggest user of physicians. This is one reason why the policy to distribute physicians to rural areas is not successful.

During this period the number of physicians in Thailand was very few and the MOPH had no distinctive policy to force physicians to work in rural areas because the MOPH had no authority to produce physicians. The best way that could be done was to stimulate by incentives and scholarships to those working in rural areas. However, by the year 1950, few physicians accepted this proposal and most physicians who accepted revoked it. The idea to use the incentive for stimulating physicians to work in rural areas has not changed until now although ineffective (15 Years of the MOPH Memorandum, 94-95)

6.4.3 The Period from the Declaration of the First National Economic and Social Development Plan to the Eight National Economic and Social Development Plan

By the year 1961, the government launched the First National Economic and Social Development Plan. The purpose stressed economic development so they ignored social development. The governments ignored public health policy which is the development policy also. We can see that the name of the first plan is only the "the First Stage National Economic Development Plan 1961-1963-1966" and "the Second Stage National Economic Development Plan 1964-1966"." In these plans there were

* Thai MecicalSociety was established by 13 September 1921. Most members of the committee were physicians in the universities and the executives the MOPH(Openning ceremony of the Thai Medical

no distinct health development policies but the plan had included the health affairs in the last priority as Preecha Uppayokin said:

" Since the declaration of the First National Economic (and social) Development Plan up to now, the medical and public health policy gradually grows. If we carefully look into the First National Economic Plans, we can see that the medical and public health policy is in the last priority. This is because the government thinks only to make better health of the people in order to use as the resource of economic development. This plan has no special characteristics. It is used to claim that the government tries to develop the country as the United Nations advice although at the end of this plan there are policies of health promotion, disease prevention along with the countrywide expansion of medical services (Uppayokin, P. 1985:147-148).

The public health development policy does not appear until the Third National Economic Development Plan. There is the Third National Public Health Development Plan to support the National Economic Development plan. By examining this plan we can see that the government did not succeed or did not pay attention to the distribution physicians to rural areas because 2,300 out of 3,172 physicians practice in Phranakorn and Dhonburi Province or the Bangkok Metropolis now. These physicians working in Bangkok have important role in medical and public health policy planning.

This period the government lacks long term public health planning that affects the physician distribution up to now. These are as follows:

1. Lack of long term planning for the direction of medical services of the country and western style of medical professionalism. Furthermore the governments emphasized the power, authority, materials and quantities to solve the maldistribution of physicians to the rural areas. They did not try to alter medical systems of the medical professions. The government policy in the first to third plan then were confined to only the expansion of health facilities and medical schools.

"The MOPH will hold this trend; medical service development will be by establishing new hospitals and reforming the old ones in the provinces that are crowded, and to establish hospitals in the

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Sociiety' s Building Memorandum, 1 February 1968)

important districts and have high necessity."(National Economic Plan 1961-1963-1966: the second stage 1964-1966, 162)

Field Marshal Sarit Dhanarajata, the Prime Minister then, also had only the idea to increase the number of physicians without any other idea of medical and health policy planning. This can be seen from his doctrine for the newly graduated physicians by the years 1963-1964, in the Vejchanisit book as:

"The government has strong intention to develop this country in every aspect as well as the prevention of diseases and medical services for the well-being of Thai people. The government also will increase the number of physicians and nurses to serve the increasing of population due to increasing birth rate daily and yearly. The government also considers that the population is the power of the government. If Thailand has an increasing population but all of them have ill health, it is worse for the nation. This is why the government cannot ignore and have used large amounts of funding in medical and health affairs, also the medical universities in the rural areas at Chiang Mai and soon at Khon Kaen. The government desire to develop Thai medical affairs and produce more physicians to help each other in medical services for the population. Any country cannot develop itself well if the medical and health affairs do no develop because the population is not healthy. So one of the four essential needs of the people is medicine, those, who can treat a patient, must graduate from the course of medical schools." (Dhanarajata, S. 1963 Thai)

About health affairs, the First National Economic Plan had only "will reform and increase the number of health centers by establishing enough first class health centers or second class health centers in the districts. These first class health centers will serve the primary health care needs of the patients and promote people's health in the remote areas and area that is far from hospitals". (National Economic Plan 1961-1963-1966: the second stage 1964-1966, 161-162 Thai)

In the first plan, the MOPH sent representatives to make this policy, showing us that it had no authority to produce physicians. In this plan the MOPH cannot fix the number of physicians, so it uses the word "ought to" instead of "will".

"16.To train health officials over the next 10 years, the physician and other staff' production 1. Physician ought to produce 400 persons per year (now 250 physicians per year)". (National Economic Plan 1961-1963-1966: the second stage 1964-1966, 176 Thai Ibid.)

2. The government and the MOPH never fixed the proportion of GP medical services and specialists, so medical services were directionless. Next technology-based medical care dominated the medical services because it was dominated by the medical professionals in academics. Thus, this plan emphasized medical services with high technology by specialists. This can be seen in the First to the Second National Economic Development Plan.

"In medical affairs, modernization of medical care and investigations will make more efficient medical care. This will decrease the number of chronic patients in the hospital and the bed occupancy rate will be better. (National Economic Plan 1961-1963-1966: the second stage 1964-1966, 175 Thai Ibid.)

In contrast to this idea, medical technology does not decrease chronic illness but prolongs the lives of patients with chronic illness. Then the bed occupation rate of chronic patients in each hospital rapidly increases.

3. The MOPH cannot fix its demand for each specialty because the MOPH has no authority in medical education. By this reason, the MOPH cannot effectively distribute physicians to the rural areas unlike the nurse education that the MOPH can do by itself. Thus, the nurses are not short now. According to Professor Sem Prinpuangkaew:

"By the year 1959, The MOPH had to lose the Medical University to the Office of the Prime Minister. The Medical University is in charge of the Office of the Prime Minister. So the producer and the users are more and more estranged and lead to the health personal management problem up to now." (Pringpuangkaew, S. 1997: 140 Thai)

In the Third National Economic Development Plan (1972-1976), although the policy makers noted that the problem of the maldistribution of physicians to rural areas was from the policy with no physician distribution proportion to the health need of the country in each specialty. They not only did not make any policy but also supported specialty training and medical care by specialists instead of by GPs, even in rural areas. These were written in the plan as:

"The Third problem, there is no appropriate fixed proportion between physician demand in each specialty and the health care needs. The rural physicians to rural populations ratio is still very low." (The Third National Economic Development Plan 1972-1976, 420 Thai)

"The second strategy, the government will promote, is medical treatment by specialists to rural populations and will establish regional hospitals in every region. The government will provide specialists in every specialty in the regional hospitals." (The Third National Economic Development Plan 1972-1976, 423 Thai Ibid.)

The government has policy to reallocate other health personnel especially in overcrowded areas to solve health personnel shortages. This policy is not effective in physician reallocation. The health policy makers try to initiate the compulsory health services to medical students in the Third National Economic Development Plan but it was not available until the next plan. (The Third National Economic Development Plan 1972-1976, 425 Ibid.) This is the easiest strategy to distribute the physicians to the rural health facilities because it forces only the new physicians, not the old ones, so it has no adverse affects to the government.

By exploring the Third National Economic Development Plan (1972-1976), we can see that the MOPH does not deal with medical education. Though the chief heading of the National Economic Plan has the target to produce physicians, the health development policy of the MOPH does not mention this matter. The MOPH has only the policy to settle first class health center (district hospitals then) in every district, the policy to produce other health personnel such as nurses, midwive, not physicians (The Third National Economic Development Plan 1972-1976, 431-437 Thai Ibid.)

During the fourth National Economic and Social Development Plan, the dissociation of policy makers, which affected health policy planning and physician distribution to rural health facilities, can be seen distinctively. These are:

1. In the period between the Third and Fourth National Economic and Social Development Plans, the government had dual policies. The first was to promote the private health sector by tax exemption for imported medical equipment and income tax

exemptions for newly established private hospitals by the commitment of the Board of Investment*. Establish private hospitals in Bangkok was very easy during this period because the deputy secretary general of the Board of Investment had total authority to approve the petition as representative to the Boards. (Kusripitak, S. 1989: 88) This is the capitalist medical care that the health resources absorbed at their center. Meanwhile, the government had the second health policy. This was to establish the district hospitals in every district within four years (Thai Public Health Assembly, 1988: 112) and to distribute physicians to work in those hospitals. This contrasts the first policy that supports private hospitals.

2. There was no coordination between the policy makers in different health organizations. This can be seen in the fourth National Public Health Policy of the MOPH (1977-1981) that is only the MOPH development policy not the national health development policy. The plan for health personnel development in this policy had stated that increasing physician production to serve the increasing demand of the country is not in the boundary of this plan, although this plan has other health personnel production policies. We can assume that the MOPH leaves the physician production to the authority of the medical professions although there must be coordination between these organizations.

"a. To increase health personnel. 1.Physicians, it is known that physicians in Thailand are not enough. The number of physicians cannot catch up with the increasing demand for medical care. How to increase physician production of the medical school is not in the boundary of this plan." (The MOPH, 1977: 109 Thai)

3.The governments do not indeed want to manage the medical and public health problem. They do not try to make practical health policy as the policy to establish "Thai National Public Health Council" or the National Committee on Public Health. The council or the committees are for the good coordination between health

* The Board of Investment was established by the year 1966 after the enactment of Industrial Promotion Enact 1954. By the year 1977 the government renamed it as the Investion Promotion Enact 1977.

facilities to follow the National Health Development Policy but it is not yet established. (The MOPH, 1977: 21 Thai Ibid)

In the Fifth National Public Health Development Plan (1982-1986), the MOPH had accepted that the physician shortage was a chronic problem either the productive capacity or the distribution facility. Most physicians worked in Bangkok or in large towns. The MOPH had stated that the factors that affected physician distribution to the rural health facilities were economic factors, the socio-cultural factors, political factors and administrative factors. Finally the MOPH concluded that maldistribution of physicians was due to the defects of medical education and continuous medical education, the defects of entrance examination to select medical students, as well as the defects of medical schools, their curricula and their teachers (The MOPH, 1982: 118 Thai). By these reasons the MOPH does not set any policy to manage the total medical system because it affected most physicians. The MOPH tried to use only the policy that dealt with the newly graduated physicians, meanwhile the MOPH used the policy that accepted the private sector to support the medical education (The MOPH, 1982: 119 Thai Ibid). These reasons reflect that the health policy makers are the medical professionals because the policy denies managing the total physicians but selects to manage only the new ones and support the old ones. These methods used to solve the physician distribution in this plan are those that deal with the medical education: (1) To reform the laws and regulations of health personnel production and development. (2) To reform the selection methods and entrance examinations that are able to select for the good attitudes for study in these fields. (3) To reform the curricula and study methods that agree with proper practice in rural areas. (The MOPH, 1982: 125 Thai Ibid)

Despite laws and regulations, the distribution of physicians to rural areas deals with newly graduated physicians, not medical systems. The MOPH uses only administrative methods to solve the problem and claims that these are to motivate the rural health officers. These are (1) using the contract of compulsory health services with medical, dental, pharmacy, and nursing students and sending them to practice in

the rural areas (2) reformation of the administration in district levels to ease work in rural health facilities (3) conciseness of recruitment process to support work in the rural health facilities and incentive payment for those working in remote and risky areas and (4) reformation of continuous education courses and more chances for health personnel to enter continuous education. (The MOPH, 1982: 126-127 Thai Ibid.)

We can see that the government and the MOPH avoid disturbing the regular medical system of medical professionals. Many strategies are used but they cannot attract the physician to stay in rural areas for a long time because most strategies are only for the new graduates not all physicians.

The evidence, which show us that the policy makers in health development are government officers in the MOPH and that there is poor coordination between different health organizations, is clearly seen in the Sixth (1987-1991) and Seventh (1992-1996) National Public Health Development Plans. The policy makers never mention physician production in these plans. They only mention about other health personnel education which is lower than physician education. (The Sixth National Public Health Development Plan, 1987: 159-173, The Seventh National Public Health Development Plan, 1992: 465-488)

So, we can see that the capitalist government does not pay attention to health policy and leaves it to the responsibility of the government officers in the MOPH. Most policy makers in the MOPH are physicians such as Dr. Sanoh Unangkoon, the former secretary general of the Office of the National Economic and Social Development Board, who said in his lecture to the members of the Thai Social Society on 28 July 1975.

" The most interesting thing is that at first, the physicians have no basic knowledge in policy planning. After they are trained in this subject, they can do well in public health planning". (Unangkoon, S. In Pringpuangkaew, S. 2540:145 in Thai)

During the seventh National Economic and Social Development Plan, the dissociation between the MOPH (the physician user) and the Universities (the

physician producers) is clearly seen. It is because the universities can object to the plan to establish medical schools in nine regional hospitals in spite of the cabinet approved of this plan on 7 June 1994. The universities succeed in objecting to this plan in July 1997, one month later by reason that the MOPH is only the service unit not the training unit. Thus, the MOPH must change the plan to "make coordination with" the Ministry of University Affairs in increasing production new physicians. So, physician supply is limited to the facility of the Universities. From 1995 to 1997 there were only 208 new physicians who graduated from this plan. (Jindawattana, A., Wibulpolprasert, S., Methanavin, S et. al.,1997: 416-429 in Thai Ibid.)

The Eighth National Public Health Development Plan (1997-2001) also shows only a plan to develop the MOPH. It shows that the policy makers of the plan are physicians who are the executives in the MOPH and do not coordinate well with other health sectors. The policy makers do not try to strongly affect the physicians. Although the policy makers mentioned that the cause of the inequitable distribution of physicians is the rapidly expansion of the private hospitals, while the public sector has limited of expansion. This leads to increasing gaps between urban and rural areas. (The Eighth National Public Health Developing Plan, 102-103) Although this plan has emphasized the holistic approach* to medical services (The Eighth National Public Health Developing Plan, 108), the solution is only to urge and support the community hospitals in "Family Practice". This is also the policy that hit micro target in some community hospitals and is not the right method to solve the physician shortage in the community hospitals. This policy is not different from other policies. The MOPH does not try to use any policy that changes the medical system at higher level. These are setting the structure of the demand for medical services in each specialty or setting the types of services, public or private medical services. If the government and the MOPH cannot do this, following policies the governments use to distribute the ideal physician to the rural areas will not succeed. One example is the "Rural Recruitment and

* "Good medical services must be holistic medical care that is to take care of each patient in every aspect as physical, mental and social aspects. This is for the well-being of the patient. (The Eighth National Public Health Developing Plan,108)

Training Project" that failed to attract rural physicians to community hospitals for a long period. Many universities have abandoned these programs.

6.5 Rural Recruitment and Training Project: One Government Program for Physician Production and Distribution to Rural areas.

The Rural Recruitment and Training Project for medical education was initiated by Dr.Sira Bunyarattavej the former deputy president of Mahidol University in the year 1974. The objective of this program is to produce ideal physicians, who have good attitudes toward rural work, have willingness to work in rural areas and want to solve rural health problems without enforcement or any incentive. This program originated from his idea that the causes of physician shortage in rural areas are (1) inadequate physician production and (2) the external brain drain from going abroad. (The Assessment Committee on Rural Recruitment and Training Project for Medical Education: Mahidol University, 1990: 7 Thai) According to this program, students were recruited from rural provinces by mechanisms, which included provincial health administrators and medical school lecturers. After graduation they were sent to the provinces or districts from where they came. By using this program to solve the physician shortage problem in the rural areas, it reflects the unsystematic government mind set in solving problems.

The program ultimately failed:

1. It was a change at the individual level of the physicians who graduate from this program and the government tried to push rural medical services into the hands of newly graduated physicians.

2. The government did not pay attention to this program. The physicians who graduated from this program could not all work in their hometown provinces because the governments did not prepare enough space in those health facilities. These physicians were similar those who take entrance examination to study and chose their workplaces by drawing lots. This is why these physicians still moved from the rural areas.

3. The government did not systematically think to solve the physician shortage problem in the rural areas. Although the physicians who graduated from this program tended to work in rural areas rather than other physicians, the government did not maintain this program*. Medical schools discarded this program after it was finished. Later the MOPH also used the program like this and called it the "Collaborative Project to Increase Production of Rural Doctors" for which the MOPH asked collaboration of the medical schools to produce the physicians in this program. However these two programs are the concepts of individual change not holistic change of the medical system.

We can see that the concepts to solve the problem using this strategy are micro concepts. The policy makers try to accuse the physicians who do not want to work in rural areas and try to change the quality of medical students instead of changing the medical system as a whole. The objectives of this program reflect this idea well.

"There are questions on "how can we produce physicians who have good attention to solve the rural health problem, willingness to improve the health of the rural population which is the major population of the country and want to work for rural areas eagerly without any incentives or enforcement. The universities must consider their products as well as the means of production in selecting methods and their curricula." (The Assessment Committee on Rural Recruitment and Training Project for Medical Education: Mahidol University, 1990: 7-8 in Thai Ibid.)

Further "the MOPH asks for collaboration from Chulalongkorn University in October 1975 regarding Rural Recruitment and Training Project for rural students. Chulalongkorn University accepts this idea and will expand the seat for the rural students from this program. Also the university will support and urge the physicians who graduated from this program to go back and work in their hometowns. However, Chulalongkorn University recommended that the important thing to make these physicians work happily in the rural areas were the courses that let them have chance to contact the

* From the thesis of Ariyakulkanjana P.(1982), the research of Wattansap W. (1987) and Jiraratpohchai K. (1991), the physicians used to live in the rural areas, were educated from high schools in rural provinces and worked in community hospitals more than physicians who lived in Bangkok and the vicinity.

climate of practicing in rural health facilities during learning even it is for a short period." (Medical Education Course, the Rural Recruitment and Training Project: Chulalongkorn University, 1982: 1)

When the ideas of the policy makers directed the physicians individually, solutions stressed the individual instead of the whole medical system as we see in the philosophy of Mahidol University concerning this program.

"One hypothesis of this program is that the right method of selecting medical students is not only the entrance examination, which has been used for a long time. If we used the right method, we may have physicians who have good attitude towards their profession." (The Assessment Committee on Rural Recruitment and Training Project for Medical Education: Mahidol University, 1990: 9 in Thai Ibid.)

The Philosophy of Chulalonkorn University about this program stresses to individual level also:

"To achieve the Primary Health Care–Based System, there ought to be proper manpower especially physicians. These physicians must be trained in community-based education because primary health care (PHC) is based on the community. This means that the medical education must begin with the community but the education in hospitals must sustain it. Hospital education must be combined with the community education. So this program will have both hospital and community education with expectation to produce physicians who intend to be community doctors, who can work well in teams with other paramedics because in the community they must be involved with many persons and organizations." (Piyarat, P. 1982: 10)

The policy makers, both producers and users, have individually changing concepts. In practice, each university, which has the Rural Recruitment and Training Project, selects nearby medical students from different parts of the country as follows:

The Faculty of Medicine at Siriraj Hospital, Mahidol University selected the medical students who lived in these 10 provinces: Nonthaburi, Pathum Thani, Ratchaburi, Nakhon Pathom, Kanchanaburi, Prachuap Khiri Khan, Phetchaburi, Samut Songkhram, Samut Sakhon and Suphan Buri.

The Faculty of Medicine at Ramathibodi Hospital, Mahidol University selected the medical students who lived in these 12 provinces: Saraburi, Lop Buri, Chai Nat, Phra Nakhon Si Ayuthaya, Sing Buri, Ang Thong, Uthai Thani, Nakhon Sawan, Phichit, Phetchabun, Kamphaeng Phet, and Nakhon Ratchasima.

The Faculty of medicine, Chulalongkorn University selected the medical students who lived in these 8 provinces: Chon Buri, Rayong, Chanthaburi, Trat, Nakhon Nayok, Prachin Buri, and Samut Prakran.

The Faculty of Medicine, Khon Kaen University selected the medical students who lived in these 12 northeastern provinces since 1980: Khon Kaen, Udon Thani, Kalasin, Nakhon Phanom, Nong Khai, Maha Sarakham, Loei, Sakon Nakhon, Roi Et, Ubon Ratchathani, Mukdahan, and Yasothon.

The Faculty of Medicine, Chiang Mai University started this program by 1980 and selected the medical students who lived in these 12 north provinces since 1981: Mae Hong Son, Chiang Rai, Phayao, Chiang Mai, Lamphun, Lampang, Phrae, Nan, Tak, Uttaradit, Phitsanulok, and Sukhothai.

The Faculty of Medicine, Prince of Songkhla University selected the medical students from these 14 southern provinces since 1983: Songkhla, Surat Thani, Ranong, Nakhon Si Thammarat, Krabi, Chumphon, Narathiwat, Yala, Phangnga, Pattani, Phatthalung, Satun, Phuket and Trang.

This program covers 68 provinces all over the country. At first this program wanted to send the graduate physicians from this program to the provinces or districts where they came but finally after 1984 the physicians from this program were sent to the rural area by drawing slots like the physicians from entrance examination, even the program of Chulalongkorn University that was slightly different from other universities. The program started selecting the medical students from 1978 to 1986 by sending the fourth to sixth year medical students to practice in Chonburi and Chanthaburi Hospitals of the MOPH before four years of compulsory services. After

1987, the physicians who graduated from this program were distributed by drawing lots as other physicians. The reason for changing criteria for distribution was for more opportunity for the physicians from entrance examination to select their workplaces. (Jindawattana, A.; Wibulpolprasert, S.; Methanavin, S. et. al., 1997: 421 In Thai Ibid.)

The core concept of solving the physician shortage and maldistribution by using only newly graduated physicians persists although the Rural Recruitment and Training Project finished. The MOPH still does not change the idea of using newly graduated physicians to refill the spaces in community hospitals with other strategies. The MOPH tried to establish their own medical schools but the physicians in universities rejected this project. Then the MOPH reused the idea of rural recruitment and training in the name of the "Collaborative Project to Increase Production of Rural Doctors (CPRD)". The concept of using new physicians to practice in community hospitals can be seen when Dr. Vuthikit Thanaphum proposed this project in the conference of MOPH executives on 27 April 1994.

"The number of physicians in the MOPH countrywide now are 7,008 from a total of 15,229, the lost number is as high as 8,290. The MOPH is now facing external brain drain of physicians to the private sector because there have been newly established private hospitals during economic boom and their incentives are higher than public sector by several times. So the shortage of physicians in public sectors is increasingly severe. The MOPH tries to reduce this gap by the Collaborative Project to Reduce Rural Doctors. The idea of this project is to produce a new generation of physicians who have proper skills, knowledge, attitudes, and enthusiasm for rural health problems and can do well in rural work. This is cooperative venture among the MOPH and the Faculties of Medicine of several universities to establish medical colleges in appropriate regional hospitals for clinical teaching to the fourth to sixth medical students, meanwhile the universities take responsibility in pre-clinical teaching." (Collecting from Conference Room, 1994: 73)

The other executives in the MOPH conference* did not think of strategies apart from compulsory method and increasing physician production. We can see from their comments in the following conference.

* The executives in the MOPH conference comprise of the Minister Of the MOPH and advisors, deputy ministers and advisor, the permanent secretary, deputy permanent secretaies, director generals of the departments, the directors of bureaus , the director of Government Pharmaceutical Organization, the

"(1)There ought to be targets increasing physician production yearly about 400 per year and established Medical Colleges in the seven regional hospitals especially in the northeastern region and the lower southern region. (2) The medical students in this program must sign contracts with the MOPH and need no allocation with the total quota of other physicians. (3) The importance factor to solve the maldistribution of physicians is to set policy and regulations which select the medical students from rural provinces. This is an important factor that makes physicians sustain work and development in rural health affairs in rural areas."(Collecting from Conference Room, 1994: 74)

When the concepts of policy makers do not change, the core objectives of the CPRD are increasing physician production and enticing medical students to change their attitudes. These twoideas change at the individual level. We can explore the record of this project.

"The target is increasing the production of physicians up to 3,000 physicians in 16 years (1995-2010)." (The CPRD 1995-2014: MOPH, 1998: 4)

"The idea and the direction to solve the problem is to allow medical students direct experience in the climate of rural work, life, environment and the true problems of rural areas. It is based on the ideas that physicians who graduated from the Rural Recruitment and Training Project have a higher rate of rural working than the physicians from the usual entrance examination because the homes of usual most applicants is Bangkok or the vicinity. (The CPRD 1995-2014: MOPH, 1998: 2)

Using the following data, the researcher will show that the above concepts and strategies that the MOPH uses are not the best. The policy makers favor this strategy, reuse it after reform, and have a tendency to use it only. New concepts and strategies must be initiated to solve the physician shortage problem in the future .

When collected data of physicians who graduated from the Rural Recruitment and Training Project of Mahidol University from 1981 to 1990, ten batches are compared with physicians who graduated from the usual program at the same time, these physicians still work in the rural more than usual physicians do, but most have

directors of Praborommarajchamnok Institue, the Chief of the Office of Inspector and Supervisors and

moved to practice as specialists in larger hospitals. The only factors that maintain these physicians working in community hospitals are (1) being a director of the community hospital or (2) practicing in more than ten- bed community hospitals that have more facilities. This is not different from the physicians from the normal entrance examination. (3) Female physicians work in community hospital less than male physicians do.

This strategy is not a perfect one to solve the physician shortage problem in community hospitals, it is only an auxiliary strategy. The following data will show that the government policy is not stable but influenced by medical professions. The aim to distribute physicians from this project changes according to the physicians' needs. The government must seek new strategies to keep physicians working in community hospitals honorably

The samples of this data are first ten batches of the physicians who graduated from the Rural Recruitment and Training Project of Mahidol University. The first batch graduated by the year 1981 and the tenth batch graduated by the year 1990. The samples are random totaling 385 from 426 physicians. The control samples of this data are the physicians who graduated from the usual entrance examination of Mahidol University and studied during the same years as the samples. The control samples are 472 from 2,076 physicians. The workplaces of these physicians are collected from the data of the year 1996 of the Thai Medical Councils. The findings are as follow:

1. From this program, 26.7 percent of physicians remain at community hospital (103 of 386 physicians). This is higher than the physicians from the usual entrance examination where only 8.3 percent (38 of 472 physicians) remain at community hospital only 8.3 per cent (38 from 472 physicians). This is significantly different. ($X^2 = 82.87$, P= .000) (Table 6.3 in appendix)

the secretary general of Food and Drug Administration. Most of these executives are physicians.

2. Physicians from each program remain working at community hospitals less than other public hospitals to a significant degree. (The rural recruitment physiciansX^2 = 97.79, p= .000, the usual physicians X^2 = 317.576, p = .000, Table 6.4 in appendix)

3 The rates of physicians from each program who are the and are not the directors of the community hospitals are not different of the rural recruitment physicians, 48.6 percent are the directors and 51.4 percent are not the directors. Meanwhile, 50 percent of the physician from the usual program are directors and 50 percent are not. (Table 6.5) Physicians from both programs, who are not directors tend to practice in large community hospitals rather than the small ones. (Table 6.6 in appendix)

4. Physicians from both programs also have a tendency to practice in large hospitals. (1) Those physicians being the directors or not who still work in community hospitals are in more than 30 bed community hospitals. (Table 6.7 in appendix) (2) The physicians from the Rural Recruitment Project who moved to practice in provincial or regional hospitals totaled 97 out of 368 or 25.1 percent. These physicians are in the same provinces as they came from about 15.5 percent (60 of368 physicians) and are in other provinces about 9.5 percent (37 of 368 physicians), (Table 6.8 in appendix). (3) The physicians from entrance examination who moved to practice in provincial or regional hospitals numbered 218 out of 472 or 46.2 percent, (Table 6.8 in appendix). (4) Physicians from the Rural Recruitment Project who moved to practice in private sectors numbered about 45.3 percent (175 of 386 physicians) meanwhile the physicians from entrance examination moved to practice in private sector numbered44.5 percent (210 of 472 physicians), (Table 6.9 in appendix).

5. Of the physicians in either rural recruitment or usual program, male physicians still work in community hospitals more than female physicians to a significant level. (1) Male physicians from the rural recruitment project who still work in community hospitals numbered 20.5 percent while female physicians who still work in community hospitals numbered 6.2 percent. (F = 5.838, P = 0.016)(Table 6.10) (2) Male physicians from entrance examination who still work in community hospitals

number 8.1 percent while female physicians still working in community hospitals, 0 percent (Table 6.10 in appendix)

6.Of the physicians from the Rural Recruitment Project, female physicians who moved to other provinces number 18.5 percent while male physiciansnumbered 12.0 percent (Table 6.11)

7. The physicians who are former graduates are the directors of community hospitals number more than later graduates by a difference. (F =4.33, p=0.04) (Table 6.12 in appendix)

8. The physicians, either graduates from the Faculty of Medicine, Ramathibodi Hospital or Siriraj Hospital: Mahidol University, also have no different workplace from community hospitals to hospitals of medical schools. (X^2 = .066, P = .797, $\varnothing$ =0.07) (Table 6.13 in appendix)

9.The workplace of physicians who are in different batches are not different either physicians from the Rural recruitment and Training Program (F = 1.267, p = .253) or the usual entrance examination (F = 1.335, p = 0.216). (Table 6.14 in appendix)

Conclusion

From the above data, we can see that the state or governments do not see that public health policy is an important policy and they do not pay attention to public health policy and let it be the responsibility of the bureaucratic government officers who are mostly physicians in the MOPH. These are (1) the MOPH is classified as the second class ministry that large political parties do not want to manage in forming the cabinet. Their only interest is to use the public health policy to seek their right in governing from the population. (2) The public health policy is in the hand of physicians who are MOPH executives who lack interest in the government. Even though there are good policies to equitably allocate health resources to the rural areas,

when the policy deals with the physicians, it is not used practically. The policy makers try to avoid the affects on the usual medical system for the total physicians. The policy is only to distribute the newly graduated physicians to work in community hospitals, not the experienced ones. (3) There is no coordination between the different health organizations as medical schools, which are the producers of physicians and the MOPH and other public health facilities of other ministries, which are the physician users. So the National Public Health Policies are only the MOPH Development Policies. (4) Because of a lack of coordination, the public health policies have no unity. The demands of physicians by specialty and by type of service (pure public or pure private or mixed type) are not well defined and this leads to unbalance growth of private sectors and specialists that cause physician shortages in rural areas, especially in community hospitals. (5) Fearing the effects to usual medical systems, the policy makers try to produce new physicians or manage with the quality of new physicians. They avoid any policy that involves the old ones such as the Rural Recruitment and Training Project and the CPRD. So if there are not any new strategies used, the lack of physicians in the community hospitals will persist and the new production cannot refill the spaces. This is called " The bottle with a hole at the bottom phenomenon". (Jindawatthana, J. 1999: lecture in the Yearly Conference of the Rural Doctor Society, September: 1999)

So, to achieve the goal of solving the physician shortage problem in the community hospitals, the government must pay attention to manage the medical system as a whole and define the exact needs of the nation about medical system. The government must direct the medical system to the goals they want and must not let the medical system grow unsystematically by itself.

CHAPTER VII

MINISTRY OF PUBLIC HEALTH AND PHYSICIAN SHORTAGE IN COMMUNITY HOSPITAL

As stated in chapter six, those who did not pay attention to public health policy, mostly policy makers, administrators in public health policy and problem solvers in physician shortage were bureaucrats in the MOPH. Most of these bureaucrats were medical professionals. Also, the original idea of establishing the MOPH was not the government desire to provide public health services for the people but it was for national security and privilege. The past governments did not reorganize public health services, opting to use only internal enforcement and external enforcement by the invasion of external capitalism, especially western neo-colonialism. This study reviews and classifies the history of Thai public health and medical services in two categories. The first is the period before establishing the MOPH. The second is the period after MOPH establishment in 1942, which was in the second World War period, that forced that government to establish the MOPH to improve people health for the national security in order to be able to combat the invaders.

In the reign of King Rama V, he had to hastily reform his cabinet and administration. He improved his cabinet and bureaucrats by sending them to study abroad by scholarship in order to civilize Siam (the former name of Thailand). The reason was to withstand the invasion of Great Britain and France colonization because in that period Siam was forced to bestow some parts of the country to them. Great Britain recieved (1) Kho Mak in 1786 (2) Marid, Thavai, Tanaosi in 1793 (3) SaenWi, Mueng Phol, Chiang Tung in 1825 (4) Sib Song Panna in 1854 and France recieved (1) Khwaen Khamen in 1867 (2) Sib Song Ju Thai in 1888. These forced the King Rama V to reform the government service system both fighting forces and civil servants to defend the country from invaders. Medical services were one government

affair that were used to make healthier civilians that could combat the enemy (Pratchayapreit, T., 1993: 23-25 Thai Ibid.).

Gathering health affairs from several ministries to set up the MOPH by the year 1942 was the idea of the government to resist the invasion of Japanese capitalism during the Second World War. During the war, Thailand faced the problem of a severe shortage of medicine and the administration of health affairs because it was scattered among the authority of several ministries. So it had no unity in administration. The cabinet of Field Marshall P. Pibulsongkhram collected them together and set up the MOPH. The idea of setting up the MOPH can be seen from the speech of Field Marshall P. Pibulsongkhram in the opening ceremony of the MOPH.

"Now, the medicine in Thailand is very short due to the war. We can not import the medicine as easily as in the past, although in the past we can produce some medicines in our country. We willingly import them because it is easy to do that. We cannot depend on any one now, we must produce medicines by ourselves without any assistance from abroad" (Pibulsongkhram P., in 15 Years Memorandum of the MOPH, 1957: 62 Thai)

The Thai government needed to reform itself from the necessity to resist invasion. By the reasons of civilizing the country, the government had to reform itself in capitalistic way. This is reformation of Thai bureaucracy into professionalism to increase facility in the utilization of resources, increasing the facility to control the people, increasing facility to allocate and serve the population. Finally Thai nation used the three ideologies of the nation, the religion and the king. Since then Thai bureaucracy developed into professionalism and Thai bureaucratic orgainzations developed to be "State Bureaucracy". The state bureaucracy is the state that the bureaucrats are the leaders in state administration. There is daytime work as in the west; there are societies of each profession. There are working plans, educational plans, and there are laws and regulations for supporting the activities of the professions as in western countries. (Pratchayapreit T., 1993: 35-37 Thai Ibid.)

Before the establishment of the MOPH, medical care services were developed into professionals like others in Thai bureaucracy. The early public health policy of the MOPH faced many problems as follows.

1. There was domination of some medical profession over other professions during the development of the MOPH. There were two diversities in health planning. The first is the medical professions who emphasize on medical treatment by western technology. The second is the medical professions who emphasized on health promotion and disease prevention. There are many debates among these medical professions but the first had authority over the second. These are the initiation of the policy and structure of the MOPH that was bias toward medical treatment and lead to the ineffective strategies for solving the physician shortage problem in community hospitals.

2. The MOPH developed itself mainly in medical treatment, so the strategies used to solve the problem are limited in the boundary of professionalism that is the result of capitalism. The strategies used to solve the problem are only increasing physicians and increasing incentives for physicians in order to compete with the private sector. The structures of community hospitals also are referred to large hospitals. This is unsuitable for the work of physicians in community hospitals that need GPs not specialists. When the MOPH defines the positions of physicians in community hospital, it refers to medical treatment in large hospital. This leads to less opportunity in advancement of the physicians in community hospitals whose major roles are health promotion and prevention. Most physicians do not want to work in the community for these reasons. Besides the reasons mentioned above, the MOPH avoids any policy that disturbs the structure of physicians in large hospitals that are their base of power. The distinctive sample is that the MOPH never has any policy to define the proportion of each specialty for continuous medical education and for the proper medical treatment in the Thai medical system.

3. The discrimination of the policy makers in the center levels affects the administration in the local level. This leads to disharmony of local health authority, and leads to disharmony for solving the physician shortage in community hospitals.

The above factors lead to the ideas of solving the physician shortage problem of the MOPH. When the medical professionalism dominates the executive ideas, the concepts to solve the problem are limited in the boundary of medical profession and it does not change for along time.

7.1 Development of the Ministry of Public Health: Development to Disequilibrium

An ideal development of public health affairs comprises four categories; health promotion, disease prevention, treatment and rehabilitation. Thai public health affairs mainly direct medical treatment under the influence of medical professionals favoring western technology in medical education and treatment. Most physicians hope to be the most experienced specialists following the capitalistic pattern of medical care. However, this is not an isolated phenomenon but one-step planning with different ideas. The MOPH has passed several steps in developing to what it is now. Finally, the medical professionals have more chance to authorize and make policy for the MOPH. These now affect the development and the policy of the MOPH.

7.1.1 Public Health Affairs before the Establishment of the MOPH

As we know from chapter two, the traditional state pays more attention to the security affairs than public development. The public health affairs also are public development affairs that the new state has received as its obligation. In Thailand it developed since 1932, when the revolution transferred the political power from the king. Most of public health affairs in the past were more confined to the national security, disease control, disease prevention, and sanitation than treatment. So in the early period the public health affairs were under the Ministry of Interior.

From the early Rattakosintara period to 1886, the government of Thailand (Siam) had no public health policy. When there was an epidemic of cholera; the government set up temporary hospitals but these were closed when the epidemic was resolved. By 1886 in the reign of King Rama V, there was a countrywide epidemic of cholera. This epidemic brought grief to the nation because the heir to the throne died from the disease. So the king had to set up a modern hospital for his people. He established Siriraj Hospital since 1888 as the first hospital in Thailand in control of the Department of Nursing (Krom Phayabal), the origin of the MOPH. First, the king was the direct superintendent of this department. The health affairs during that period were confined to the national security because its aim was to increase the population. It was transferred to Prince Damrongrachanubharb, the younger brother of the king, whom the king trusted. Thus the Department of Nursing was under control of Prince Damrong, the minister of Public Instruction (the Ministry of Education now) by the year 1905. When Prince Damrong was the Minister of Interior, the Department of Nursing also was transfered to be under control of Department of Joblessness (Krom Pa Lamphang or Department of Local Administration now), Ministry of Interior by the year 1908. The major roles of the Department of Nursing were prevention rather than treatment such as inoculation and medical teams to combat epidemic diseases.

By the year 1912, the Department of Nursing was separated from the Department of Joblessness. It was set up as one department of the Ministry of Interior. The major roles of the Department of Nursing were prevention of the epidemic diseases and sanitation. Treatment was not an important role of this department because the government then saw that people must take care of themselves. Another reason was that medical treatment used high amounts of funding and needed many health personnel. The evidence shows that the government saw health affairs in the control of Ministry of Interior to keep peaceful inside the country. The government promulgated laws and assigned the ruling officers to take care of health through disease prevention and disease reporting. To assign the people in the community to share the treatment by themselves, the government appointed self-styled doctors to be local doctors (paet pracham tambol) with authority to cure nearby sick persons, to

inoculate, and improve the sanitation of their locality. These roles were abandoned and are limited after the development of western style medical treatment that dominated the medical professions, although it is the basic idea of primary health care.

The Department of Nursing was renamed the Department of Public Health. The obligations about sanitation, disease prevention, and public health affairs of the Ministry of the Municipality (Krasuang Nakhonban) and the Ministry of Interior were transferred to the hands of this department. This was for the unity and conciseness of health affairs management, and to reduce costs of administration due to scattered resources during that period of the economic crisis from the First World War. However, the government health policies were still preventive policy not treatment.

Due to the economic crisis from the war, American capitalism penetrated into Thai society in the form of philanthropy by the Rockefeller Foundation. The foundation supported Thai government in several aspects. The change of Thai medical care to western pattern also was the result of the foundation's support. The foundation also gave scholarships to Thai students to study in the USA in medical care and many specialties. The aim of these supports was for helping the missionaries to propagate their doctrines. The missionaries had persuaded the foundation to enter Thailand in the form of support to the government to eradicate hookworm as Unhanandh M. (1962) had recorded.

"The missionaries had noted that the Rockefeller Foundation came to help the Thai government eradicate hookworm upon receiving their request. Because it was difficult for them to wander to propagate their doctrines."(Unhanandh M., 1962: 572)

One of the turning points of Thai National Health Policy was when the People's Party revolted against the former government. Most members of the People's Party graduated from abroad, and preferred with western life style. When they had political power they changed the public health policy from prevention and sanitation improvement to mainly treatment. To make people support them; they used the health policy to calm the people who rejected their political power. They created the policy to

establish hospitals in all rural provinces. This is the first step that the government took in medical treatment for the people, who could self-reliance, to be under the government obligation to do for the people. Since then, medical professions developed, Soon medical affairs were confined only to the medical professions and the people lost their capacity to take care of their own health.

7.1.2 Public Health Affairs after Establishment of the MOPH

The government after the 1932 revolution needed public health policy to support their power, so they developed western style medical system and medical education. Although they needed this policy they indeed did not pay attention it because the government was not stable. Medical development was left to medical professions. Even after the government established the MOPH by the year 1942, the MOPH was the work of physicians developing the Thai medical system with a clinical rather than public health mentality. These persistently affect the distribution of physicians to rural areas.

The Government of Field Marshall P. Pibulsongkhram established the MOPH 10 March 1942; at first its name was "the Ministry of Public Health Affairs" (Krasuang Karn Satharanasuk) and later "the Ministry of Public Health" by the year 1952. The MOPH was established under the Thai Nationalism Policy, the government wanted to use public health affairs to increase the Thai labor population for national products and for the security of the nation. These can be seen in the speech of Field Marshall P. Pibulsongkhram at the opening ceremony of the MOPH by 24 June 1942.

"Now I'm so glad to see that the difficult collection of all medical affairs, that is necessary, has been attained. The medical and public health affairs are one, that will solidify our nation. It is very important for the defense mechanism, foreign affairs, economic affairs, financial affairs, etc. I do not say this because I'm now in the MOPH but it is really useful for the country. The advancement of medical and public health affairs will strengthen Thai manpower due to increasing both quality and quantity of the people. The people will be healthy and have long lives. Increasing a healthy population will lead our nation to have enough power to defeat any hardship." (Pibulsongkhram P. in 15 years Memorandum of the MOPH, 1957:62 Thai)

Due to olitical ideas, there are many objections before setting up the MOPH. Most politicians claimed that setting up the MOPH is not necessary. In the early phase of the MOPH, there were no permanent ministers but ministers of other ministries coupled with the MOPH. The evidence, that politicians were not interested in the MOPH, can be seen until now. Phraya Sunthornpipit recorded this in the 15 year memorandum of the MOPH.

"The politics do not keep in mind that the illness of the human being is important. They don't understand that the very basic causes to strengthen the nation are the health of the people. So they act as if they are not sure or do not see that the MOPH is useful. Thus the MOPH is unstable, it looks as if there is obstructed labor and a critical condition baby. However the MOPH can survive because of the war that attracts their attention to other matters. ..... Many times the Ministers of the MOPH are appointed with busy ministers that cannot manage the MOPH. It looks no minister. Someone came to the MOPH only once or twice a month and in the worst scenario someone never came to the MOPH while on duty." (Phraya Sunthornpipit, 1957: 461-462)

The establishment of the MOPH led to the separation of medical treatment and public health affairs. It also led to the domination of the medical profession in the MOPH because politicians were not interested this ministry. The medical treatment affairs were drawn into control of a new department called "Department of Medical Affairs" and the public health affairs were in control of the "Department of Public Health" that was renamed as "Department of Health" by the year 1952.

Separation between medical treatment and public health affairs led to domination of medical affairs over public health affairs during the early phase. It was because (1) the medical treatment had rapid foreseen affects while preventive is indirectly visible. (2) There was a close personal relationship between the director general or the Department of Medical Affairs and the Prime Minister (Field Marshall Plaek Pibulsongkhram) because he was the personal physician of the Prime Minister. Thus the Department of Medical Affairs then was the department that consumed most funding of the MOPH. We can see that, in the early phase, the western style of medical treatment in Thailand had a close relationship with the ruling class and it was

increasingly well-known and supported. Dr. Sem Pringpuangkaew, the former minister of the MOPH who is not a politician, had said that.

"Field Marshall P. Ppibulsongkhram has known another directors general of the MOPH as.... But these ones do not deal with treatment affairs; they meet each other only in the conferences. Unlike those who deal with medical treatment, they meet Field Marshall P. Pibulsongkhram twice a day, so they more closely relate than the others do. Luang Nit (Col. Dr. Nit Vejchavisit), who is the director of the Central Hospital and the director general of the Department of Medical Affairs, is his family doctor. He saved his life when he was shot. Thus Field Marshall P.Pibulsongkhram believe in him very much. The policy to set up hospitals in every rural province is the idea of Luang Nit. (Pringpuangkaew S. (interview) in Kiat prawat paet thai phak wai hai khon run lang, 1994: 102 Thai)

The MOPH's affairs are developed mainly in the medical treatment domain. The medical treatment sector grew rapidly until it dominated the preventive and sanitation improvement sector and it is the model for later physicians who only pay attention to medical services. Dr. Sem stated that:

"When the Department of Public Health was in the Ministry of Interior, prevention and public health were important roles. They can do well. After the establishment of the MOPH the medical services took over the prevention and health promotion although prevention is better than cure as a proverb says. The prevention is cheaper than the cure, alternately the cure is close to the human relationship. When we can cure their parents, the relation between the physicians and the patients is better. Unlike the sanitation improvement, when we build a toilet or a tap water tank, they also thank us but it is not clearly seen as the physicians who cure their sons. Cure has an important role because the patients feel under the physician's obligation. We can see that the traditional healers do not have any role in prevention, they only cure the patient but the society praises them very much. The sample is Mr. Inn, whose nickname is "Mr. Inn, the angle". So we can see that medical cure has greater role than prevention. Thus the officers who conduct prevention affairs are touchy because they are ignored. (Pringpuangkaew S. (interview) in Kiat prawat paet thai phak wai hai khon run lang , 1994: 102-103 Thai Ibid.)

When the structure of the MOPH is divided into two lines, the structure of the rural health facility is also divided. These are the lines of medical services and prevention and health promotion. Medical services are the jobs of provincial hospitals under control of the Department of Medical Services. Prevention and health

promotion, the job of the provincial Chief Medical Officers and the District Chief Health Officers are under control of the Department of Health. (Figure 7.1 in appendix) Due to the separation of provincial work, they cannot coordinate with each other, cannot relieve each other's workloads and work has no continuity. Besides the separation of work, prevention and health promotion is hard work and is not easy to persuade people to do, as we want. Thus the physicians do not want to work in prevention and health promotion line but like to be in the medical service line in towns or abroad. These lead to a shortage of physicians in rural areas (50 years memorandum of the MOPH, 1992: 57-59 in Thai Ibid)

Furthermore, Dr. Sem had said that the problems of health personnel administration are from the reformation of the Office of the Prime Minister in the year 1959. The alienation of the physician users (the MOPH) and the physician producers (the medical schools) occurred because the Universitiy of Medical Sciences Department is separated to be under the control of the Office of the Prime Minister. This leads to the problem up to now. (Pringpuangkaew S., 1997: 140 in the Memorandum of the cremation under royal patronage of Prof. Udom Posakrissana) Thereafter, the MOPH faced difficulty in coordination between these two lines. Every time the MOPH reformed itself, the evidence of disagreement between the two lines were clearly seen.

7.1.3 Reformation of the MOPH: the Opening of Medical Professional Domination

There were three great reformations of the MOPH; each reformation gave the medical profession increasing power and authority in the MOPH. These are (1) Reformation by the 216th and 217th Act of the coup of 27 September 1972 (2) the reformation by the Act proposed by the House of Legislation on 8 August 1974 (3) the reformation by the 7th Act for Reformation of Thai bureaucracy 1992. The most important reformations of the MOPH, for the medical profession, are the first and the second, so this chapter will not discuss the third reformation at 1992.

The administrative counselors of the Prime Minister directed the reformation of the MOPH in the year 1972. At first they had the idea of combination of all aspects of health care, such as health promotion, disease prevention, rehabilitation, surveillance and treatment in public health practice. However, the MOPH faced the problem of poor coordination in practice because the jobs were divided into the responsibility of each department. So each department of the MOPH tried to compete with each other to draw health personnel and budget into their organizations. So the Department of Medical Services could not easily work with the Department of Health. Soon the administrative counselors of the Prime Minister had proposed to combine these two departments. The MOPH then combined these two departments and defined it as "the Department of Medical Service and Health"." Many conflicts occurred in several levels during the attempt to combine these departments. These were (1) the conflicts that physicians in medical schools thought that they were more intelligent than physicians in the MOPH. (2) The conflict between medical and paramedical professions and (3) public health service physicians in the Department of Health and the treatment service physicians in the Department of Medical Services.

That there were conflicts in different levels because there were four MOPH structures proposed and rejected. Finally they used the fifth compromise pattern. The first pattern was not different from the old one. There were combinations of rural health services and rural medical services in provincial level under the command of Chief Medical Officers in the second pattern. This also affected the executive in the center level of the MOPH also because neither the director general of the department of Medical Services nor the director general of the department of Health would be given up. The third and the fourth patterns will place all hospitals under command of the Office of Permanent Secretary of the MOPH. The fifth pattern that is the most compromised pattern. Although the Department of Medical services and the Department of Health are combined, large rural hospitals are not under the command of the Chief Medical Officer. (Figure 7.2-7.6 in appendix) We can classify these conflicts into these categories.

1.Discrimination by physicians who are high specialists they were more intelligent than those in the MOPH. Pravet Wasee (6 February 1991) mentioned this, when he was a member of the administrative counselors of the Prime Minister 1972, to the editor of the book "Kiat prawat paet Thai phak wai hai khon run lang (in Thai).

"I was the only physician from the university who was interest in the job of the MOPH then. I was concerned with the MOPH as long as other physicians in the university reminded me that "Ah! Pravet: you can't change an ass to be the lion, it is impossible, that means that the physicians in the MOPH are foolish while those in the university are intellectual ". I don't agree with this wrong idea because there are many intelligentsias.... At first I don't know about the public health as many specialists, I must learn this from the physicians of the MOPH when I go to explore community problems. They are experts in their job like us who are expert in medical school knowledge." Wasee P., (interview) in Kiat prawat paet Thai phak wai hai khon run lang, 1994: 170 Thai Ibid.)

Different thoughts between physicians in the MOPH and the universities led to forming the MOPH structures mainly inclined to treatment areas. This affects the physician distribution to rural areas now.

2.The debate between the physicians and other professions: the reformation of the MOPH by the year 1972 was a debate to appoint anyone who has a master degree of public health to be the Chief Provincial Officer. This meant that this position would not be confined to only the physicians. There was much protest from rural physicians from the Department of Medical Services. The newsletters and other media spread the protest. They also complained with the coup as well as frightened the public that they all would resign from their work. (Suksamitti Y., 1987: 45 Thai)

3. Disagreement between the physicians in treatment and preventive lines: There was an attempt to combine medical services with public health services. This attempt led to the discrimination between physicians in the Department of Health and physicians in the Department of Medical Services. This was a quarrelsome matter, because in the second and the third pattern of reformation, the physicians in treatment line must be under the command of the Chief Medical officers that were physicians in the public health line. They did not want to do so, but finally the government ordered

the MOPH to do so. There was the Department of Medical Services and Public Health instead of the old two departments. However the combination was only in the MOPH but the rural health authority the provincial hospital and the Medical Health Office were also independent. (Suksamit Y., 1987: 45 Ibid; Wasee P. (interview), in Kiat prawat paet Thai phak wai hai khon run lang, 1994: 170,290) [The discrimination between the treatment line and the public health line still remain. It can be seen in the three years personnel planning of the MOPH by the year 1995. The committee had set the position of the director of community hospitals to be the 9th Personnel classification (P.C.) but the permanent secretary of the MOPH then, who was from the treatment line, did not agree and kept this matter silent. By the year 2000 it is still unfinished. (The researcher)]

Two years after this reformation, the Department of Medical Services and Public Health grew rapidly. It consumed about 92.5 percent of the MOPH budget and had 94.69 percent of the total personnel in the MOPH. (Pringpuangkaew S., 1997: 142 in the Memorandum of the cremation under royal patronage of Prof. Udom Posakrissana Ibid) However, the rural health facilities faced difficulty to work together because the rural health facilities work independently. When Dr. Udom Posakrissana and Dr.Sem Pringpuangkaew were the Minister and the Deputy Minister of the MOPH respectively, in the year 1974, they tried to reform rural health work to have unity of command. They thought that both treatment and prevention must have the same center of command at the provincial level but the rural physicians in treatment line strongly rejected this idea. Dr.Sem had stated that "The Chief Medical Officer had no power and authority to command provincial hospital at all. The provincial hospitals were directly under the Office of Permanent Secretary of the MOPH. (Pringpuangkaew S., 1997:171) This attempt also shows us the debate between physicians in both lines. During the reformation of the MOPH, the government had reformed the cabinet, there were many efforts from the treatment line to block Dr. Sem as the second times Deputy Minister of the MOPH. Furthermore, there were mobs of directors of more than 80 provincial hospitals with their gowns over their shoulders to protest the Minister of the MOPH, and threaten the public to resign. Meanwhile, in the public

health line, there was a mob of more than 600 nurses and midwives to back up the Minister in reforming the rural health facilities. (Setthachan P., (interview) in Kiat prawat paet Thai phak wai hai khon run lang, 1994: 180-181 Thai)

Although the combination of rural health facilities were under the Chief Medical Officer by this reformation, the Chief Medical Officer had no real power and authority to order the provincial hospitals up to now. This leads to the inability to solve the physician shortage in the community hospitals because most physicians still do not want to practice in public health line in community hospitals.

We can say the most important persons in the progression of the MOPH from the past were medical professions in treatment line. By a close relationship with the ruling class and capitalists, the medical profession adapted themselves to be over another profession in the MOPH over the physicians in preventive and promotive lines. These factors affect the structure of the MOPH that is inclined to western style of treatment, specialists, competition high technological equipment and high incomes.

7.2 Organization of the Medical Profession in the MOPH and Physician Shortage in Community Hospitals

The main factor, which influences policy making in the MOPH, is the executives who are mostly physicians. Thus, most health policies are according to their needs and are limited only to the ideas of medical professionalism. The physician shortage problem occurs as other health policies. Furthermore, policy making is centralized only in the executives of the MOPH, the stakeholders of the rural authorities do not share their ideas. To support this idea, when we explore the data of the executives in the MOPH from the past we will see that almost all of the executives are physicians. These executives are the Permanent Secretary, Deputy Permanent Secretaries, Assistant Permanent Secretaries, Chief Medical Officers, Senior Experts, Extraordinary Experts, Inspector-Generals, Director-General and Deputy Director of each Department, Directors and Deputy Director of each Division, secretary-general

and Deputy secretaries-general of FDA, etc. (Table 7.1,Table 7.2 in appendix) These executives are the policy makers of the MOPH in each conference of the MOPH.

When the physicians must solve the problems that involve the physicians together, the ideas and methods used are not the ones that involved most physicians. They try to select the method that affects the least power ones, the newly graduated physicians. These ideas and methods are.

7.2.1 The idea that working in community hospital is the responsibility of newly graduate physicians, so they fill vacuated positions with new graduates by increasing the production of physicians.

7.2.2 The idea to pay incentives to physicians in community hospitals which benefits the physicians in the towns.

7.2.3 Improper structures of the community hospital, that physicians in community hospital cannot progress in their line as GPs, because of specialists line.

During 1993-1999, there is severe shortage of physicians in community hospitals from external brain drain due to the economic boom but the executives in the conference have no extraordinary ideas to solve the problem. They confine their ideas only the traditional method of problem solving. We can predict that physician shortage in community hospital will remain for a long time because the executives cannot think out of the old ones. These ideas are.

7.2.1 The Idea of Using Only New Physician in Community Hospitals and Idea of Increasing Physician Supply to Replace the Lost Ones.

We can divide the ideas of using new physicians to work in community hospitals of the executives into two categories as (A) increasing new domestic graduated physicians to refill the space in community hospitals, (B) importation of

abroad graduated physicians and send to community hospitals. These ideas can be seen from the records of different sources.

A. The idea of using only new physician in community hospitals

There is a comment by the committee on budgetary fiscal year 2000 of the House of representative against the evidence that there are only new physicians working in community hospital. Meanwhile there are not any experiences. (Summary from conference report of the 4th regional cooperative health committee, 4th times, Nakhon Pathom Chief Medical Office 24 August 1999) The comment of the committee is one of the evidence of this idea. When we explore the idea of the executive in the MOPH during 1993-1997, we can see that their ideas do not change anymore. These are as time series.

The idea of the 7th task force on the health personnel production and development, proposed to the MOPH conference by 1-2 October 1993, are:

"1. MOPH must speed up the health personnel production and improve their quality. The need of health personnel must be long timed planed and looked as a whole country. The quota of the scholars must be improved both selecting methods and allocating methods. MOPH must speed up the production of the health personnel in urgently needed specialties" (From the conference room, 1993: 17-18 in Thai)

Another idea of this task force is also:

"3. (a) Emphasizing on health personnel distribution to the rural areas and increasing incentive are need for improving willingness of to whom who work in rural areas. (b) Speeding up the production of health personnel as physician, nurse, dentist and pharmacists and allot to the MOPH more than usual to solve the shortage of these professions in the rural areas. (3) Using the monetary strategy to stop external brain drain from the MOPH as increasing allowance for non-official time working from $10 to $20 and the allowance for the physicians who do not work in private sectors $250 monthly. There is also paying allowance for some specialties $85* per month." (From the conference room, 1993: 18 in Thai Ibid.)

* The exchange rate is 1 US$= 40 Bahts

By the year 1994, there was debate from the physicians from provincial, regional hospitals and Thai medical Council to send the first year graduated physicians to work in provincial or regional hospital instead of directly sending to community hospitals. This is like the internist training in the hospitals of medical schools. It worsened the physician shortage problem in community hospitals because there are inadequate physicians to replace the old ones who are removing from community hospitals. The MOPH had no extraordinary policies to solve this problem. There was no attempt to push the physicians in provincial or regional hospital to take responsibility to community hospital even for a moment. The MOPH policy was only to rotate the new graduated physicians to practice in community hospital periodically, as Hatthabamroe, C. had said in the monthly conference of the MOPH by 2 December 1993.

"1. If the MOPH does as Thai Medical Council has proposed, next year (1994) the first year compulsory physicians must work in provincial or regional hospital for a year, it is very hard to manage the physician shortage in community hospitals. There may be severe physician shortage in community hospitals. So the MOPH will use this strategies. 1.1) Next year (1994), the MOPH will rotate the first year compulsory physicians in the provincial or regional hospital, that was approved to be the training institutes, in four main specialties and general practices. If the shortage is more severe they may train in at least two specialties for six month in alternate with working in community hospital." (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 110 in Thai)

Furthermore other opinions of this conference also show that the executives in the MOPH do not think that working in community hospitals need the experiences.

"1.2 from the year 1995 and further, the MOPH will fully used this program. All first year compulsory physicians must follow through Thai Medical Council' s resolution. Everyone must train in internal medicine, surgery, orthopedics, OB-GYN, pediatrics, general practices as well as community medicine for one year as Thai Medical Council has designed and in the hospitals that are approved. They must finish they training program before working in community hospitals." (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 110 in Thai Ibid)

There are not any auxiliary strategies to support these physicians in community hospitals in this conference.

"3. To allocate the physicians by the year 1994, each province must collect total quota of physicians in provincial level and reallocate them to replace the lost number and according to need of each hospital. However these physicians must be trained as the program in No.3 (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 110 in Thai Ibid)

We can say that the executives in the MOPH do not have even a little bit of though to send the experience physicians to work in community hospital although in the time of severe physician shortage. The method used is directed only to the new graduated physicians not the old ones. By the year 1993, shortage of physician became increasing in the severity; some 10-bed community hospitals in the farthest border of the 5 Southern region of Thailand had no physicians. The ideas of the policy makers of the MOPH do not try to use the experience physicians to work in community hospital but they accuse the new one who do not go to those hospitals. This can be seen in the report of the director of Department of Health Policy and Planning of the MOPH by 20 July 1994.

" 1. Health Personnel in some specialty urgently needed had improper distribution. Some of 10 bed community hospitals in the Southern provinces have no doctors. (Rob Wang Dheves: from the MOPH's monthly conference, 1994: 63 in Thai)

The MOPH concerned with this problem by appointing a task force for solving it. However the strategy, they proposed, was to manage with the new graduated physician, and the physicians in other community hospitals meanwhile total physicians in those provinces are sufficient but most of them work in provincial hospital. They try to seek for volunteers in other community hospitals to rotate to those community hospitals periodically for a short period without any policy to rotate the physicians in provincial hospitals to help the physicians in the community hospital of the same provinces. We can see this in the report to the MOPH by Na Songkhla, M. on 24 October 1994.

"1.Urgent strategy 1994-1995, to seek volunteer physicians must be done by. (a) The physicians must voluntarily apply by themselves. (b) The term of practice is 1-2 months. (3) It is not necessary to have physicians every month. (c) The Department of Rural Health has to appoint the coordinator to this matter. 2. Short-term strategies, 1995-1996 (a) using any strategy that truly creates

goodwill for physicians to practice in community hospital. (b) If that hospital has inadequate money, they may use money of other community hospitals to pay the allowance for non-official time practicing of the volunteers. The MOPH will return budget for compensation. (c) The community hospitals ought to receive the medical students in community medicine to training in the hospitals. (d) The physicians who voluntarily work in the 5 Southern frontier provinces must have special allowances.
(3) Long-term strategy is to give special quota for the rural students to study in medical schools." (Rob Wang Dheves: from the MOPH's monthly conference, 1994: 53-54 in Thai)

So we can say that the policy makers in the MOPH have only the idea of sending new physicians to work in community hospitals. If the situation still is as it is now the physician shortage problem in community hospitals will persist.

A.1) Having no Physicians in the Community Hospitals of four Southern Provinces: a Case Study using only New Graduated Physicians Working in Community Hospitals

Studying physician shortage in the community hospitals of the four Southern provinces in the year 1994 shows the idea of the policy makers. It is the idea of using new physicians to work in community hospitals not tjose with experience. Three years after this critical situation, the following strategies did not change from the past.

The shortage of physicians in community hospitals was most severe by the year 1994. When we analyze the data of the physicians who work in the public sector in the four southern provinces, we find that these provinces seem to have physician shortage problems as the others. If we use the physician per population ratio to indicate physician shortage in these provinces we find that; (1) there is a physician shortage at the district level because the ratio is slightly low. (2) it is important important problem if we use the total physician per population ratio of the whole province, because the ratio is similar to the whole country. It shows us that physician shortages in those community hospitals are not true shortage but a problem of distribution. The defect is that the physicians in provincial hospitals do not rotate to community hospitals. It is doubtful because the Chief Medical Officer of those

provinces cannot command the physicians in provincial or regional hospitals to take responsibility for the shortage problem in their provinces or because they do not keep in mind that it is their duty to do so.

By exploring the physician per population ratio of these four provinces by the year 1994, the data are: (1) the physician per population ratio of Narathiwat Province is 1:12,515 (2) that of Pattani province is P: 5721. (3) that of Yala Province is 1:4,392, and (4) That of Satun Province is 1: 9,274.

In the same year, the health facilities of the MOPH in these provinces are:

1.) Narathiwat Province has one provincial hospital and ten community hospitals with a total of 45 physicians.

2.) Pattani Province has one Provincial hospital and 11 community hospitals with a total of 46 physicians.

3.) Yala Province has one regional hospital, one provincial hospital and five community hospitals with a total of 89 physicians.

4.) Satun Province has one provincial hospital and five community hospitals with a total of 26 physicians.

When we compare the physicians per population ratio between the central district under the responsibility of provincial or regional hospitals with the ratio in peripheral districts that are under community hospitals, we find they very different. The peripheral districts face physician shortage problems up to no physicians at all while the central district physicians are in excess. The ratios of the central district of these provinces are close to the ratio of whole country. That is 1:4,165 (Table7.3 in appendix).

From the ratio above, we can see that there is a lack of coordination between the physicians in the public sector and the provinces. This may be from a lack of coordination of Chief Medical Officers, directors of provincial or regional hospitals

and the physicians in those hospitals. They all ignore the problem and place only compulsory physicians in the community hospitals. The physician shortage will not occur if all physicians in the public sectors of those provinces take response together. This because the physician per population ratio in these provinces is slightly good when compare with the ratio of the whole country.

So the main factor of physician shortage in the community hospital in these provinces is the defect of physician distribution especially the physicians who work in the government hospitals in the same provinces. This evidence is the result of (1) the line of command of community hospitals and the provincial or regional hospitals are under different divisions of the MOPH. Community hospitals are under the Rural Health Division while the provincial or regional hospitals are under the Provincial Hospital Division. So they practice independently. (2) Chief Medical Officers do not have real authority to command provincial or regional hospitals, although the line of authority let them to do so. Thus they cannot command the physicians in these hospitals to work in the community hospitals. So they ask help from the ministry to seek volunteers from other community hospitals by the strategy mentioned above. (See page 133)

A.2) Increasing the Number of New Physicians to Fill Vacancies

From this crisis, the MOPH blamee the physicians who did not want to work in remote areas. The strategies used by the MOPH during this period are to increase new physicians in the rural areas with a new program of medical student selection and education to select physician who have willingness to work in community hospitals. Without any new strategy, the MOPH resurrected the rural recruitment project and renamed it as CPRD (Collaborating Project to Increase Rural Doctors). This project is proposed in the MOPH conference 2 December 1993.

"MOPH ought to pay attention to the increasing production of physician policy for adequacy in the rural health facilities and ought to promote the CPRD that selects the rural students to study in

medical education. These physician will be sent to where they came." (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 111 Thai Ibid.)

Several conferences after the conference on 2 December 1993, the policy makers in the MOPH did not propose any other policies. They only increased physician production as in the conference on 24 October 1994. The policy makers increased physician production by setting new medical schools of the MOPH. This is to increase power in their own authorities because the MOPH will be larger with wider functions. To set up new medical schools, the universities rejected the MOPH, forcing them to collaborate with existing medical schools. By the year 1995 the rural recruitment was reused and the MOPH called this project CPRD

" The MOPH will collaborate with other health agencies to increase production of physician and nurses to adequacy. Also quality improvement of health personnel is needed." (Rob Wang Dheves: from the MOPH's monthly conference, 1994: 56 in Thai Ibid.)

The objective of this project is to select rural medical students to study and send them to their hometown as the MOPH scholar physicians. The director of the Office of Technical Cooperation & Manpower Development had reported this in the MOPH conference.

"The MOPH must ask for the approval from the cabinet to let these medical students be granted the MOPH scholarship." (Rob Wang Dheves: from the MOPH's monthly conference, 1995: 49-50 Thai)

The idea of increasing physician production persists in the mind of the policy makers without any administrative policies until 1997. The MOPH proposed the "Physician Shortage Problem Solving Strategy of the MOPH" in three stages. All three stages do not change from the past. It does not manage the distribution of the experienced physicians. These stages are:

"For long-term strategy, there is a committee appointed to respond to the problem. The extraordinary production of rural physicians is 300 per year in a 10 year period by collaboration with the university... Furthermore, this project will ask for the approval of the cabinet to let these students be

MOPH scholars. When they graduate, the MOPH will send them to practice in rural areas as designed. (Rob Wang Dheves: from the MOPH's monthly conference, 1997: 41 Thai)

"For short-term strategy, new physicians do not have knowledge in administration, the committees has proposed many strategies as (1) sending the chief of Administrative Division of Community Hospitals to train in middle level administrator training programs for helping the directors of those hospitals. (2) Increasing incentives for physicians and nurses in community hospitals to increase willingness in working. (Rob Wang Dheves: from the MOPH's monthly conference, 1997: 41 Thai Ibid)

From these data, we can see that the policy makers of the MOPH, who are mostly physicians, try to use only the policies that do not affect the existing physicians. They policies to manage the new graduates and this idea does not change.

B.) Importation Physicians from Abroad

To increase the number of new physicians in community hospitals, it was proposed to hire the physicians who graduated overseas. This idea tried to hire them from the private sector or retired physicians but it is complicated to do this because the regulations are not open to that. (Rob Wang Dheves: from the MOPH's monthly conference, 1997: 41 Thai Ibid). To hire these physicians, the hospital must ask for approval from the MOPH once a year. (Advisory physicians in Rural heal Facilities project, MOPH in the letter from Rural Health Division N^{o}. 0212/30/2/255, 14 March 1999) It cannot solve the problem. This also shows that policy makers avoid affecting the usual medical system of physicians especially those in large hospitals because the executives both in the MOPH and the Thai Medical Council are mostly from large hospitals.

If the policy makers do not change their ideas, the problems will persist because the whole system of medical services is not changed. Furthermore, most physicians deny responsibility for the community hospitals, thus to solve the problem the whole system of medical services and physicians must be reformed from the rural level up to the medical schools.

7.2.2 Increasing Incentives for Physicians: Professional Thinking and Negative Feedback to Community Hospitals

The aim of increasing incentives to rural physicians is to persuade them to practice in public sector, to increase efficienct work and to raise their income to nearly equal the private sector. According to this strategy, it induces wider gaps between rural and urban physicians because indiscrimination and inflexibleness of this strategy.

The MOPH used this strategy from 1993-1997 to stop external brain drain. The incentives used were non-private practice allowance and allowances for non-official hour emergency services with special workload payment.

A.) Non-Private Practice Allowance

The non-private practice allowance payment was a policy used by the MOPH to stagnate external brain drain of physicians, dentists and pharmacists from the MOPH to private sector. (Rob Wang Dheves, 1993: 25, 36) Because of indiscrimination and inflexibleness of the bureaucratic rule; the urban and rural physicians have to be under the same rule which does not accord their different work; this strategy made wider gap between rural and urban physicians and it push the rural physician away from community hospitals. This is the negative effect of this indiscriminate and inflexible bureaucratic rule. The goal of this allowance was not achieved because it could not stimulate better work conditions of physicians in community hospitals or other health facilities. There is a comment from the Committee on Budgetary to the House of Representatives, Fiscal year 2000 on whether this allowance is worthy or not. They say that some physicians who receive this allowance still practice in private sectors.

"Since the non-private practice allowance is paid to the physicians, the budget is worthy or not. Most physicians work in their private clinic in non-official time more than in the hospitals. This leads to long-time waits by the patients. The ethic of new generation of physician is not the same as the old one. How does The MOPH manage this problem?" (Summary from conference report of the 4th

Cegional Cooperative Health Committee, 4th times, Nakhon Pathom Chief Medical Office 24 August 1999 Thai)

This allowance makes hard work in the community hospitals because the patients have more expectations on the physicians. They must work harder than usual because the number of physicians in community hospitals is very few. They must work harder than those physicians in larger hospitals also. As we say that the policy makers are medical professionals in the health facilities larger than community hospitals, so they allow the physician in larger health facilities receive this allowance also as the executives in the MOPH had to approve the proposal of the committee:

"The cabinet has approved paying non-private practice allowance at $400 per month, proposed by the MOPH, to the physicians who practice in epidemiology, public health, health research and medical sciences and agree not to enter private practice." (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 50 Thai)

Since then this approval the non-private practice allowance has not solved the physician shortage in rural areas. Although some executives as Meekhanon C. (the former Deputy permanent Secretary) and Chokwiwat W. (the Former Chief Medical Officer in Public health Development) had debated that this allowance must be specific only to the service health facilities to solve external brain drain directly. (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 50 in Thai Ibid.) The Legal Affairs Division had claimed that it also covered the physicians in center levels. (Rob Wang Dheves: from the MOPH's monthly conference, 1993: 50 in Thai Ibid.) This allowance for the physicians in center levels is not available by the year 1993, there were several attempts to propose this again to the MOPH conference on 30 March 1994 and 13 July 1994. (Rob Wang Dheves: from the MOPH's monthly conference, 1994: 59,112 in Thai Ibid.)

From this data, we can see that this allowance is not for the sake of solving the physician shortage in community hospitals for the rural population. It is the policy for the sake of most physicians to have more income. The first year of using this

allowance payment, we can see half of the total payments were paid to the physicians in community hospitals, out of the total of 739 physicians, 379 were in community hospitals, 44 were in Provincial Chief Medical Offices, 130 were in regional hospitals, 159 were in provincial hospitals, 27 were in Regional Health Centers and 2 were in the Department of Medical Sciences. (Table7.4 in appendix) Thus about a half of the budget used in this project went to towns, so the goal of this project was not achieved and it was not truly effective to solve the physician shortage.

B.) Non-Official Time Allowance

To provide incentives for physicians who deliver rural services, the government started special allowances for district hospital physicians in 1975. There were two rates of allowance. For regular districts the rate was US$60 per month for the first year, and US$68 per month from the second year of service onward. For more remote areas, the first year allowance was US$80 per month followed by US$88 per month from the second year onward. These allowances were approximately equal to the monthly salary of the newly graduated physicians. In 1983 these allowances were increased to US$80 and US$88 for regular districts and US$100, and US$108 for remote districts. These allowances prohibited rural physicians from accepting any travel per diem, or on call payments

It was not until the rapid economic growth with the resultant rapid growth in the private health sector and internal brain drain that the government initiated increased financial incentives for public physicians. But these came rather late, with inefficiency and some degree of unfair implementation.

In 1994 on-call payments were allowed for rural physicians who received special rural allowances. In 1995, a non-private practice allowance of US$400 per month was given to any doctor (in the MOPH) who agreed not to engage in private practice. To increase productivity, the MOPH in 1995 also started non-official hour services for elective patients (before that it was only for emergency patients) with special workload related payments.

Although rural physicians in community hospital received this allowance by the same regulations of the MOPH as in large hospitals, there was a difference in practice. This difference makes the physicians in community hospitals inferior to the physicians in large hospitals because:

a. The regulation that allows paying this allowance is not suitable to support work in community hospitals. The period of non-official working time is referred to in large hospitals at not less than 8 hours working time. It also allows each physician to receive only one period per night, while the physicians in community hospitals must work all-night or two periods of non-official time working or three periods on weekends. So practically they receive less allowance when compared with provincial or regional hospital hospitals.

b. The rate of payment per period of non-official time in community hospitals is only half of that in provincial or regional hospitals.

a. Unsuitable Regulations of Payment

According to the MOPH Regulation for Paying Allowance to Health Personnel in MOPH Health Facilities 1993, section 2, part 1, we can see inequality between the physicians in provincial or regional hospitals and community hospitals. We will explore some parts of this regulation that show the policy makers do not understand the work of the community.

" 11. Health personnel can receive this allowance if they meet these criteria:

11.4 They must work at least 8 hours per period or others as the chief of that unit defines.

11.5 They can receive this allowance only one time per day.

12 If the working time is less than 8 hours, The allowance will be reduced according to the timed reduce. If the part of an hour is less than a half it will be cut off, if it is over half it will be calculated as one hour." (MOPH Regulation for Paying Allowance to Health Personnel in MOPH Health Facilities 1993)

The factors that make the physicians in community hospitals inferior to physicians in provincial and regional hospitals according to this regulation are:

1. Limitation working of time; this regulation limits work time to not less than 8 hours. If the working time is not full 8 hours, the allowance will be reduced in proportion to the time reduced. The non-official hours will be divided to 2 categories (a) Monday to Friday night the working hours are 4.30 p.m.-0.30 a.m. and 0.30-8.30 a.m. (b) Weekend night are 8.30 a.m.-16.30 p.m., 16.30 p.m.-0.30 am. and 0.30 a.m.-8.30a.m. So this is not practical for work in community hospitals because it is not increased according to the tine increase. It is because only few community hospitals have more than one physician to work per nigh.

The data of physicians by the year 1995, when this regulation was first used, showed 682 community hospitals with 1,574 physicians. The average is 2.3 physicians per community hospital. It is impossible for community hospitals to have more than one physician working per night. Most of them must work for two periods while they can receive the allowance only for one period as in this regulation. These examples will explain why.

Example 1: the community hospital with one physician:

From Monday night to Friday night, the physicians must work 16 hours per night (4.30 P.M.-8.30 A.M.) but they receive only 8 hours or half of the physicians recieved in provincial hospitals that have more physicians.

The situation is worsened weekends because they must work 24 hours but they receive allowance for only 8 hours. This is only one-third of that in the provincial hospitals.

Example 2: The community hospital with two physicians.

From Monday night to Friday night, if the physicians who do not want to work in non-official hours every day will receive a half the allowance as in a one

physician hospital. This is because they must work for 2 periods with one period allowance.

On the weekend, (1) they will receive one-third of the allowance if they do not want to work everyday of the weekend. (2) They may receive a half of that but they must work everyday of the weekend because one physician must work 8 hours and the other work 16 hours alternately.

Example 3: the community hospital with three physicians:

From Monday night to Friday night, they can divide to work into 8 hours periods but they must work for two-third of the month.

In the weekend, they can also divide to work into 8 hours periods but they must work everyday of the weekend.

From the above data we can see that physicians in community hospitals are inferior to those in the provincial hospitals. They must work harder while the allowance is lower. If they want to have high income as the physician in provincial or regional hospitals, they must work harder. We can say that this is the capitalistic way supports the towns rather than rural areas. This causes resources to drain from rural areas to towns.

b.) The Allowance That is Based on Specialty

Medical treatment by specialists is a division of labor in capitalist means of production. It is proper in the unit where manpower is not a problem. So it is improper for work in community hospitals where the physicians are inadequate. The practice in community hospitals is general practice or family practice. In emergency practice they must cure all patients by themselves that is hardship practice. The allowance paid to physicians in community hospitals by the MOPH regulation in 1993 is unjust for them

because it is only half of the physicians in provincial hospitals. It can be seen that the policy makers in the MOPH do not see general as important as specialty practice or most of them follow western type professionalism. This allowance limited physicians in community hospitals.

"14.under regulation 12, physicians can receive this allowance under these criteria: (1) The physicians who stay in the wards or emergency room and are ready to cure patient promptly, receive $20 per person. (2) The advisory physicians that stays in the hospitals will receive special workload related payment as listed in the last section, not less than $10. (3) The administrative Board of the hospital and the Chief Medical Officer must define need of specialties, number of physicians per period of working, type of work as (1) or (2) in provincial, regional hospitals or other hospital with the same work type. However it must according to the financial status of that hospital. (4) The director of community hospital can provide their physicians work (1) or (2) according to the need and financial status of the hospital when the Chief Medical Officer has approved. In the case that they cannot provide (1) or (2), they must receive $10. MOPH Regulation for Paying Allowance to Health Personnel in MOPH Health Facilities 1993)

From the above details we can see that paying allowances to physicians in community hospitals is unjust and affects work in community hospitals. It is one factor that rapidly pushes the physician away from community hospitals as soon as the contracts are over. Moreover it induces improper structures in community hospitals that have a tendency for specialty treatment rather than general practice (addressedin the next part of this chapter). This is from:

1.Most policy makers in the MOPH are physicians, and their solutions are from medical professionals. Medical treatment rather than prevention dominates most policies. The physicians in community hospital become less important than physicians in provincial hospitals because their practice is general practice not specialty.

2. The policy makers pay more attention to the provincial and regional hospitals than community hospitals. They are not concerned that each community hospital has so few physicians as to provide the non-official hours per period as in the regulation defined. Most physicians in community hospital receive $10 instead of $20 although they work harder. The physicians in community hospitals must take care for

the inpatients and the emergency patients per one period at the same time because the number of physicians is limited.

7.2.3 Improper Structure of the MOPH: The Structure of Specialists, the Result of Western Capitalist Professionalism

The structure of the MOPH has developed special professions and is inclined to support specialists. Even in community hospitals, the structure now does not support GPs to work, in contrast it pushes the physicians into the specialty system rapidly.

The Professional Structure: the Orphan GPs

There are three factors that induce the physicians to leave community hospitals to the specialty system of medical professionalism. These are:

1) The MOPH, the commander of community hospitals, has ignored GPs in community hospitals; furthermore in public health systems. The MOPH has defined the job of community hospitals to 50 % health promotion and disease prevention and 50 % medical treatment. Also, the MOPH defines the quality of physicians in community hospitals to be specialist in general practice, community medicine or preventive medicine. The MOPH has neglected them and does not try to support them anymore. Mostly the MOPH supports pecialists. (See details of community hospitals' job in table 7.5)

2.) The Thai Medical Council also neglects the GPs in health systems and seriously supports specialist training that rapidly drain the physicians from community hospitals.

3.) The domination of physician training centers in MOPH structures: the policy of specialty training floods to other specialties rather than GPs.. This is a constant attraction of physicians from community hospitals.

In the MOPH's view: the structures of the MOPH are inclined to support the specialists seen from the three years personnel classification of the MOPH from 1995 to 1997.

a.) GPs in community hospitals are inferior to GPs in provincial or regional hospitals. From 1995 to 1997 personnel classification of the MOPH, the highest rank of GPs in community is only at P.C. 8 while GPs in provincial or regional hospitals are at P.C. 9 although the GPs in community hospitals have a wider range of duties. (The MOPH has proposed GPs.in community hospitals to P.C. 9 but it is covered up by the highest executives and this has not been practiced since then.) (Public health Calendar, 1995: 40-41)

b.) The policy makers see that GPs are less important than other specialists. Even in provincial or regional hospitals, GPs. are only at P.C.9, while other specialists such as general internist, surgeon, orthopedist, pediatrician, ophthalmologist, Rhino-otolaryngologist are P.C.10. The physicians in these hospitals have higher rank than other paramedical professions also, the highest rank of these paramedical professionals is only P.C. 6-8. (Public health Calendar, 1995: 40-41)

The Thai Medical Council view sees that GPs are not as important as other specialists, as seen from the name lists of physicians in either the name list book 1996 or its homepage 2000.

a.) In the name list book: 1996, the editor cited the data of specialists from those who received certificates from the Thai Medical Council, though, there are not any name lists of the GPs who received certificates from the Thai Medical Council. There are only the name of specialists in surgery, internal medicine, pediatrics, Ob-

gyn, anesthesia, psychiatry, Oto-rhinolayngology, radiology, ophthalmology, pathology, and orthopedic surgery except specialists in general practice.

b.) When we double-check this in the homepage of the Thai Medical Council, the searching areas of the homepage have no GPs. listed also.

We can say the executives of the Thai Medical Council do not keep GPs in their mind. It is impossible that they forget to record these in their job because the book has the names of specialists in clinical pathology, only 25 persons in Thailand. In other words, most physicians are attracted to the capitalistic medical professions, which use high technology treatment, rather than prevention. So they forget GPs.

The researcher has asked the question to the secretary-general of the Thai Medical Council "Does the Thai Medical Council think that physicians, who receive GP. certificates or preventive medicine certificates from the Thai Medical Council, are specialists?" on 23 September 1999. The answer received can reflect these two specialties are less important in their mind.

"In fact, the Thai Medical Council realizes that all physicians who pass the examination and receive certificates in these two specialties from the council are specialists as other specialties. I don't know that it is occurred like that if it is so. I must excuse for this matter. This matter has reflected the idea of the editors also. (Kunarattanpreuk, S., in the conference of Rural Doctor Society at Rama Garden Hotel 23 September 1999)

The View of Training Centers in the MOPH structure does not show interest to train GPs, and this affects the policy makers in the MOPH also. The recent example of this matter is the selection for training residency in the educational year 2000; there is a quota of 60 seats for training general practice and family practice. Only two medical schools are open for training these specialties and there are only 10 seats open. The only two medical schools are Phra Mongkutgloa Medical College and Chonburi Hospital. In contrary, the other specialties are fully opened. (Table 7.6 in appendix) When the MOPH and the training centers are not interested in training

general and family practice, the physicians who enter this specialty are very few. Most of them do not enter training centers but study by themselves. Each year the physicians which certificates in general practice are fewer than other major specialties except for subspecialties even by the most recent year 1999, the physicians with certificate in general practice are 1.62 % of total physicians. (Table 7.7 in appendix)

When the MOPH, physicians, and training centers neglect general practice specialty, the policy makers of the MOPH are dominated by these three factors. So the policy about general practice promotion is not clear, it is a dual policy. The MOPH seems to promote general practice in community hospitals and promote general practice training by freely open the quota for all physicians who wants to enter this specialty. Meanwhile the MOPH opens equal quota of other specialties as the physicians whose contracts are over. The other is that the MOPH try to send specialists in internal medicine, pediatrics, surgery and Ob-gyn to practice in community hospitals, that is contradictory.

1. The MOPH seems to promote the quota for GPs. We can see from the announcement of the MOPH for selecting for residency training program: educational year 2000.

"Quota without limitation in quantity and contraction: The physicians can select the hospitals they want to work in after graduation: (1) Preventive Medicine in Epidemiology (2) General Practice/ Family Practice (3) Preventive Medicine in Occupational Health (4) General Pathology (5) Anatomic Pathology (6) Clinical Pathology and (7) Forensic Medicine. The physician graduates in the first specialty can work in any provincial, regional, community hospitals or Provincial Medical Offices. Those who graduate in the second specialty can only work in provincial, regional or community hospitals. Those who graduate in third to seventh specialties can only work in provincial or regional hospitals." (The MOPH's announcement for selecting physicians in residency training program: educational year 2000 on 15 July 1999)

This policy does not support general practice in the medical system but hinders the physicians to enter general practice training programs. The whole medical system does not encourage them to be general practitioners, when this policy does not define the exact demands of GPs or control other specialties, only few physicians

prefer entering general practice. Thus, physicians cannot work prestigiously in community hospitals causing physician shortage.

2.While the MOPH does not define the exact demands for general practice training, the MOPH defines yearly demands of other specialties that are enough for all of the third year compulsory physicians. Thus all of newly graduated physicians, whose contracts are over, can leave community hospitals to residency training.

When we explore the number of compulsory physicians of the MOPH from 1995 to 2000 and compare with the quotas for residency training of the MOPH three years after graduation; the number of quotas and the physicians are nearly equal. (Table 7.8 in appendix) (Newly graduated physicians must work for compulsory health services for two to three years before they can enter residency training.) The data show that new graduated physicians of the MOPH are 458, 593, 578, 763 by the year 1995, 1996, 1997, 1998, 1999 while the quotas of specialty training for them are 552, 626, 574, 757 by the year 1998, 1999, 2000, respectively. Thus all newly graduated physicians are drawn to specialty training by the MOPH system (Table 7.9 in appendix)

Someone may argue that the physicians who enter residency-training programs are less than the quotas of the MOPH. The data of physicians in residency-training programs of the MOPH are 146, 224, 246, 311 by the year 1995, 1996, 1997, 1998, much lower than the quotas. However, the residency training system has widely opened the physicians to free training without contract from any hospitals by resigning from the previous hospitals. Also they can sign contracts with any non-MOPH public hospitals.

To explore the idea that nearly all physicians prefer being specialists supported by the medical system the previous data of graduate physicians was compared with the specialists of the year 1971-1993. These two numbers of physicians are nearly equal year by year. The preference of being specialists gradually increases

and rapidly increases during the economic boom by the year 1992-1996. The physicians in specialties are 97.7 –113.3 per cent of the new graduates in the corresponding years. It means that the former physicians also entered the residency-training program. (Table 7.10 in appendix) [Physicians, who graduate in this year, must work for compulsory health services for three years then they train in a residency program for another three years. Thus six years are needed after graduation.] Thus we can say that almost all physicians are drawn to the specialist system without any attempt of the MOPH to manage them and let community hospital incur shortages.

2.The MOPH is an important factor that pushes the existing physicians in community hospitals to the specialist system by giving quotas in residency training. The defined quotas for residency training in community hospitals which are internal medicine, pediatrics, obstretics and gynecology and surgery. The MOPH does not define general practice. The MOPH hoped that these physicians can work in community hospitals long term after being specialists but it is not so. These specialists leave community hospitals to practice in provincial or regional hospitals as the un-trained physicians. Chindawatthana, A., the director of phraborommarajchanok Institute had lectured these in the conference of the Rural Doctor Society, 1999, in the "Physician Shortage in Community Hospital: a Persistent Problem and the Solution".

"The idea of having specialists in community hospitals ought to be abandoned because these specialists must work alone. There are few academic climates in the community hospital they work, so they try to move to more academic climate workplaces and more specialists."(Chindawatthana, A., 1999: The conference of the rural Doctor Society, 1999 in the Physician Shortage in Community Hospital: a Persistent Problem and the Solutions on 23 September 1999)

The MOPH does not change their attempt to have specialists in community hospitals. When the specialists do not go back to the community they have contracts, the MOPH tries to please the physicians by using the quotas as central quotas and letting these physicians select their hospitals after residency training. These quotas increase yearly, and if the quotas are not limited, all physicians in community hospitals will be specialists. That contradicts to the philosophy of community hospitals. We can see that the MOPH increases quotas of community hospitals and the

central quotas of 50, 50, 84, 81,88 and 141 qoutas by the year 1995, 1996, 1997, 1998, 1999 and 2000, respectively. So the physicians that will remain working in community hospitals will be new graduates as the past and the MOPH must produce new physicians for this purpose constantly.

The MOPH directly neglected the general practice in community hospitals. The MOPH tries to develop community hospitals to serve the physicians by directing community hospitals to specialty contrasting the first ideas of establishing community hospital. Thus general practice in community hospital is not promoted and that is why the physicians leave community hospitals to gain higher prestige from being specialists in large hospitals. The MOPH still cannot solve the physician shortage in community hospitals now.

7.3 Medical Professionalism Domination over the Provincial Authority: Disharmony of Problem Solving

From the existing data we can see that community hospitals lack physicians while the provincial or regional hospitals of the MOPH have plenty. There is not any coordination between the MOPH health facilities and the Chief Medical Officers of those provinces cannot manage this problem. They cannot distribute the physicians in provincial or regional hospitals to help patients in community hospitals. This is a division of labor. The example can be seen well from the shortage of physicians in the southern provinces mentioned above. These hospitals are also under the command of the Provincial Chief Medial Officers but they cannot do this because.

a.) **Discrimination of authority**: Community and provincial hospitals or regional hospitals are under different divisions of the MOPH although they are also under the command of Provincial Chief Medical Officers. Community hospitals are under the division of Rural Health while the provincial and regional hospitals are under the division of Provincial Hospitals. The provincial or regional hospitals are only the advisors for community hospitals in technical support not work support.

(Figure 7.7 in appendix) So medical cares in provincial levels are separated, there are divergences in the line of authorities, and also the patients are divided into two parts. The first is for community hospitals that is general practicing, the other for provincial hospitals that is specialty practicing. There is no charity from the physicians in large hospitals to the patients in community hospitals because they do not want to work as general practitioners even when there are no physicians in community hospitals. Meanwhile the Provincial Chief Medical Officers cannot order them to do so. This is a persistent phenomenon. One of the directors that has over 20 years experience in community hospital complained to the conference of Rural Doctor Society:

> "It is doubtful that the physicians in provincial hospitals do not treat patients as general practitioners in the hospitals whilr they do that at their private clinics. So when the community hospitals ask for their help, they deny community hospitals or they try to contend to treat only the patients in their specialties. Even when there are no physicians in community hospitals and there are plenty in provincial hospitals, they do not. The Provincial Chief Medical Officers cannot make any command." (Kiatsaengsilapa, D. 1999: general debate)

Unless the Provincial Chief Medical Officers can command the physicians are there in the provinces, the community hospitals still have no physicians as in the southern provinces from 1993-1994 mentioned above.

The experience in the southern provinces shows that the MOPH seems to overlook the roles of the Provincial Chief Medical Officers that must look after the health systems of those provinces. On the other hand, the MOPH does not think that they cannot do that because of unreal authority.* Instead of using the usual authority of the provincial level to distribute the physicians in provincial hospitals to community hospitals, the MOPH seeks volunteers from other community hospitals to rotate to

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* The authority of Peovincial Chief Medical Officer from the handbook of Local Health Administration, 5th edition: 1988 (1) Being the commander of the provincial health personnels and health personnel from the center that their health units locate in that provinces. (5) Policy making of provincial healt policy in the form of health policy planningand assesment committee in helath promotion, disease prevention, medical treatment and rehabilitation underthe umbrella of the MOPH policy. The policy must match with the provincial problems. (7) Organized the medical system in control to acjhieve goals of the MOPH

those community hospitals in addition to the bureaucratic method of work that is appointing committee to study the problem and solutions.

The key persons in this committee are the directors of Yasothon Hospital (the general hospital) and the director of Hua Hin Hospital (the community hospital). The methods they proposed to solve the problem also emphasize the idea of independent work because they had proposed the methods that did not deal with the physicians in provincial or regional hospitals. (See this report by Na Songkhla, M., on 24 October 1994 in page 133) (1) They do not suggest the Provincial Chief Medical Officers to rotate the physicians in the provincial or regional hospitals to practice in community hospital when there is physician shortage in community hospital even for a while. On the other hand they may think that the Provincial Chief Medical Officers can't, although both of them are experienced persons in hospital administration. (2) The director of Yasothon, who is the senior among directors of the provincial hospitals, does not suggest that the physicians in provincial and regional hospitals must share this obligation. This will have major effects on unequal distribution, even at provincial levels and induce shortages of physicians in community hospitals.

b.) **Domination of Professionalism in Organization**: Medical professionalism has completely dominated either the authority of the commanders or the physicians in community hospitals. It is the result of discrimination in line of authority and work. This leads to two types of domination. (1) The domination over the physicians in community hospital makes a "second class physician phenomenon" that is the physicians in community hospitals are underestimated in their importance and experience.

Second class physician phenomenon is known countrywide by the physicians in community hospitals. Even in the conference, a director from a northeastern community hospital, a lecturer in the Rural Doctor Society conference, raised this point by asking the director of Phraboromrajchanok Institute, the secretary-general of the Thai Medical Council and the deputy Dean in Academic Affairs, Chulalongkorn

University in the conference, "Are there any ways to support general practitioners to be underestimated as the second class physicians? (Pokpoemdi, P. 1999 lecture)

Because of being underestimated as the second class physicians, it affects the pride of the Provincial Chief Medical Officers. Most of them are community hospital directors of who progress in their line of administration. This causes (1) their abilities incline to manage only the community hospitals not the provincial health system. The good example is seen in the case of physician shortage in four southern provinces that the commanders cannot manage the distribution of physicians from the provincial hospitals. (2) The progression in personal classification (P.C.) of Provincial Chief Medical Officers is less than some specialists in the regional or provincial hospitals. They can only progress to P.C. 8-9 meanwhile the specialists in regional hospitals can progress to P.C. 9-10 and practice as directors of those hospitals. (Table 7.11 in appendix) So they are more senior than the Provincial Medical Officers in prestige or professionalism. This evidence has occurred in many large provinces with regional hospitals. By the prestige of professionalism they cannot manage the physicians in provincial or regional hospitals; only seeking for cooperation, that is rarly given.

From the existing data we can say that the cause of physician shortage in community hospitals is the domination of professionalism in the MOPH. The MOPH does not really support general practitioners; many attempts are dictated to develop the specialties in health system. It leads to discrimination of physicians in community, provincial, or regional hospitals as well as between provincial or regional hospitals and the Provincial Chief Medial Officers. When the physicians in medical professionalism have higher prestige than the authority in the MOPH they can deny or overlook practicing in community hospitals without any policy to manage them even when in crisis.

The structure of the local health facilities needs change to make unity and good cooperation among facilities in rural areas. The chance must come from the policy at the MOPH level to support the change at provincial levels.

Conclusion

We can see that the structure of the MOPH and the health policy is dominated by medical professionalism. The current of capitalism make benefit to the medical professionalism with high technology and western health care. When the policy makers are physicians, the policies they create cannot avoid traditional ideas. The use of power and authority on the less powerful such as the new graduate is repeatedly used to avoid affecting themselves. The structure of the community hospitals referred to the treatment area of large hospitals that is unsuitable for work. The strategies to solve physician shortages in community hospitals will not succeed if the ideas involve professional ideas. In the next chapter we will explore medical professionals of other sectors that dominate the MOPH.

CHAPTER VIII

PROFESSIONALISM AND PHYSICIAN SHORTAGE IN COMMUNIUTY HOSPITAL

From the former chapters, we can see that medical professionalism has intervened in the policies or MOPH policies. In this chapter, we will study the roles of medical profession or professionalism in physician shortage problem in community hospitals.

The former medical profession in Thailand is the traditional medical system; there were no specific medical schools for teaching. Medical knowledge continued by learning one by one since the Sukhothai period to the early Rattanakosintara period. Sometimes the western medicine tried invaded Thai tradition but the Thai medical system survived. At the end of the First World War western medicine took over the Thai traditional medical system by the assistance of American capitalistm. Thai tradition medical system became fraudulent and Thai medical system has been only western style medical system since then. The western type medical system has special characteristics. It is confined in only the professionals that are limited and mostly in the government facilities and depends on high technologies from abroad. So the medical services cannot be spread throughout the grass-root class and it diminishes people's selves-reliance and care. The gap between the providers and the clients widens to an unmet need.

This chapter studies the Thai medical professionalism in several dimensions that have important roles in the western style development of the medical system in Thailand. Although the development of the medical system has several positive effects to the quality of life and can abolish several diseases that hazard to the people, in contrast, professionalism leads to an unequal distribution of health resources either

personnel or medical equipment. Most of them are plentiful in urban but rare in the rural areas. This is why there is a physician shortage in community hospitals.

We will discuss this by following categories. (1) The development of the Thai medical system that turned it from a self-help traditional to be a dependent western style medical system, because it is limited to only medical professions who have special medical knowledge. Other medical systems are illegal in the view of medical professions and are controlled. (2) Western medicine has dominated Thai medical culture, so Thai physicians prefer to be specialists and mostly work in the large hospitals in the towns not the rural areas. This imitates the teachers in medical schools or the former physicians. (3) High specialization and specific knowledge make the physicians have ability to control their own profession and make policy that effects an equal distribution of physicians. These policies are (a) The policy of selecting medical students useful for higher opportunity family in urban centers. Therefore, they are familiar to work in towns rather than unfamiliar rural areas. Furthermore, the private medical schools are limited that is entry barrier of this profession. (b) The policy of medical system development is inclined to high specialization rather than general practice and is not suitable for the rural practice because the government cannot provide enough. Then it affects the equal distribution of physicians to the community hospitals. (3) The policy to control private hospitals that drain specialized personnel and equipment and lets it overgrow because most policy makers are specialists. The over-growth of private hospital is one of the major factors that draw physicians from community hospitals.

8.1 Development of the Thai Medical System: Development to Self-Help Loss in Health Care

We can say that the Thai medical system depends on foreign economic systems because Thailand must import all medicines or medical equipment from abroad. Very few can be produced within the country. The costs of medicine imported increases nearly fivefold within ten years, 64.3 million $291.9 millionand US $US by the year 1988 and 1996 respectively. When combined with the chemical agents

imported to produce medicines, the costs have increased from 295.3 million $US to 855.7 million $U.S. in corresponding years. These values do not include the cost of medical equipment that must be imported. (Table 8.1 in appendix)

To study the development of Thai medical systems, this study divides the development into three periods. These are (1) the period of pure traditional Thai medicine with ability in self-help, (2) the period of challenge from western medicine and western capitalism and (3) the period of complete domination of western medicine over Thai medical systems.

8.1.1 The Period of Pure Traditional Thai Medicine with Self-Help Ability

Thai traditional medicine has existed since the Sukhothai period. The root of Thai traditional medicine may be from Ayuravet medicine from India, with the hypothesis that an imbalance of four elements in the body causes diseases. These four elements are earth e, water, wind, and fire, the well being of any person depends on the balance of these elements. Whenever these elements are imbalanced, the body will be weak and develop diseases. To treat the patients is to re-balance these elements by using suitable herbs.

Although Thai traditional medicine developed from Ayuravet medicine, it developed until it had special characteristics in its own. Most traditional physicians use herbs that can be found in the country, at the same time, we cannot find these herbs in India. Though, Thai traditional medicine did not use scientific thinking in diagnosis and learning, and has no unity, it is useful and effective for the Thai nation. It can help Thai people maintain Thai nation without dependence on other medical systems. (Vanicchalak, R. 1978, Ketsing, Ae. 1978: 12-13 Thai) Therefore, this period is the pure Thai traditional medical system.

8.1.2 the Period of Challenge from Western medicine or Western Capitalism

Invasions of western medicine in Thailand came with the diffusion of western

capitalism and colonization. It can be divided into two stages. These are (a) the diffusion from European capitalism during the trial to colonize eastern countries, in Krung Si Ayuthaya Period and Early Rattanakosintara Period and (b) the diffusion of American capitalism since the First World War.

(a) The Diffusion of European Capitalism Period

During the 15^{th}-16^{th} century western countries tried to colonize Thailand (Siam then) but failed. Portuguese contacted Thailand with commerce and religious affairs first in King Phra Chairacha Reign (1503) in Krung Si Ayuthaya, followed by Hollander in the reign of King Ekatossarot who introduced western medicine to Thailand. However, western medicine was not well-known in Thai society, it was only confined to foreigners who lived in Thailand and some Thais. France was the most important country that introduced western medicine to Thai people, Thailand had a close relationship with France in the reign of King Narai Maharach (1662). Mr. Lambert de Lamotte and the missionaries propagated Christianity as well as prescribed western medicine free of charge to patients. They also initiated the king to settle the Ayutahaya Hospital like the Obital de Kier Hospital in Paris. By the year 1679, this hospital could admit 50-90 patients. Three years later this hospital performed first surgical treatment in Thailand by a physician from Switzerland.

Increasing favor of western medicine and foreigners induced fearfulness to Thai people and some noblemen. Until late in the reign of King Narai Maharach, the idea to resist the western occurred, there was resistance to western medicine and furthermore, there was an act that forbid Thai women marrying western men. The punishment for violating this act was execution and confiscation of property. (Barai, 1999: 5 Thai) From this challenge, the Thai traditional medical system collected a unite pharmacopoeia, which was "the Osoth Phra Narai Pharmacopoeia". The Thai traditional medical system became strong again. (Khumthong, N.: 1984 Thai)

Relationships between Thai and the west worsened since the reign of King Prasatthong of Krung Si Ayuthaya, the western medicine was the same. The

relationship terminated in the reign of King Phetracha, the western people and missionaries were forced out of Thailand. There was no communications between Thailand and western countries until the early Rattanakosintara Period.

(b) Diffusion of American Capitalism

In the reign of King Rama III, Thailand had relationships with western countries again. The first foreigners who came to Thailand were missionaries from the USA. They also brought the western medical system to Thailand. The most important person was Dr. Dan Beach Bradley, He was a physician an also at last he became a missionary. Dr. Dan Beach Bradley has opportunity to practice in the Royal Palace, so western medicine was popular in the court and among the royalty. The first coming of western medicine was to propagate Christianity as the European missionaries in Krung Si Ayuthaya period. We can see this in Dr. Bradley's note.

"4 September 1835: there were 100 patients, let them visit the priest and read the bible before prescribing any drugs. This is to make them believe that it is the miracle of God. By believing that they have been cured by the priest, they will more believe in God." (Uhunhanand, M. 1962: 540 Thai)

Western medicine was not popular among laypersons until an accident at Prayunvongsavat Temple, a Buddhist monk was injured from a fire. Dr. Bradley operated on his arm with good result. By this experience, laypersons began admiring western medicine. In the reign of King Rama IV, he allowed Dr. Samuael Reynold House and his allied missionaries to propagate Christianity and treat the patients with western medicine in rural provinces. It was the starting point for laypersons in rural areas to know western medicine.

We will see that at first, western medicine was closely related to the royalty and noblemen before distribution to laypersons. Furthermore, the kings since King Rama III hired foreign physician to practice in the Royal Doctor Division (Krom Moh Luang). It led to dissatisfaction with Thai traditional physicians who thy tried to unite. By this unity, the new Thai traditional pharmacopoeia was published. It was " the

Royal Thai Pharmacopoeia (Tam-ra-paet-sat-song-kraoh-cha-bab-luang)". When the dissatisfaction was more severe because the missionaries used the treatment to propagate their religion. Thai government prohibited Thai people to receive every thing from missionaries. (Uhunhanand, M. 1962: 538 Thai Ibid)

The bifurcation between Thai traditional and western medical system in Thailand, overgrew the former, was when cholera spread in the year 1882. Prince Siriraj Kakutphan, the first heir to the throne, died from the disease. His father, King Rama V, gave royal permission to the committee to built "Siriraj Hospital' from the remnants of the royal crematorium in order to cure his people by western medicine on 6 April 1887. To establish the hospital the king appointed Dr. Peter Gavain, a foreign physician, to be the committee and take care of patients by western medicine. Early stages of Siriraj Hospital, witnessed both Thai traditional medicine and western medicine in the hospital. The physician, who was the Chief Medical Officer of Thai tradition medicine, was Phraya Prasert Thamrong (Noo) while the Chief Medical Officer of western medicine was Dr. Peter Gavain. It was because the western educated physicians were insufficient to practice in official hours.

Managing of Siriraj Hospital in the early period was not easy; there were several debates between Thai traditional and western medicine and also in setting up "Paetthayakorn Medical School", the first medical school of Thailand by the year 1889. Teaching the science of Thai traditional medicine along with western medical science in this medical school was not from the idea to promote traditional medicine but because at that time western drugs were rarely available. We can see that the traditional medicine teaching was about 2-3years after the western medical science. Prince Chainat Narainthorn had said this: "Because western drugs are not available in rural provinces, so the physicians feel unhappy to cure the patients. If they know how to use any herb, they can cure them because the herb can be found everywhere." (Prince Chainat Narainthorn, 1950: 5-6 Thai)

The contrast between traditional and western medicine increased in severity; most medical students refused to study traditional medicine because it was difficult to

remember and the learning methods were not systematical. Meanwhile teaching western science was improving; the traditional medicine looked inferior. The medical school concluded traditional medicine learning by the year 1913 because there was no spare time for it in the curriculum after using the Pennsylvania University curriculum. Dr George B. Mc Farland (Phra Artwithayakhom) expanded medical education from a two year curriculum to four, five and six year curriculum by the years 1903, 1913 and 1914 respectively. Medical students learned basic medical sciences in the first first years and learn medical treatment in the other two years. Therefore, time for learning western medical sciences left insufficient time to learn traditional medicine. However, it is not the real cause that traditional medicine learning was concluded, but by politics as Prince Chainat Narainthorn said:

> "It is a good rationale to teach traditional medicine for medical students how to use traditional drugs but it is useless. Traditional medicine is not compatible with western medicine, the medical students are confused and lose time to study it... I have known the usefulness of Thai traditional drugs but I think that it is better to let the physicians learn by themselves after graduation (Prince Chainat Narainthorn, 1950: 5-6 Thai)

After that, Thai medical system was only a western medical system. The medical knowledge was confined to the medical schools, hospitals, and medical professional society. Other systems of health care such as Thai traditional medical care, poplar sector health care and folk sector health care are classified as quack cures or illegal without scientific approval. The medical profession is the controller of these medical systems. Therefore, the western type of medical system in Thailand grew rapidly.

Thailand accepted the western style system although Thailand has never been a colony. Thailand has also neglected theirs own medical system unlike the Republic of China that adapts western medicine to their Chinese medicine. The great important change of the Thai medical system is when Thailand accepted grants from the Rockefeller Foundation, an important American capital agency. The foundation not only advised Thailand to reform the medical system, medical schools, hospital management and public health service but also sent some physician to Thailand to

help reform for several years. Thus, American medical systems dominated Thai medical systems so as to copy from the American medical system.

Thai medical systems were diminished by western medicine in the sense of policy makers because other medical systems were declared illegal. However, they could not provide it equally to the rural areas because western medical system consumes high costs in personnel training, hospital establishment, medical equipment, etc. Besides, the public sector cannot provide it, people must pay higher costs for health care and lose self-help facility. Sometimes they are victims of quacks known as "injection doctor (Moh Cheed Ya)" (Loechai Srignoenyuang, L., Uppayokin, P. 1990: 66-67 Thai)

8.1.3 The Period of Complete Domination of Western Medicine over Thai Medical System

The Thai medical system completely turned to western style medical system after the Rockefeller Foundation, which had invited by missionaries to eradicate hookworm in Thailand, proposed to the head office in New York to help medical education reformation in Thailand. After several conferences between the Thai government and the foundation, the first contract was signed on 9 December 1922. During nine years, the foundation changed Thai medical system to be full western style medical education or medical care. When the government had debated that it was not suitable for Thai economic status then, the foundation cut off the grant by the year 1931. The foundation returned the grant to Thailand again by the year 1970 to set up the Faculty of Medicine at Ramathibodi Hospital, Mahidol University.

From the grant of the foundation, Thai medical education copied the western style. The latter medical schools also are copied from the former ones, so the western medical system is countrywide. However, it produces dependency of people to medical system due to the miracle of medical knowledge. The distribution of this medical system is not homogeneous especially in rural areas causing physician shortages.

8.2 Physician Shortage in Community Hospitals: the Result of Western Style Medical Development

Due to the acceptance of western medicine the in Thai medical system, the system followed the capitalist means of production. There is a division of labor in physicians towards specialty. Most physicians want to be specialists because specialists are increasingly popular among the laypersons. Being specialists, the physicians do not want to work in rural areas anymore. Moreover, they do not want to practice in Thailand because of the value of training abroad as in the past. Working in towns as specialists makes more money than in the rural areas. Thus, the government uses compulsory methods on the new graduates.

8.2.1 Preference to be Specialists as in the West

Medical education in Thailand resulted from the Rockefeller Foundation in 1922. It was the time during the First World War when Thailand faced a severe economic down turn. Thailand then lost facility to reform medical education by itself, so Thailand received help from the USA. Although western medicine improved the quality but it made diversity among policy makers. One is the physician who takes care of most of the population concerning the quantity is concerned. Another is the physician who takes care of specific diseasestressing the quality of care. This diversity is the major factor of physician shortage later. Finally, the latter has more power than the former and can direct Thai medical system to specialty care. These lead to (1) acceptance of specialty treatment due to the grant of American capital that sent some physicians to train in the USA. (2) Most physicians wish to be popular specialists as the former who trained abroad and became lecturers in medical schools.

We can see that the model of physicians from American capital diffused to the Thai medical system and induce favors western medicine. During that period, Thailand submitted the grant from the foundation due to economic crisis as A.G. Ellis had reported to the Head Office of the Foundation.

"During the latter part of that period have occurred two unforeseen events of striking importance. First, the great financial depression and, second, a radical change in the government of Siam. Neither of these has interrupted or notably interfered with the progress of the plan for improving medical education. It is true the government is unable to make more than appropriations towards its promised building funds during the past three years." (A.G. Ellis, 1935)

Even a letter of Prince Mahidol Na Sonkhla to Chao Phraya Thammasak Montri on 21 May 1922 stated that Thailand had insufficient budget to reform medical education and should receive grants from the foundation.

"The Rockefeller foundation does not work alone. He asks the government to share the cost of medical reformation also. His sides is complete if our sides is not complete; it may be from (1) lack of budget" (Prince Mahidol Na Sonkhla, 2465 in 100 years Siriraj Memorandum, 1988: 105-113 Thai)

Prince Mahidol also stated about the influence of America to other countries as well as Thailand in this letter through analysis of the good and bad effects of receiving the grant from the foundation.

"When we contact with foreigners, if we fail to do something it is very shameful. (2) If we deny the grant, it means that we are so foolish as to not understand the importance of the medical affairs. (3) Although we can develop our medical system without their help, they may insist and reject that it is not as good as which they do. Thus other countries that receive their help may believe them that ours is not good."... When Rockefeller succeed in medical education reformation, they can proclaim the degree of Thai physicians is better than we can do alone because they can contact several countries. Furthermore, if they also approve that our physicians have good quality as those in America and Europe, it is easy for our physician to receive advance training in their countries. By this grant we can save our budget for sending these physicians to go abroad for training." (Prince Mahidol Na Sonkhla, 2465 in 100 years Siriraj Memorandum, 1988: 105-113 Thai Ibid)

We can see that American capital takes advantage when Thailand faces economic crisis to expand the base of its capital in the form of grant to reform several affairs, the medical system also. So, American ideals can be inserted into Thai culture. The capitalist idea also invaded the Thai medical system since then.

8.2.2 Specialists and Physician Shortages in Community Hospital

Many physicians, granted by Rockefeller foundation to train as specialists in America, became lecturers in medical schools in Thailand after medical education reformation. These specialists fully admired western medicine and had the opportunity to manage medical education in Thailand, so specialized learning continually dictated medical education in Thailand.

Due to behavior from the former specialists, who trained from abroad, latter physicians want to follow. Early after medical reformation, most physicians went abroad to train as specialists or even stay in those countries because Thai society praises the physicians who have degrees abroad rather than domestic degrees. Three important professors of Thai medical schools said this.

"I had graduated as a Doctor of Medicine by the year 1935. I look for a chance to go abroad because then whoever can go abroad is Phra Sang Thong. (The leading actor in ancient Thai poetry that his body is golden, which means he is very important: the researcher.) Germany then was a very popular country. Germany has good persons, they are not cheats, not corrupt. The goods with "Made in Germany" were good sales in Thailand then because of high quality... The microscopes used in anatomic laboratory were also made in Germany. Then Germany was the leader in technology. Even American goes to Germany to further training. Therefore, I anxiously wanted to go to Germany. I sympathized with the younger physicians who graduated by the year 1972-1973 and mostly went to America. Going to Germany I didn't care what to learn, first I study Dentistry. Then because of the war, I trained in surgery from general surgery to neurosurgery. When I came back to Thailand, I dreamed to be the most popular surgeon in Thailand. That is the our-self, our-body occurred, I'm more proficient than others. The Buddhist patriarch, the royal families must be my patients. This stubbornness stayed in my mind for a long time but nothing in the world is stable. They are dynamic at all times. I'm the same in the dynamic rule; I'm now very old. Everywhere I go, I'm only an ordinary old man. Because I'm not a Buddhist Saint, I cannot give up every thing, so I admitt being the best physician of the International Surgeon Society of Thailand. Now I think that the surgeons especially the neurosurgeons in medical schools can help only a few people. How can they do more useful work for the society than they used to do? To go down stairs from the specialists to be general practice is easy, not like the general practitioner to be specialists who must fit Thai Medical council's quotas." (Posakrissana, U. Cited by Sinthawanondh, K. 1997: 173 Thai)

There are two other leading professors' notes about the abroad training abroad:

"After the war, technology flooded into the country. To increase skilled personnel, the professor persuaded young physicians to go abroad for training and meant that he supported these young physicians to Change to new one after graduating in the countries he had gone. These physicians were the backbone of the Division of Surgery and Faculty of Medicine at Siriraj hospital. (Limwongse, K. 1997:118 Thai)

"During the Vietnam War, Twenty years ago, America lacked physicians and nurses because (1) the production was nor sufficient (2) the physicians work in the army in Vietnam. America solved the shortage problem by absorbing physicians and nurses from other countries. They eased the ECFMG examination in many countries; even for last year medical students. Whoever, passed the ECFMG examination, can work in America automatically. Thai physicians as well as physicians in other countries prefer working in America because the incomes are higher than in their own countries. Furthermore, they can get the American Board after training which seems more prestigious. If they come back to Thailand to work as government officials, they receive more salary than others do. (Panich, W. Lecture: 8 June 1990 Thai)

The reasons why the government pays attention to physicians who abroad graduated are. (1) The salary of domestic graduation is two $US per month and four $US per month before and after medical education reformation by Rockefeller Foundation. Also, study abroad can advance a professors' salary 20-25 $US* per month (2) while the foreign physicians had higher salaries than Thai physicians. The salary for professors from the foundation is 420-25 $US. (the salaries about sixty years ago, the author)

By this difference, most physicians tried to follow the former physicians as specialists and go abroad instead of working in the country because the domestic incomes are very low, both government salaries or private incomes. By the year 1969, 1,178 physicians out of 5,032 Thai physicians (about 20%) went abroad. Also another 19.9 per cent in the country were inclined to do so. The 50% of physicians, who are training in America, had a tendency to stay in that country forever. (Thanyaphak

* value 1 $US = 40 Bahts

Sophon M.R. in the 3rd Thai Medical Education Conference: 3: 84(1)-84 (18) This is a true external brain drain of physicians.

The government tried to block external brain drain by signing contracts between the government and medical students and forcing them to work in public sectors for three years. The government set up residency training programs in the country for physicians to improve their knowledge. However, this is the way that promotes specialty among the physicians, there are no auxiliary policies to manage the problem. The development of the Thai medical system followed capitalism. The towns have plentiful physicians, while rural areas lack physicians and other resources because physicians leave rural areas to train as specialists and return. Prof. Wichan Phanich called this process "insensible brain drain". This process leads to persistent physician shortages in community hospitals.

"Insensible brain drain occurs continually. It is drained from the rural area to the towns, from districts to provinces, from rural provinces to Bangkok, from general medical care to specialist care. The flow to be specialists in Bangkok is not returned. If it returns, it will be not matter the society. In fact, it is not so. It is good for the Thai Medical Council to continue residency-training programs, because the country needs them. However the medical systems now have problems, it is the major cause of brain drain to the capital city. It must be analyzed seriously and systematically but we cannot do that. The hindrances is the benefit of groups, institutes; so we deny it and say that it does not happen. Either the physicians, the medical schools or the policy makers prefer this situation because they can neglect it and do not lose their public favor." (Phanich, W. Lecture: 8 June 1990)

Preference to be specialist is continuous phenomena. We can see from chapter 7 that almost all physicians entered residency-training programs. Phanich, W. (1990) had said that it resulted from the development of the country that stressed economic development rather than social development. In addition, economic development changes Thai culture to be materialistic, everyone wants to gain more from the society without reciprocation to that society, physicians are also alike. (Phanich, W. Lecture: 8 June 1990 Thai)

The factors that make physicians select to be specialists cannot be explained by demand-supply rules. One important factor that determines the preference for each specialty is higher income. Although there are many physicians in that specialty they can gain high income. Another factor is the hardship of work in that specialty such as neurosurgery, the social needs are very high but the physicians do not enter this specialty.(Soebvongselee, S.1991: 437 Thai) The other factor is the defect of residency-training programs of the Thai Medical Council that eases the quality of physicians to train in some special needs. These physicians do not need practice in the rural areas for three years but can train immediately or with one to two years of compulsory health services. Therefore, some physicians use this way to leave community hospitals to train in their unreal needed specialty. (Chokwiwat, V. 1991: 574 Thai)

Therefore, we can see that western capital has induced the Thai medical system to be a specialist-care medical system. Plentiful specialists are out of proportion. They cannot work in rural areas anymore but want to work in towns. Meanwhile large proportions of the population live in rural areas and want only enough GPs. When physicians opt for a specialist-care medical system, no one sees the importance of the GPs. or the rural people. The medical systems need great reform instead of following the capitalism.

8.3 Domination of Professional Organization and Physician Shortage in Community Hospitals

An important result of medical reformation in western style is the increasing power of medical professions due to specialization. The most powerful ones are the physicians in medical school groups and in large hospital in the public sector. These physicians are able to make health policies and dictate the policies that affect the distribution of physicians to rural areas. The power of medical professions means that they have specific knowledge and specific tasks. The others cannot understand. Therefore, they can manage their own profession. There are medical societies to control each other. Furthermore, they can set up policy about production and

proportion of physicians in each specialty. The most powerful medical society is "the Thai Medical Council". The aims of the Thai Medical Council are to control the practice of physicians, making both health and physician policies. To study the power of medical organizations in policy intervention in physician shortages in community hospitals, we will divide the stages of professional control into two periods. These are (1) the period before the Thai Medical Council establishment and (2) the period after the Thai Medical Council establishment.

8.3.1 The Period before the Thai Medical Council Establishment

Before the establishment of the Thai Medial Council, control and registration of physicians was under the Committee of Medical Registration of the MOPH. This committee was composed of persons from several professions. However, the power of physicians was also very high, especially in the medical school group. They had enough power to debate or propose health policy of the government. These can be seen from the following: (1) they can dictate physician production policy and separate physician production from the MOPH although the MOPH is the largest physician user. (2) They can dictate physician production and the continuous education of physician until now.

Separation of physician production from the MOPH leads to planning inabilities of the MOPH. It was the success of medical professions resulting from the proposal of the Rockefeller Foundation in the year 1922. Dr. A.G. Ellis had noted to the head office that he would separate the medical education from the MOPH although it must take time. This is:

"G. Relation to the Ministry of Public Instruction. Many of our faculty affairs have to be settled by the Minister, as the final head of the University. I can at any time take any major point to the Minister but rarely do this except regarding general policy of medical affairs. The main point regarding University organization is that of taking it out of the Ministry and running it independently. As all other activities are under Ministries, this has been kept in. I believe the question of the finances is the most important one holding up the separation now." (A.G. Ellis, 1935: 29)

We can see that the separation of physician production from the MOPH is also a capitalistic idea. This idea has dominated Thai physicians until it succeeded.

Dictation of physician production over the government policy up to now can be seen from these samples. (1) The physicians were used to debate the government production of "Junior Doctor" until the government gave up this policy. In the past, the government tried to reduce physician shortages in rural areas by physicians who study only two years. This was because at that time Thailand faced an economic problem and low education of Thai people. It was not only a system of medical education of Thailand but the government still had six year medical education. The MOPH and the public accepted this idea but the Medical Society of Siam* and medical alumni of the University fought this idea violently. This idea was canceled at last. This can be seen from the note of A.G. Ellis.

"In 1930 - 1931, Professor Zimmerman, a sociologist employed under missionary auspices, came to make an economic survey of Siam. The government gave him helpers and he spent the better part of a year in the country, finally publishing a book giving the results of his investigation. In that he reached the conclusion that the people of the country are too poor to afford first – class modern physicians and in their place, he suggested "junior doctors". These were to be trained for two years in hospitals outside of Bangkok, they were to receive the training of nurses an as much modern medicine as they could absorb in that time. Thousands of these were to be trained and sent out to practice. They were to be self–supporting and to be satisfied with a yearly income of not over TCP. 300 per year. Along with these the present medical school to continue.

This idea was taken up at once, almost bodily by the staff of the Dept. of Public Health, was supported by the campaign of a local newspaper, and by several missionaries. For some three years the "junior doctor", idea was quite the rage. But gradually the opinion of most of the well - trained physicians, including the Medical Association of Siam and the medical alumni of the University, over came this and for the past year or two the idea as such has practically died out; at least two years training is not seriously advocated." (A.G. Ellis, 1935: 39)

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* **Medical Association of Siam or Phaet Thaya Sama Khom** was established on 25 October 1923 by ten leaders physicians in Thailand. After six years of establishment, it could not work with medical knowledge; it was combined with the medical alumni of the university on 2 February 1933.

The Medical Alumni of the University or Medical Society of Chulalongkorn University was established on 15 March 1927 by Luang Chalerm Khamphiraevej and Luang Chet Waithayakorn from Siriraj Medical School, Chulalongkorn University.

Another sample is the third medical conference of Thailand at Ramathibodi Hospital. The policy makers in the MOPH noticed that the physicians were not enough because it took six years education. They proposed a second class doctor that took only four years education; then sent these doctors to work in rural areas. These physicians in the medical schools rejected this idea suddenly and continually until it was canceled. The reason of rejection was:

> "There is evidence that the second class physicians in some countries are not satisfied with their status but try to move upward by examination to be physicians. It consumes higher cost than teaching medical students from the first year and the quality of these doctors may be lower than the six year graduates." (Vejchachiva, A. 1971: 79 Thai)

Someone did not strongly reject this idea but proposed not to call them "doctor or physician". They said that they were not doctors if everyone continually called them "doctors"; they would think that they were real doctors (Kitkusol, D. 1972: 29-35 in Thai) Finally this idea was abolished.

8.3.2 The Period after theThai Medical Council Establishment

Now, the Thai Medical Council is the professional organization that manages the health policy in Thailand, being counselor in health planning for the government. Therefore, it must be the representative of every physician and makes health policy for all not for their group. Practically the members of the Council divide into two to three groups. The first is the physicians from medical schools, all of them are specialists. The second is the physicians from the MOPH that can be divided in two sub-groups. The first sub-group is the physicians in generaland regional hospitals; most of them are specialists. The second sub-group is the physicians in community hospital or who used to work in community hospitals, most of them are general practitioners. Thus, the basis of the committee is the dictator of health policies such as entry barrier, medical education and selection, criteria for residency training and incentive payment.

The movement to establish the Thai Medical Council appeared before 1944 but it was suppressed for a while. Until 23 July 1966, the resolution of the

4th conference of administrative committee proposed to have an act on the Thai Medical Council. The purpose of this act was to control the ethic of the health personnel and qualify health personnel; but to register physicians was still the duty of the MOPH. (Uengpraphan, W. 1973: 272 Thai) Furthermore, another aim was to make physicians control each other universally (Niyomsen, S. cited by Uengpraphan, W. 1973: 272 Thai.) instead of using the former medical council of the MOPH that has committees of other professions also*. (The former medical council is appointed by the Medical Act 1923, by the year 1936 it was renamed as "the Medical Registration Committee") Because this committee composed of committees from several professions; so the first five conferences of the sub-committee, combined the Act of the Bar Association and the Act of Teacher (1945) to be the Act of Medical Council. In this act, the committee proposed the duty of the council to act as the government official instead of the Civil Service Commission in physician affairs. This extraordinary duty of the council will make all physicians free of the MOPH' s administration. (Draft of the Act of Medical Council from the 9th conference (1966) on 27 December 1996 cited by Uengpraphan, V. 1973: 276) However, the Minister of the MOPH did not that and he said it is the government obligation.

The MOPH has approved to let the council control each other in registration of the license, to look after the ethics of physicians but does not agree with the council to overlap the management of the government office as Office of the Civil Service Commission. They have legal authority to do this, not the council. (The letter from the Minister of the MOPH to the chair of the committee No.0100/880 on 23 February 1967 cited by Uengpraphan, V. 1973: 277-278 in Thai)

Even when the Medical council already establish, Rujirawonse, P., the administrative director of education and public health affairs of the Coup who was a leader in the government then, still did not agree to have the Medical Council. He wrote this in the missive in the first Journal of Thai Medical Council that:

* The former "Medical Council" was established by the Act of Medical Practice 1923. It was composed of the director general of Department of Public Health, the Chairman; the representatives from Ministry of Interior, Ministry of Education, Department of Medical and Nurse of the Navy, Chulalongkorn University, Thai Red Cross Society, the Medical Association of Siam, and two to seven invited committees.

"Although the Council can relieve the government jobs about physicians in education, research, registration and public health promotion, these obligation ought to belong to the government." (Rujirawonse, P. 1972: 1 Thai)

We can see that even the government from the coup does not agree to establish the council, finally the medical profession could that. This means that the specialization of knowledge is very important and gives them autonomy. This autonomy leads to unbalance policies to solve physician shortages in rural areas or it is the problem itself because the council tends to promote specialization of medical practice. This leads to only using new graduates in community hospitals. The experienced ones are absorbed by towns in residency-training program of the council.

a) Domination of Profession: the Case of Using Only New Graduates in Community Hospitals

One major factor of the physician shortage in community hospitals is other physicians, except the compulsory physicians, do not take responsibility. It results from the policies that do not force them to do so and the policy makers do not want to do so. The important policy makers are the members of the Thai Medical Council, more than half of them are senior physicians. Therefore, all policies deal only with new graduates not senior. Thus, the structure of the medical council is important to policy making.

The structure of the Thai Medical Council affects policy making because of the quality of its committee, as follows:

(1) By the 1968 Act of Medical Practice, more than half of the committee were appointed from physicians who are executive leaders of health units 13 persons; the other 10 members were from election. The 13 from appointing are the Permanent Secretary of the MOPH, the Dean of University of Medical Sciences, the director of Medical Department of the Military, the director of Medical Department of the Navy, the director of Medical Department of the Air Force, Chief of Medical Division,

Police Department, and Deans of Faculties of Medicine of other universities. (Rajchakitchanubeksa, 1969: 711-713 Thai) To vote on any policy, the votes must be more than a half of the committee. Therefore, in any conference the executives in larger health units win the votes. The votes and the ideas of smaller health units will be less important. Thus, the activities of the council are not publicized to most physicians. A honorary chairman of the council, who was not a physician and a physician who was one of the members, said "the members or the people do not know what the committee are doing and what the work of the council is. (Rujirawonse, P. 1972: 1 in Thai Ibid; Hatthirat, S.1972: 857 in Thai) However, The committee had ideas for centralization because they had said that it was enough for the general members to know the message from the regular Journal of the Thai Medical Council. (Uengpraphan, W. 1973: 871 in Thai)

Until now, the members of the council seem less important, there are no general conferences for the member. To propose ideas, to follow the activities of the committee is only by reading and sending message to the editor of the Journal of the Thai Medical Council as in the past.

2) By the 1982 Act of Medical Practice, the members from appointment are equal to those from election. The quality of the committee from appointment is also the same as the former. Therefore, the members who are from the central health facilities as the MOPH and the universities, are more than the smaller health facilities hospitals in rural areas such as community, provincial or regional hospitals. Thus, the votes of the committee from the health facilities in the center are greater than the votes from the committee from the peripheral health facilities. Although Chokwiwat, W. (2000) has said that in fact the members from appointment are not active, the actives workers are from election because they must care for their electoral votes. However some policies, when proposed, cannot pass the major votes of the committee if they do not agree with that policy. (Chokwiwat, W., 2000 interview)

The powerful votes are of the members from the universities. We can see from their rejection to new medical schools and private medical schools established by

the year 1984 and 1990 respectively. These projects were rejected because they affected the power of the existing medical schools directly. Although they cited, that it would draw physicians from rural areas to medical school. Meanwhile the policies that do not effect their power are not changed as the policy to send new graduates to rural practice. They do not try to use any policy to send the experienced one to rural practice instead. Hatthirat, S. (1972) had noticed this to the secretary general of the council. "Many committees tend to make the policy that forces the junior physicians to go to practice in rural areas. Although, they know that rural areas lack medical equipment and it is not suitable for the junior because to practice well needs good experience, skill, and knowledge." (Hatthirat, S.1972: 356 Thai) Meanwhile the answer of the secretary general is that it is the society needs but did not answer the question on how to send the experienced physicians to rural areas. (Uengpraphan, W. 1973: 870 in Thai Ibid.)

Therefore, we can say that the structure of the medical council affects the policy of distribution of physicians directly because they try to use only this policy for new graduates. Furthermore, it happens for a long time.

b) Power Preservation of the Thai Medical Council: the Case of Medical Education and Continuous Medical Education

An important factor that affects the distribution of physicians to rural areas is the role of medical council in medical education and continuous medical training or the residency training. The role on medical education is not a severe problem although the council can debate the establishment of both new public and private medical schools. It is because we have mentioned in the chapter V and VI that increasing physician production is not the way to solve physician shortage in rural area, unless the total medical system is changed. The role of continuous training is very important because it induces over-specialization to the point that physicians do not want to practice in rural areas. Therefore, we will show why the council effects physician shortage in this section.

The debates on new public and private medical schools of the medical council are in 1984 and 1990. These are the Faculty of Medicine of Si Nakarintarawirot University and Rangsit University. The reasons of these debates are (1) it causes the lecturers in medical school not to be distributed to rural areas (Thai Medical Council, 1984: 27 Thai). (2) It is opposite the policy to distribute physicians to rural areas because it will absorb physicians from rural to central areas. (Thai Medical Council, 1984: 25,27 Thai) (3) The physicians will drain to private sectors in the case of private medical schools. (Thai Medical Council, 1990: 15-46 Thai)

However, the real cause of their debate is that establishing new medical schools uses many lectures. They will lose personnel to work in their offices and they will loss their power of control because the committee by appointment will increase by law. Therefore, we will explore the structure of the committee to answer this. (1) The members appointed by their positions: these committees are composed of physicians who are (a) permanent secretary of the MOPH, (b) director general of Department of Medical Services, (c) director general of Department of Health, (d) directors of department of medical services of the military, of the Air Force and the Navy; and (e) Deans of 11 Faculties of Medicine of the universities in Thailand. Therefore, we can see that 11 out of 18 members from appointment are from the medical schools. The members from the MOPH are only three and other health facilities are four persons, less votes than those of the medical schools. (2) The members from election from 1970-1999 also are from the medical schools more than from the MOPH. This is exceptional for the three batches during 1987-1995 that the members from the MOPH were more than those members from medical schools. These years were the decade of the community hospitals. Several strategies were tried to promote community hospitals. (Table 8.2 in appendix)

When the members from appointment are combined with those from election, the numbers who are physicians from medical schools out numbers physicians the MOPH. Then the health policies are dictated to be medical treatment rather than preventive care, the major role of the MOPH because the roles of the physicians in

medical schools are treatment with high technology, medical research, and teaching. This reason also affects the policy to solve physicians shortages in rural areas.

The medical council is also the legal counselor of the government in medical services and public health affairs by the Act of Medical Practice 1982. Therefore, they can propose health policies to the government. If the committee's interestes the policy will be made. From 1987 to 1995, that the committees from the Rural Doctor Society were more than those committees from medical schools but after that period, there were several attempts to diminish them; we can see this evidence from the election posters. It is not only the attempt of the medical schools but it is the attempt of the provincial and regional hospital also. Finally, the physicians from the Rural Doctor Society lost the votes in the latter election. These affect community hospitals very much because the later policies do not support community hospitals.

It was a countrywide phenomenon that the public health sector lost physicians to the private sector during the economic boom of 1989-1993. However, community hospitals faced more severe problems than other parts because physicians in community hospitals were few. In contrast, the council by the year 1994 was not aware the community should have physicians or not. A policy absorbs the first year compulsory physicians to practice in larger hospitals as provincial hospitals, regional hospitals or even in medical schools under the umbrella of the " the Project to Increase Skills of the First Year Compulsory physicians". This policy had been used urgently instead of delaying for the rural population. Therefore, community hospitals faced a crisis of having no physicians by 1995. (Around Theves Palace: from the MOPH's monthly conference, 1993: 110 in Thai Ibid) Furthermore, by 1996 and 1997 after training in this project about 20% of physicians did not go to practice in community hospitals. (Around Theves Palace: from the MOPH's monthly conference, 1997: 63 in Thai) The director of Phra Borommarajchanok Institute has proposed to the MOPH on 18 February 1997 to revise this project because it has severe bad effects to community hospitals but there was no change. (Around Theves Palace: from the MOPH's monthly conference, 1997:59 Thai

We can see that the medical council, whose major roles are, to develop, control and make heath policies, trend to support more specialist treatment. Community hospitals, which are not suitable for specialists, are ignored. Furthermore, most physicians want to be specialists as the direction of specialist care of the medical council and they deny community hospitals. Furthermore, the policies created by the medical council tend to support specialist treatments. When the public sector cannot provide high specialist equipment, they support the private sector to do that to support work as highly specialists since the fouthr National Economic and Social Development Plan. Then the private hospitals in the Thai medical system grow without direction and absorb most physicians in the public sector into private hospitals, leading to a lack in physicians in rural areas. We will discuss this idea in the next section.

c.) Promotion of Specialist Care: Uncontrollable Expansion of Private Hospitals and the Physician Shortage in Community Hospitals

Expansion of private hospitals results from uncontrollable expansion of specialists and policies. Most physicians will be absorbed as specialists in private hospital due to high income. The brain drain of physicians from public to private sectors are both temporary and permanent. Both temporary and permanent brain drain affects the physicians in community hospitals.

In a capitalist society, the rural areas are ignored. Furthermore health care services are not merit or public goods anymore, it is the goods that anyone can buy as other goods. We can see this (1) in the concept of the fourth National Public Health Development Plan (1997-1981) about private hospitals. This plan noted that the medical services provide by the government is not enough in urban and rural areas. The physicians also were insufficient during this plan but they did not try to distribute both resources to rural areas. They tried to use the private sector to serve the urban areas without the idea that they would absorb the insufficient resources. They supported the private sector by reducing taxes for imported medical equipment as well as granting them. (The 4th National Public Health Development 1997-1981, 41 Thai

Ibid) (2) From the invitation of the Board of Investment, it was called the medical systems as "Health Industry" as:

> "Opportunities exist in almost all segments of the industry, including hospital construction, health care products, and pharmaceuticals. The government strongly supports investment in these industries by offering both tax-based and non - tax incentive." (BOI: Available, http://www.boi.go.th/ investview/rev612.html [September 1999])

Furthermore, one popular physician in Thailand said that the Thai medical system must adapt itself to be a full health industry and fully health business because Thailand is a member of World Trade Organization. Every goods as well as Health care, physicians, nurses and pharmacists must be free trade. (Suwanwela, C. 1999: 7 Thai)

When the governments promote private hospitals, it seems that they try to increase medical services for the people but in contrast, it induces less opportunity for the rural areas. The MOPH realizes that rural areas lacked physicians during that plan. Therefore, it is impossible to increase the physicians in private sector meanwhile the public sector lacks physician in the total situation of the country. Furthermore, when private hospitals are business, it is necessary for them to promote themselves with super-specialists or higher technological equipment instead of the GPs. Tangkanasing, S. Et al. (1983) had said in their research. (Tangkanasing, S. et al., 1983: 172 Thai)

Rapidly expansion of private hospitals has induced increasing favor towards specialists of general physicians due to higher incomes. It also needs large amounts of physicians to practice in their hospitals. The data since the Fourth National Economic and Social Development Plan shows that the private hospital has increased 291 hospitals with 8,794 beds by the year 1981* to 430 hospitals with 34,009 beds by the year 1997†. It means that the hospital increased one and a half fold while beds increased three fold in 16 years. Therefore the demands of physicians increased also;

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* The data of the year 1981 are from Public Health Statistics.

† The data of the year 1997 are from the National Statistical Office's census of private hospitals and private clinics: 1997

the data show that full time physicians in private hospitals increase from 646 persons to 3,606 persons by the year 1981 and 1997 respectively. (Table 8.3 in appendix)

When comparing the number of 3,606 full-time physicians in private hospitals with the number of 22,730 total physicians, registered with the Thai Medical Council. The physicians working in private hospitals are not only full-time physicians but also part-time physicians. These part-time physicians work in the public hospitals also; the number of part-time physician by the year 1997 was 9,575 physicians. Therefore, there are 13,181 out of 22,730 physicians or 59 per cent working in private hospitals if we compare with the physicians that are now practicing (excluding those retired from the medical profession, too old to work); the number is 11,381 out of 16,571 physicians, about 79.5 percent. So one can say that almost all physicians work in private hospitals. Therefore, they want to work in urban not the rural areas.

While the demand of physicians in private hospitals by the year 1997-1998 was 13,181 physicians; the specialists registered in Thailand are only 12,476 (not include GPs specialists). There is competition between private hospitals to seize specialists in their hospitals. We can see this by advertisement in the newspapers from 1993 to 1995. In contrary, the advertisement disappeared during the economic down turn by the year 1997.

The researcher has explored the advertisements for physician requirement in the Matichon newspaper from January to March 1992-1998 because (1) this period of each year, the contracts of the compulsory physicians are nearly over. The physicians in residency training programs nearly graduate. Therefore, it is the time for changing the workplaces. (2) From 1992 to 1988, Thailand faced both economic boom and economic crisis.

After analyzing the data, the results are (1) the demands of physicians in private hospitals directly vary to the economic expansion. If the economy expand, the demands increase. In contrast, the demands decrease if the economic collapses. The physicians needed in those periods are 152, 383, 549, 358, 342 during the economic

boom of the year 1992, 1993, 1994, 1995, and 1996 respectively. Then, the demands rapidly decreased to 273, 288 during the economic turn down turn of the year 1997 and 1998 respectively. (Graph 8.1 in appendix) The demand of physicians during the economic boom and crisis are significantly different. (t =7.309 df=6 sig=. 000) However, the demands will increase up to four fold because the data are only for a quarter of each year. (2) Most private hospitals are in the Central region, especially in Bangkok; therefore, physicians are absorbed to the center as other resources. It is a central tendency of capitalism. Among 2,345 advertisements, 2,211 times are of hospitals in Central region, 24, 36, 56, 18 times are of hospitals in North, Northeastern, Southern and Eastern regions respectively. (Table 8.4 in appendix) (4) Private hospitals induce demands for specialists. The most required specialties are internal medicine, surgery, Ob-gyn, and pediatrics, while GPs is not required. (Table8.5, graph 8.2 in appendix)

Furthermore, the data from other sources also shows that expansion of private hospitals varies with economic expansion. These are (5) there are new private hospitals established during the economic boom by the year 1981-1992. (Table 8.6, graph 8.3 in appendix) Until 1997, there is an under-utilization of beds in private hospitals up to 300percent.(TheMOPH,Available:http://www.moph.go.th/ops/hiu/Information_index.html[September 1999]) the numbers of new private hospitals significantly correlate to the economic expansion. (t = 9.119,df =4, sig= .001)

In contrast, during the economic crisis 1996-1998, private hospitals collapsed up to 35 percent. (the MOPH, Available: http://www.moph.go.th/ ops/hiu/information _index.html [September1999]) (6) Under utilized medical equipment that was imported during economic boom were on sale during the economic crisis, 1996-1998. This is "the sale-market of unused second-hand medical equipment phenomenon" for private hospitals. The broker of this market is the "Advanced Medical System Co. Ltd. from medical equipment as small as the triangular rod used in the laboratory cost only $US 0.25 up to the CT scan that costs $US 75,000. This market has expanded rapidly and is well known since there are up to over 7 times. (Advance Medical System, 2542 letter) (7) There are reverse brain drains of physicians from private to public sector

because many private hospitals have collapsed. However, these physicians also want to practice in the vicinity of Bangkok such as Nonthaburi, Chon Buri, Nakhon Pathom, Suphan Buri, Ratchaburi and so on. The MOPH accepted only to let them practice in the hospitals where they cannot select themselves. (Around Theves Palace: from the MOPH's monthly conference, 1997:63 Thai Ibid.)

The reasons for reverse brain drain during the economic crisis are (1) private hospitals laid off physicians who were not specialists as the second and third year compulsory physicians who resigned from the public sector. (2) The specialists' incomes were reduced and the specialists had to work as GPs in private hospitals. These are the capitalistic ways that considers loss and benefit more than merit. (Phrom rab moh tok gnan, Matichon, 5 July 1999: 19 in Thai)

By the above reasons we can say that the expansion of private hospitals results from capitalism because it directly varies to economic change. Furthermore, it induces insensible brain drain from the public sector and it is a boost for specialists. Meanwhile the medical council or the MOPH does not control them but lets them affect the community hospitals directly.

Conclusion

In the last two chapters, we can see that the medical profession has intervened in both state and the MOPH policy. However, medical professionals are not freely developed by its system. It also is under the umbrella of capitalism, the main theme of Thai economic development in several aspects. Medical professionalism is also dictated by the capitalist theme since undergraduate medical education, continuous medical education, medical care and so on. The turning point of this evidence was when the Rockefeller Foundation entered the Thai medical system and changed to pure western medical pattern. Physicians became professional due to their advance knowledge until they had autonomy in the profession.

The autonomy of their profession, led to power in all levels of policy making. When most policy makers are highly specialists, policies are affect both psychological and sociological factors of the latter physicians. Most physicians want to be specialists rather than GPs, when the community hospitals cannot serve these physicians; they leave community hospitals to larger hospitals in towns.

Therefore, to solve the physicians shortage, changing the medical profession organization and medical professional levels are needed. Reformation of the medical system is necessary otherwise; physician shortages in rural areas will persist.

CHAPTER IX

CONCLUSION

9.1 Conclusion

We can conclude from the reviewed documents that the physician shortage in community hospitals in Thailand results from medical professionalism domination over the health policy by these factors:

9.1.1 Domination over the state health policy: Thailand has developed to be a capitalistic state and the governments are composed of new ruling class or capitalists after the 1932 revolution. In chapter 6, the evidences show background of past governments and the way of power achievement. Because most of them were unstable, they concerned only their security and capitalist base. Therefore, they interested only in the ministries and policies that benefit them or their allies and could support their stability, not public policy. So, the MOPH was second class ministry in politicians' view because they could not used this ministry to be their political bases.

Public health policies are one type of public policies, which are not useful for accumulating their capital. The politicians let the government officials in the MOPH and universities, most were physicians, be real policy makers and led to incoordination among different health facilities. The National Health Policy such as health care, physician production, distribution and specialist training was directed to medical professional interest not for public interest. The methods used to solve physician shortage in rural areas were only the methods that did not intervene the existing professional system such as increasing production of physicians by establishment new medical schools, sending newly graduated physicians to work in community hospitals without experienced ones' responsibility.

Because most ministers in past governments and health policy makers were bureaucrats, the public health policies are under the umbrella of routine ideas of bureaucracy, which prefer using routine power and authority. The easiest strategies are repeatedly using power and authority to send new graduates to work in rural areas. These methods were used for a long period since the First National Economic Development plan until now for over 30 years.

9.1.2 Domination over the MOPH policy: the past governments established the MOPH because of the national insecurity during that period. They did not interest to do for the people sake, so they led physicians in the MOPH work alone. Because most physicians in the MOPH educated in western style, Thai medical system was dominated by western medical systems and followed western professionalism.

Western medicine could dictate Thai medicine to be specialist treatment instead of prevention even in the MOPH. There were several debates between health workers in treatment and preventive model in the history of the MOPH. The preventive model could dominate the treatment line finally and affected the structure of the MOPH health facilities. The health facilities that deal more with prevention in the MOPH, as the community hospitals, become less important because the structures of the MOPH do not support them. In contrast, the structures strongly support the specialists over GPs and lead to physician favorable to be specialists, and work in large hospitals instead of working as GPs in community hospitals.

High specialist development of medical systems contradicts the actual need of the nation for many GPs. Furthermore, it induces dual health policy, the first is to distribute health accessibility to the people and the second is to promote private hospitals. The specialists have more votes in policy making among the MOPH, the medical council and the universities. Therefore, the policies supporting specialists are more important than those supporting GPs. hence; private hospital expansion is not controlled even when community hospitals lack physicians.

Furthermore, inflexible bureaucratic regulations are catalysts that make wide gap between community hospitals and large hospitals of the MOPH, specialist and GPs work. This catalyst is incentive payment such as non-official hour payment and non-private practice allowance that does not differentiate by different works between rural and urban work. It has direct negative affect to community hospitals because it widens gap between rural and urban physicians.

Apart from incentive payments, the MOPH tried to use specialist-training program to induce favorable in community hospital works. Each year the quotas of specialist training were nearly equal to the numbers of physicians who graduated three year ago, this means nearly all physician could enter specialist training programs, no space for GP training. Physicians in community hospitals are push from rural areas by this mechanism also. Furthermore, there are evidences that professionalism could dominate the provincial authority also in the case of physician lackage in the southern provinces by the year 1994.

9.1.3 Domination over the same professions: Thai medical system imitated western medicine after the Rockefeller Foundation's support and led to advance medical knowledge. High specialization from advance knowledge made medical professions form a powerful medical organization called the "Thai Medical Council". This organization could propose or debate either state or the MOPH policies because most members were specialists from the universities, not from the MOPH; its structure allowed being that.

Medical professional has autonomy in policy making, medical student selection, resident selection according to their specialty interest and development without intervention from society. There is no change in medical student selection from the past, mostly the students from the high opportunity families in bif cities can pass the entrance examination. This is a reason why the physicians prefer working in towns rather than rural areas.

There were several attemps to change method of medical student selection such as the Rural Recruitment and Training Project but the medical schools did not prefer this program. The program was given up although the physicians graduated from this program remained work in rural area more than physicians from entrance examination. Later, the MOPH tried to establish its own medical schools, the professionalism could debate it until it was only collaborative project.

Because most policy makers are specialists, the policies were confined within the professional ideas that try to support specialist in rural areas with the expectation that by allowing them to train specialists, they would prolong work in rural areas, especially in the community hospitals. In contrast, these specialists also wanted to work in the towns after residency training. Furthermore, the policy makers did not try to create any policy that affects the existing medical system; they used only the policy for junior physicians.

To manage the shortage of physicians in rural health facilities such as community hospitals, new strategy must be created. Former National Health System must be reformed to New National Health System, the power of medical professions must be reallocated, and distribution of power to the rural and the consumers must be done to strengthen the local health system. It will be discussed in the next part of this chapter.

9.2 Discussion

There are some arguments to this study; these are (1) the extreme capitalistic state such as the USA.has paid high attention in health policy. The example is the 1994, Health Security Plan, of the President Bill Clinton Government. The Clinton Government tried to reform the national health policy to expand the health care coverage to all American people and used this plan in the president election campaign by the year 1992 (2) this study does not forecast the future demand of physicians and (3) this study does not mention public-private mixed health policy. Next section will explain and debate those arguments.

(1) In contrast to the first argument, there were many debates on the argument like this in the US academic and media that it was the policy used to debate with George Bush from the Republican Party in the president election. The Democrat Party tried to propose new strategy that did not have in the past policy of the Republican Party such as health security policy because the Republican thought that the economy as well as Health care services is laissez-faire* They successfully made the case that Republicans' "laissez-faire" approach to the economy was not enough. More government intervention and regulation, especially in the area of health care† and the environment, were necessary (Why Clinton won in 1992, 2000:1). Some Democrats, such as Gephardt, R.A.had indicated recently that they would rather defer decisions on Medicare in order to use the issue in the year 2000 election campaigns (Golstein, A. 1999: 2).

The past USA governments claimed that their medical system represents their nation at its best, pioneering in the most noble of human pursuits, the healing of the sick. It is the result of five decades of their national investment in research into disease and prevention, training of doctors, nurses and technicians, and construction of hospitals and medical school. However, they found their health care system present them with its gravest challenges. There are health care crisis‡, insurance coverage lost §, policies cancelled, fear of financial ruin, better jobs not taken, endless forms filled out emerge from the past health care system (Heath Security: President's report to the American People, 1992:1-2). The Whitehouse said that Clinton had used this crisis to make hope to their people in the election campaign by the year 1992 and he succeeded (The Whitehouse, 2000: 1-3).

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* An economic doctrine that opposes governmental regulation of or interference in commerce beyond the minimum necessary for a free-enterprise system to operate according to its own economic laws.

† Health care reform by the year 1992 included Medicare, Medicaid, Veterans Health care, Federal Employees Health Benefit Program and Indian Health care.

‡ Despite advance technological based medical system, the USA faced crisis in health care such as rising insecurity, growing complexity, rising costs, decreasing quality, declining choices, and growing irresponsibility in medical care.

§ There are 37 million Americans who lack insurance, 85 percent belong to families that includes an employed adult. Those who work part-time or are self-employed often cannot obtain group coverage.

The policy on health care will not persist if the Republican Party by Bob Dole won the election by the year 2000 because there are many debates on health care issue of the Democrat Party by the Republican senators, group of physicians and health care industries (Morgan, D. 1999: 1-2; Goldstein, A. 1999: 2). Even Senate Minority Leader Bob Dole, R-Kan., the most prominent congressional opponent of the president's plan has attacked the alliances and health care spending limits as harmful governmental intrusions. He said:

"What I and my colleagues refuse to accept, is the destruction of the best health care delivery system in the world.... in the guise of making health care available to all." (Dole, B. cited by Fairhall J. 1994: 1)

Another evidence which show that health care industries and medical professional can introduce into policy making is seen in the Clinton's Details Overhaul Plan for Medicare. This plan has elements that reflect two balancing acts. One is trying to make room for a popular but expensive drugs benefits, the other is trying both to enhance the Health Managing Organization which enroll a small but growing share of Medicare patients and to bolster the traditional fee-for service. (Goldstein, A. 1999: 2)

So we can say that majority of the capitalist state, medical profession is leader in policy making except when the country faces health care crisis; the state just concerns it.

Thailand had developed to be capitalisict state like the USA; the past government did not pay enough intention to the health policy. As discussed in the former chapters, we could see medical professional have potential role in all levels of health policy making. At first, the conceptual framework of this study composed of three independent factors, which are state, the MOPH and the medical professionalism. There are only some interactions between these three factors. By the results of this study the final conceptual framework must be changed. The change is that the medical profession has dominated the state and the MOPH in policy making. (Figure10.1)

(2) This study will not forecast the future need for physicians because there are data that even the countries which can increase their physician supplies until the ratio to population reaches 1:100 to 1: 300 such as the USA, Canada, Norway, Japan still have problems of shortages of general practitioners who are needed in rural and remote areas, and an overcrowding of specialists in towns. These phenomena show that maldistribution is the major problem (read in chapter 1). By this reason the number of physicians is not final solution of good physician distribution, the important factor is the management for good physician distribution.

(3) This study will not propose the mixture of public and private health sectors although this study has mentioned private hospitals are one major cause of external brain drain. This study will propose new type of medical system because medical care system that composes with publica and private sector willproduce double standard medical care. Furthermore, this study will not propose abolishment of compulsory helah services because in capitalistic state in the world system, the rurral areas or periphery needs forced labors unless the distribution of resources is well done.

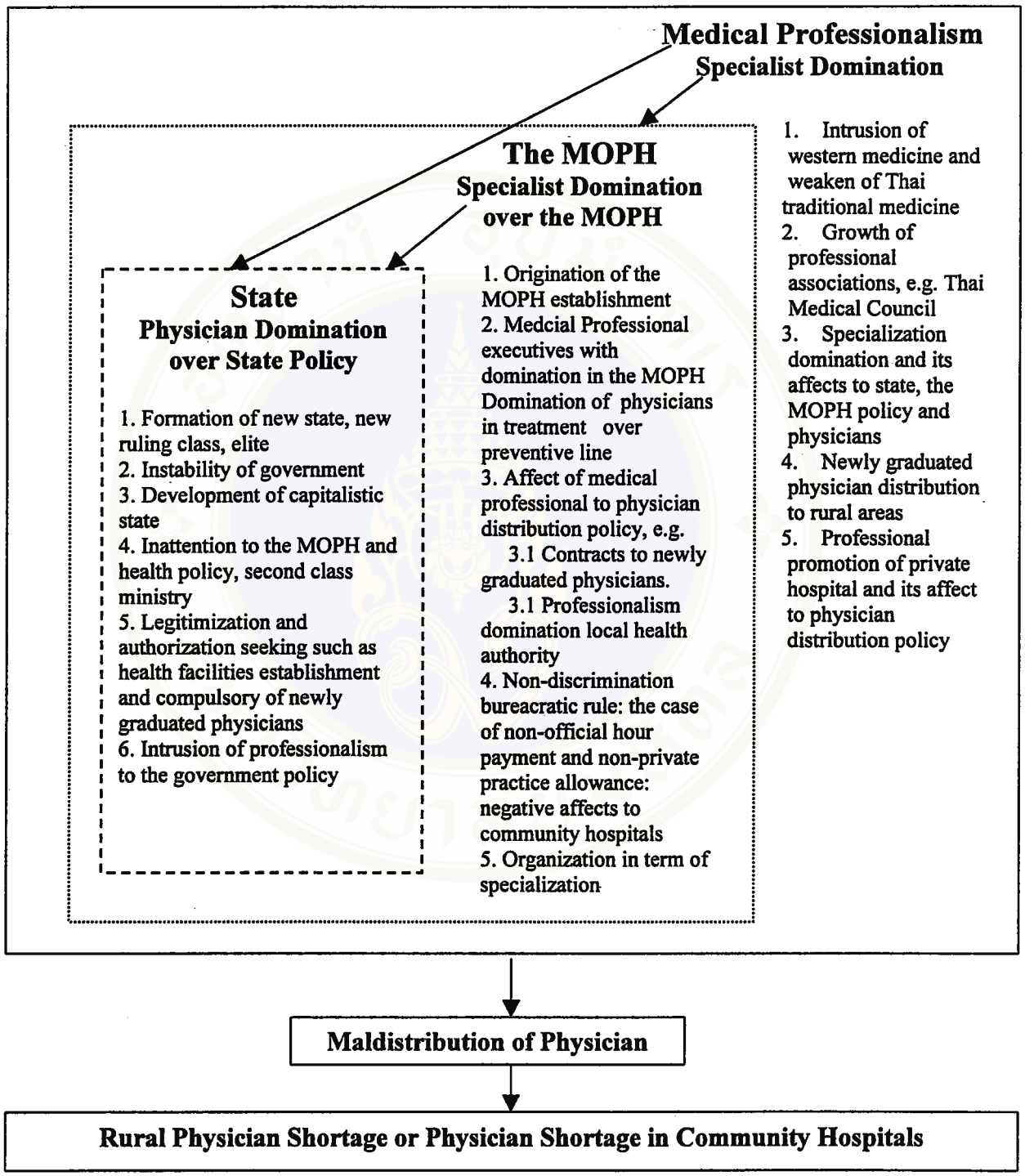

Figure 10.1 New analytical framework: Domination of physician in Thai Medical System and physician shortage in community hospital

9.3 Recommendation

The purpose of this study is changing from using only newly graduated physicians to preserving the experienced ones and increasing number of physicians in community hospitals to solve physician shortage in community hospitals.

The major cause of unequal distribution of physicians found in this study is development of medical profession by capitalistic means and lead to imbalance of medical profession which most are specialists, not GPs and do not prefer practice in rural areas. However, the most important cause is autonomy of medical profession in policy making that is a new structure of power and rigorously affects physician distribution policy and lead to domination of medial profession over state and the MOPH.

There are three factors concerned with rural physician shortage. These three factors concern with domination of physicians. First, government uninterested and the lack of corrective mechanism that would have reduced specialists as their numbers increased gave physician strong, the organized medical specialties had acquire enough power to sensitized young doctors to the value of certification. Second, autonomous and the system for selecting and certifying medical students and specialists without community participation that had developed after accepting the western medical education include no regulation of the size or distribution of the specialties, power to limit on entry into profession, on entry into a specialty and a potential role to create monopoly returns. And, third, ill-defined medical system widened gap between GPs and specialists. The relation between them remained loosely defined. Patient could go directly to specialists without the mediation of the GPs that made high returns to specialty practices. The higher income enjoyed by specialists, compared to GPs and also students in medical school could plainly observe how GPs were treated; most physicians did not want to be GPs especially in rural areas.

Managing the physician shortage in community hospitals or in rural areas, the strategies used have to direct to the three factors. This study will call this strategy "the

Redistribution of Power Strategy". It means balancing of power among state, the MOPH, medical profession and consumers.

9.3.1 Redistribution of Power

Redistribution of power is the balance between policy makers that should have other sectors apart from government officials and medical professional. This sector is consumers of the health care system and being shareholder in health care policy making since district to national level. They do not run the health care directly system but have a chance to set their own health care system, select their own medical student and physician needs. This will lead to new National Health System, which composes of new structure of health policy makers, new structure of medical care system, new budgetary method, new balance of specialists and new medical selection method. These new methods will reduce gap between rural and urban areas, private and public health sectors and among several types of specialists.

9.3.1.1 New Structure of Helath Policy Makers

The Policy makers ought to compose of three compartments such as the government, the physician and the consumer sectors. These policy makers compose of local, district, provincial, regional and central health board and have to propose the Act for their required medical system to the government. However, the policy must be decentralized, the local authority such as the local health autorities, local governers and the representatives of the local people ought to have a share in major planning decisions but not directly run the system. What they must have is the power of approval, of budgetary control, of free access to all information on the health system while health personnel are one of the voters, decision-makers and technical consultants. The administrative systems are through a linkage of community, district, and provincial, regional and national health boards.

9.3.1.2 New Structure of Medical Care System

The recent Thai medical system that composes of private and public health sectors induces inequality in medical care of people and maldistribution of physician. This study will call this phenomenon "the two-class medical care" that is one for the poor and one for the rich. The two-class medical care should be immediately abolished.

Abolishing the two-class medical care does not mean that all existing private hospitals will be abolished totally but they must be in the same line of medical system as the public sector. Small private hospitals might become the local first-line community health centers for one part of a suburb. Large private hospitals might act as provincial or regional hospitals according to their facilities and serve population in their catchment areas as primary and secondary health units if those areas have no community hospitals.

The existing community hospitals are still located to assure ready access and freedom for all individual in their suburbs and are the direct and first point of health facilities to be used. They have to be staffed by multidisciplinary team of health workers serving under an incentive-based salary system, providing preventive, primary and continuing care and link to large hospitals, and special facilities for advanced care. Linkage to large hospitals is by referal system that must be strengthened. Patients cannot visit large hospitals directly unless they are referred by GPs in community hospitals.

9.3.1.3 New Budgetary Method

To finance the National Health Service are from national revenues, on the basis of full program of compulsory health insurance as well as taxation in according to the population they serve such as Health Security Fund among the workers. It is per capita payment for each level health facility. Private health insurance still remains but they must pay some funds to the government.

The government must be its own middleman, instead of duplicating the health system, in term of collection and payment of funds and will be in control of all aspects of the money flow situation. Most funds are paid to community hospitals in according to the people in the areas they serve and take resposibility to patients' cost of treatment they refer. To control cost of treatment, decisions on funding will have to be made by a group of committee, locally, provincially, regionally and nationally; individual decision will not be valid furthermore.. However, there must be some flexibility between different areas with peer review.

Payment for health workers should be an incentive-based salary system in all health sectors and all levels. By this system, salary and incentive will be equal both in private and public sectors because they are in the same line. The incentive-based salary payment must be used for all activities such as treatment, prevention, health promotion and other related health care to persuade the physicians in other parts of health care apart from treatment area. By this funding, the total income in private or urban practice will not far from public practice. So the private practice will less attractive, GP treatment will be more important in medical care sysem, the physician may distribute to rural areas equally.

9.3.1.4 New Balance of Specialists

There is imbalance among each specialty and led to inadequate GPs in Thai medical system. GPs have to play important roles as gatekeepers of medical system and have larger number than other specialists but in fact, they are far less numbers than other speicialties. To balance these specialists composes of the balance of policy makers in the Thai Medical Council that needs political efforts and increasing numbers of GPs.

a) Balance of policy makers in the Thai Medical Council is very important to promote GP training. To balance the policy makers is to change the proportion of members of Thai Medical Council. Recently, most members of the Thai Medical Council are from physicians in universities both appointed from the position and

elected there are few from the MOPH (details in chapter 8). These physicians concern with treatment area not preventive area, with patients in their hospital not large amount of population. The policies of specialist training are induced to their interests and to serve their needs. GP training is less interesting in their view.

The change is to re-allocate the quotas of the Thai Medical Council members in according to the numbers of physicians in every branch of practice. All Deans of the Faculties of Medicine need not being appointed to be members by their position which lead to more votes in any conference. There should be only their representatives by quota. The quota methods must be used in the MOPH and other health sectors also and in according to the numbers of physicians in rural and urban areas. This is the only way to balance the power of policy makers. The quota method must be used with both members from appointment and election. Then the policy of specialist training will be balanced and GP training will not be an orphan furthermore.

b) Balance of specialists to appropriate need: the appropriate proportion of GPs in Thailand Proposed by this study is about 50-60 percent of total physicians. Calculation of this proportion is based on the proportion of physician per population because all community hospitals have to serve a total 39,707,506 or about 66 percent of the 60 million people of the country. If we use the mean physician per population ratio at 1:4,200, the latest data, the physicians needed to serve these populations are 9,254. These physicians when compared with the active physicians, 16,571, the GPs in community hospitals will be 57.5 per cent near the rate of GPs in the USA.

How many GPs are needed in Thai National Health System? This is a challenging question. There are many studies about the numbers of GPs in Thailand but the data are varied from 21.6 to 60 percent (Wanlayasevi, A., Chong Udomsuk, P., Nittayarampongse, S. et.al. 2000: 50). However, they mentioned that these GPs could be graduated general physicians, specialist in GPs or in family medicine but this study propose that all of them have to certify in GP or family medicine and at the proportion at 60 percent of total physicians as described below.

The data from the medical council shows that GPs in Thailand account for 0.02 per cent out of total physicians (only the physicians who receive certification from the medical council). Meanwhile, other countries have about 30-50 percent GPs. (Table 10.1) Promotion of GPs is necessary because in an Entrepreneurial Health System, as the USA, where over supplies of specialists and physician shortage in remote areas occur. Therefore, they return to GP promotion. This evidence also occurs in the countries that has higher proportion of physicians than Thailand such as England, Canada, and Australia. (UTMB primary Care Education, 1999)

Australia has about 50 per cent GPs, while the USA and Great Britain have less than 50 per cen (Australia Bureau of Statistic. Available, 1999, Medical Workforce Standing Advisory Committee: Third Report, 1997, American Medical Association. Available, 1996, National Information Health Professionals, 1999) Although these countries say that increasing GPs is necessary, there is a policy to increase GPs until the proportion of other specialties is equal by the year 2000, since 1995. This is "Physician specialty distribution in HMO will be 50 / 50". (Demand & Supply of M.D.s in the Year 2000, 1995 the proportion may be up to 65 per cent to cover primary health care. (Physician supplies and distribution, 1998)

In Great Britain also, the yearly report 1997-1998 of Medical Practice Committee said that the remote areas of British and Wales lacked GPs. This report classified the degree of shortage in three levels as follows. (1) The severe shortage areas are the areas that have a GP per population ratio less than 1:2,100. (2) The moderate shortage areas have a GP per population ratio between 1: 1701 to 1: 2,100. (3) Areas that have a GP per population ratio less than 1: 1,700 are not shortage areas. (Medical Practices Committee: Annual Report for 1997-1998, 1998)

Thailand passed the economic crisis to prove that the medical development to be more specialization cannot serve true social needs, it only serves a group of people that have power to buy private health care. When the economy recessed they stopped. In contrast, the people are able to rely on public sector. It means that community-based medical care is better than technology-based medical cares. Even in the USA,

technology returns to community-based medical care to solve the physician shortage in rural areas, by promoting physicians as GPs.

Someone may argue that large amount of GPs may distribute unequally as the specialists now. This study does not deny that the GP distribution to the rural areas will always have inequity. This problem has occurred in Great Britain and Australia with higher proportions of GPs. That is why this study has proposed balance of new medical system also.

9.3.1.5 New Medical Student Selection Method

Important factors of migration of human resources or labors to urban areas are unequal opportunities in learning and job finding. Entering to medical education, the rural students have less opportunity; most medical students are from middle and high classed family in urban areas or in towns. This is a cause of migration to towns or urban areas after the period of compulsory health service. Another factor is less opportunity in job finding, Thai health system does not support GP's work well both in rural and urban areas unless the total health system changes, the GPs will migrate or congregate in urban areas also.

To reduce these two factors, the National Health System has to be changed from the concept of selecting the medical students by giving more opportunities for rural student to enter medical education. Furthermore, the local health authority, the local authority such as the district committee, which composes of both government officials and laypersons, must share this concepts and authority also. The rural students should be selected from their neighborhoods and sent to serve their neighborhoods. This is the way to balance power of entering this profession and to prevent migration. To achieve this purpose, there are two strategies to be done. First, balancing concepts of medical professions about entering medical education either by changing the policy by government concern or consumers' concern is needed. The entrance examination for selecting medical students may not suit the recent situation of rural physician shortage. Second, balancing the chance for entering medical

education for the rural students must be done. This is like the method of selecting other paramedical students such as graduated nurses and technical nurses. These two professions are selected by provincial quota and by local authority such as local health authority and committee of other profession. The MOPH can fill these two professions although the need is higher than the need for physicians. Why don't we use this example to solve rural physician shortage?

a) Increase opportunitty for rural student in medical education: the new concept about medical students and physicians is "the physicians are not necessarily the most intelligent persons". This concepts will not be balanced if the entrance examination of medical student does not change. The local authorities can select the most suitable medical students to be the best physicians for their areas.

Thailand has used the entrance examination from kindergarten level to university level. Therefore, the rural people lose their chance in education due to unequal distribution of resources, only the children in high and middle class in the town can pass the examinations. After several levels of entrance examinations, there are only the students in the towns that can pass. Therefore, they prefer working in their familiar workplace, the towns rather than rural areas. Moreover they do not care for rural areas and the poor even when needed. Ethics also do not always correspond with intelligence. (Phalittapholkarnpim, P. 1999:6 Thai) Moreover, the maturity of the physicians may not correspond with their intelligence also. Suphapong, S. (1999) had said:

"I have lectured to medical students for 8 batches, the early batches have good intention to work for the society, but the latter batches, I am not sure, because they play in the classroom and throw the candy to each other. They are intelligent but it is not sure that they will be good physicians. The ways to select medical students have to be revised." (Suphapong, S.1999: lecture)

Therefore the most intelligence physicians from entrance examination may not be the most suitable for the rural areas. The lecturers in medical schools ought to accept this concept also because they think that the rural students from rural recruitment project are not as intelligent as the students from entrance examinations. It

can be seen in the assessment book of the rural recruitment project, Mahidol University. (Thangsubut, K. 1983: 149 Thai)

The study of the Division of Manpower, the MOPH about the background of the compulsory physicians in the year 1997 shows that more than half of them live in Bangkok (53.2%) and about two-thirds of them live in the Central region (62.9%). In contrast very few physicians from other regions, resigned. Meanwhile most physicians, who resigned, lived in Bangkok (29.3%) and the Central region (18.9%). Very few physicians, from other regions, resigned. The difference of physicians from Bangkok and the rural provinces is significant either the total number of physicians or the physicians who resigned.

When we compare the above data with the data of the 26.7 per cent of physicians from rural recruitment project and the 8.3 per cent of physicians from entrance examination who still work in the community hospitals (Chapter 6), we can see that the physician whose hometowns are in rural provinces still work in the community hospital more than those, whose hometowns are in Bangkok. Therefore, the rural students ought to have higher chances to enter medical schools by changing the way of selection. It is not the same as the rural recruitment project in the past but the local authorities have to share the authority in selection also. Meanwhile the quotas for each province for medical education must be clarified as paramedics selected by the MOPH.

b) Increasing opportunity for local facilities to share selection of medical students and physicians is nescessary. Now, local authorities do not have chances to plan for their needs of physicians even in the closest health facilities as community hospitals. The MOPH is the distributor of the physicians. Meanwhile the local authorities have to wait for the merit of the MOPH and the physicians who are coming to the community hospitals. Therefore, the local authorities, from the district committees to the local health authorities in the provincial health offices, have to share in the local health policies as (1) planning for the real needs of their community

hospitals to have how many physicians and (2) having authority to select medical students from their locality to practice in their hometowns.

The MOPH has succeeded in the case of solving the shortage of other health personnel such as nurses, both graduated nurses and technical nurses. The numbers of nurses are more than the number of physicians in community hospitals. The MOPH can fill all positions of the community hospitals except the physicians. Vutthipongse, P. (1998), the former permanent secretary to the MOPH, had said:

"(1) The total nurses and other paramedics, the MOPH can fill by the years 2002, while it can fill a total of other paramedics by the year 2000. Total numbers of graduated nurses are 14,097 and the technical nurses are 21,277 more than of the physicians whose total numbers are only 2,023. (2) Meanwhile the MOPH can fill the large amount of nurses but it fails to fill the less amount or physicians in the community hospitals. Due to the Seventh National Economic and Social development Plan, expansion of new community hospitals, the MOPH' needs increased from 1,136 physicians by 1982 up to 3,675 physicians by 1992. The total physicians working in these hospitals increased from 620 up to 1,767 physicians, respectively. Although, it seems that the physicians in the community hospitals increased but it is only half of the total needs either by 1982 or 1992 Furthermore the shortage became more severe because the total physicians decreased to 1,419 physicians by the year 1995." (Vutthipongse, P. 1998: 7 Thai)

The success of the MOPH in filling the total numbers of nurses in the community hospital is identical that ought to be used to solve the physicians shortage in community hospitals. It results from (1) the MOPH has their nursing colleges so they can plan their productions. (2) The local health authorities as provincial chief medical offices can defined their demands yearly by receiving quotas and selecting the students in their locality and (3) the resignations and removal of the nurses are less than those of the physicians.

Selecting the rural students by quotas of each province and by the local health authorities can solve the physician shortage in community hospitals because a major problem of physician shortage in the community hospitals is that the turnover rate is very high. Most physicians work in community hospitals only during the contract period. After, they try to move to their hometowns or their lovers' hometown

because only few work in their hometowns during the compulsory period. However, after their removal, they enter residency training and never practice in community hospitals. It is proposed to use provincial quotas to send them to work by contracts because by not working in the hometowns, they cannot take care of their parents, they all miss their homes, moreover they think that they are punished by working far from Bangkok or the Central Region. (Kamthornvajchara, B., Jarusantikul, S. 1996: 67 Thai)

The attempts to select medical students from rural areas and send them to practice in hometowns are not only in Thailand. Even in the Great Britain and the United State of America that have lots of physicians but they do not distribute to the remote areas. They have proposed to select medical students according to their hometowns and health care needs of the localities. These can be seen as follows.

In Great Britain: "There was concern that the new recommendations on undergraduate education from the GMC, with its increased emphasis on training in general practice setting, could place straight on the number of general practices with inner cities that would be able to provide training for undergraduates. There is an under – utilization of rural practices and their role could be developed, thus increasing the number of students who could be accommodated.

The current geographical distribution of medical students does not reflect the distribution of population by region. It was suggested that the distribution of new student places might take this into accounting. It was thought that this imbalance needed to addressed." (DOH, 1997: 1-5)

In the USA the sample from Texas, besides geographic considerations, the University of Texas Medical Branches Primary Care Education has selected the medical students who interest to be GPs.

"We have also established programs to attract generalist-oriented students to UTMB, especially from rural communities in East Texas, developed new mechanisms to enhance communications among generalist faculty, and initiated collections of

attitudinal and demographic information from applicants and graduates in order to evaluate our programs' effectiveness and outcomes." (UTMB Primary Care Education, 1999: 2-10)

Imitation by Thai medical system of western medical systems leads to the same problem that physicians do not want to practice in rural areas. Western countries such as the USA and Great Britain are models of Thai medical system and face the same problem. The USA and Great Britain try to solve them by geographical consideration selecting the medical students. In contrast, The MOPH succeeded in filling the nurses into community hospitals by a quota systems of nursing students in each province; by quota systems it can manage the needs yearly. Furthermore, the rural selection of nursing students prevents them from removal after contracts. Therefore, the MOPH has to interest this strategy and push it vigorously to be practical.

Finally, we can see that the major problems of physician shortage in community hospital are from wide gap between rural and urban areas, specialists and GPs, private and public health sectors and ill-defined government policies. These are normal pattern of capitalism that rural areas are inferior to urban areas. There is migration of human resources to urban areas. To reduce this gap, health care reform is an alternative choice.

This chapter proposes one type of health care reform; the first is integration of private and public health sectors to abolish two-class medical care. To achieve this goal, government, medical professionals and consumers must share their interest. All consumers must be insurants. The government is the media for fund holder and funds each health facility according to its catchment area population. Payment for physicians is based on incentive-based salary both public and private sector to reduce gap of income. The second is to re-allocate each medical specialty to the proper need of the nation. Increasing of GPs is urgently needed to the desired proportion. The third is to give higher opportunity to rural students in medical students, furthermore the local system such as local health authority, representatives from nearby consumers must

have authority to set their need and select medical students also. By these reasons the physician shortage in rural areas especially in community hospitals will be eliminated.

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APPENDIX

APPENDIX A

TABLES

Table 1.1 Number of Thai physicians and proportion to population by regions

Region	Number of physician (person)	physicians to population proportion
Bangkok metropolis	6,1 54	1:909
Central	2,352	1:5,548
North	1,801	1:6,318
Northeast	1,857	1:10,740
South	1,224	1:5,968
Total	13,388	1:4,282

Source: Committee on Public Health, the Senate 1997

Table 1.2 Number of physicians in Southeast Asian Countries

Country	Number of physician (person)	physicians to population proportion
Brunei	226	1,250
Indonesia	29,450	6,250
Japan	234,200	570
Malaysia	8,297	2,300
Philippines	79,936	840
Singapore	4,146	700

Source: Committee on Public Health, the Senate 1997

Table 1.3 Population to physician ratio in Bangkok compared with those in other provinces.

Year	Population to physician ratio		
	Whole Country	Bangkok Metropolis	Other provinces
1977	7,503	1,289	17,117
1978	7,161	1,214	17,147
1979	6,868	1,209	15,897
1980	6,755	1,256	14,878
1981	6,851	1,362	14,027
1982	6,333	1,342	12,171
1983	6,259	1,404	11,453
1984	6,254	1,512	10,740
1985	5,978	1,453	9,706
1986	5,564	1,407	8,799
1987	5,595	1,418	8,871
1988	4,832	1,165	7,618
1989	4,361	1,062	7,027
1990	4,500	1,082	7,556
1991	4,425	985	7,326
1992	4,282	909	7,148
1993	4,260	900	7,055
1994	4,165	940	6,510
1995	4,180	999	6,244

Source: Information Center, Bureau of Health policy and plan, MOPH

Table 1.4 Numbers of physicians practice in community hospital, 1995-1997

region*	1995			1996			1997		
	Full number	Mini mum	True number	Full number	Mini mum	True number	Full Number	Mini mum	True number
1	1,858	96	86	192	101	78	199	105	80
2	206	109	112	215	120	114	219	126	84
3	265	148	148	292	164	138	299	176	140
4	227	130	110	243	146	128	244	155	188
5	416	236	227	442	266	176	456	290	218
6	480	261	235	511	293	225	521	304	243
7	389	207	183	423	228	152	440	247	153
8	214	122	112	221	127	94	222	129	103
9	273	147	140	282	160	123	286	166	3,133
10	337	170	176	342	181	156	345	188	125
11	318	162	149	321	168	126	324	171	137
12	294	148	128	317	161	139	317	163	131
total	3,604	1,936	1,806	3,818	2,115	1,649	3,872	2,220	1,665
Percent by full number			50.11			43.19			43

Source: Rural Health Division, MOPH , include all compulsory physicians from survey

* MOPH divided other 75 provinces except Bangkok into 12 regions, these are:
Region 01 Nonthaburi, Pathum Thani, Phra NaKhon Si Ayutthaya, Ang Thong, Samut Prakarm,
Region 02 Saraburi, Suphan Buri, Sing Buri, Lop Buri, Nakhon Nayok, Chai Nat,
Region 03 Chon Buri, PraChin Buri, Chanthaburi, Chachoengsao, Trat, Rayong, Sa Kaeo
Region 04 Ratchaburi , Nakhon Pathom, KanChanaburi, Phetchaburi, Prachuap Khiri Khan, Samut Sakhon, Samut Songkhram
Region 05 Chaiyaphum, Buri Ram, Surin, Nakhon Ratchasima, Maha Sarakham,
Region 06 Loei, Nong Khai, Khon Kaen, Udon Thani, Sakon Nakhon, Kalasin
Region 07 Si Sa Ket, Yasothon, Ubon Ratchathani, Nakhon Phanom, Mukdahan, Roi Et, Nong Bua Lamphu, Amnat Charoen
Region 08 Uthai Thani, Nakhon Sawan, Tak, Kamphaeng Phet Sukhothai, Phitsanulok,
Region 09 Phetchabun, Phrae, Nan, Phichit, Uttaradit, Lampang
Region 10 Chiang Rai, Chiang Mai, Lamphun, Phayao,
Region 11 Sutat Thani, Chumphon, Ranong, Phanggna, Nakhon Si Thammarat Phuket Krabi
Region 12 Narathiwat Pattani, Yala, Trang, Phatthalung, Songkhla

Table1.5 Distribution of physicians and physician to population ratio by regions,1995

Region	Population in areas serviced by community hospitals	Physicians	
		Number	Physicians to population ratio
1	2,103,252	81	25,966
2	2,088,251	107	19,516
3	2,569,916	136	18,896
4	2,115,158	109	19,405
5	6,376,068	204	31,255
6	4,453,856	182	24,471
7	5,452,170	145	37,601
8	2,453,366	88	27,879
9	2,877,319	117	24,592
10	3,659,825	148	24,728
11	2,707,869	135	20,058
12	2,850,456	122	23,364
Total	39,707,506	1,574	25,227

Source: Rural Health Division, MOPH

Note: Population' data from ministry of interior 1994

: Physicians' data on 1 October 1998. Exclude first year compulsory training Physicians

Table 1.6 Yearly number of physician lost from community hospitals

Year	Physician number	Number resigned	%	Total loss	%
1982	628	12	1.9	152	24.2
1983	736	4	0.5	158	21.5
1984	934	8	0.8	169	18.1
1985	1,113	5	0.4	208	18.6
1986	1,182	4	0.3	269	22.8
1987	1,339	9	0.6	231	17.03
1988	1,475	5	0.3	212	14.4
1989	1,458	40	2.6	252	16.3
1990	1,679	60	3.6	220	13.1
1991	1,813	-	-	-	-
1992	1,945	169	-	-	-
1993	2,029	235	-	-	-
1994	2,070	256	-	-	-
1995	1,832	176	-	-	-
1996	1,916	-	-	-	-
1997	2,010	-	-	-	-

Source: Rural Health Division, MOPH, 1997

Note: Blank is no record available.

Table 1.7 Lists of community hospital without physicians, 1997.

	10-bed hospital/ province	30-bed hospital/ province	60-bed hospital/ province
1.	Wat Sing /Chai Nat	Kudchum/Yasothon	Nakornthai/ Phitsanulok
2.	Naduang/Loei	Lankraboe/Kamphaeng Phet	
3.	Wan Yai / Mukdahan	Sarapee/Chiang Mai	
4.	Khongjiam /Ubon Ratcha-Thani	Pipoon/Nakorn Si Tham-marat	
5.	Tansum/ Ubon Ratcha-Thani	Chianyai/ Nakorn Si Tham-marat	
6.	Donmoddaeng/ Ubonrajchathanee		
7.	Muengsraung/Roi Et		
8	Pon-Sai/Roi Et		
9.	Nonkoon/Si Sa Ket		
10.	Muengchan/ Si Sa ket		
11.	Patoomrajchawongsa/ Amnat Charoen		
12.	Loe-amnat/ Amnat Charoen		
13.	Nam-now/ Phetchabun		
14.	Mae-wang/ Chiang Mai		
15.	Mae-prig/Lampang		
16.	Thampannara/ Nakornsrithammaraj		
17.	Mae-lan / Pattani		
18.	Ka-bang/ Yala		
19.	Kian-cha/ Surat Thani		

Source: Division of Rural Health, MOPH

Table 2.1 Number of physicins graduated from various medical schools, 1970-1986

Year	Siriraj	Chula longkorn	Chiang Mai	Rama Thibodi	Khon Kaen	Songkhla	Pramong kut
1970	139	89	51	64	_	_	_
1971	151	153	63	59	_	_	_
1972	147	165	56	63	_	_	_
1973	150	101	58	62	_	_	_
1974	148	112	61	59	_	_	_
1975	150	85	90	70	_	_	_
1976	161	96	90	70	_	_	_
1977	155	98	128	70	_	_	_
1978	159	96	105	70	13	35	_
1979	162	103	120	82	30	30	_
1980	155	97	99	75	45	31	31
1981	162	95	106	80	57	65	32
1983	173	99	109	113	63	64	34
1983	174	110	99	124	61	64	30
1984	182	116	101	114	76	64	30
1985	183	115	13	120	76	64	30
1986	188	115	120	120	76	64	30

Source: the foutrh and fifth National Medical Education Conferences

Table 3.1 The first ten provinces with most physicians and GPP

No.	Provinces	Number of physicians	GPP at constant 1988 prices (1,000 Bath)
1.	Chiang Mai	712	47,819,828
2.	Nonthaburi	616	48,649,055
3.	Khon Kaen	514	38,688,494
4.	Songkhla	478	46,969,759
5.	Chon Buri	342	148,132,741
6.	Nakhon Ratchasima	279	63,779,615
7.	Ratchaburi	217	31,715,085
8.	Samut Prakarn	203	124,241,259
9.	Phitsanulok	181	18,462,593
10.	Nakhon Sawan	174	26,551,420

Source: summary from the data of Bureau of National Statistic, 1995

Table 3.2 The first ten provinces with less numbers of physicians and GPP

No.	Province	Number of physicians	GPP at constant 1988prices (1,000 Bath)
1.	Amnat Charoen	18	5,073,098
2.	Nong Bua Lamphu	18	5,731,796
3.	Satun	25	7,462,477
4.	Mukdahan	28	4,710,104
5.	Sa Kaeo	28	8,501,862
6.	Mae Hong Son	29	3,133,779
7.	Ranong	30	7,606,076
8.	Krabi	31	12,509,939
9.	Yasothon	32	7,158,439
10.	Samut Song Khram	32	5,621,523

Source: summary from the data of Bureau of National Statistic, 1995

Table 3.3 Distribution of physicians in the hospitals of Ministry of Defense(1997)

Thai Royal Army		Thai Royal Navy		Thai Royal Airforce	
Corps	No. of physi -cians	Corps	No. of physi -cians	corps	No. of physi -cians
Pramongkutgloa Hospital, Bangkok	597	Bhumiphol Hospital, Bangkok	288	Prapingloa Hospital	125
1st Army area	54	Chandharubek-sa hospital	61	Queen Sirikit Hospital	80
2nd Army area	115	Other provinnces	9	Apakornkietwong hospital	11
3rd Army area	60			Physician in other 10 rural hospital and military medical centers	16
4th Army area	25				

Source: Yearly report 1997, Thai Royal Army Medical Service Department
Yearly report 1997, Directorate of Medical Services, Thai Royal Air Force
Yearly report 1997, Thai Royal Navy Medical Service Department

Table 3.4 Number of physicians by specialties (1971-1998)

	Specialty	Number of specialists
1	Gastroenterologists	1
2	Thoracic medicine	5
3	Nuclear medicine	12
4	General pathologists	14
5	Pediatric hematologists	14
6	Clinical pathologists	26
7	Colorectal surgeons	28
8	Pediatric cardiologists	30
9	Pediatric psychiatrists	32
10	Medical hematologists	32
11	Pediatric pulmonology	32
12	Nuclear radiologists	33
13	Aerospace medicine	34
14	Therapeutic radiologists	34
15	Pediatric urologists	35
16	Epidemiologists	49
17	Occupational medicine	54
18	Forensic medicine	63
19	Hematologists	67
20	Medical pulmonology	70
21	Nephrologists	78
22	Pediatric surgeons	83
23	Thoracic surgeons	101
24	Public health	125
25	Neurologist	144
26	Plastic surgeons	163
27	Anatomic pathologists	168
28	Physical medicine and rehabilitation	169
29	Diagnostic radiologists	180
30	Cardiologists	182
31	Urologists	193
32	Neurosurgeons	195
33	General practitioners	216
34	Dermatologists	249
35	Psychiatrists	324
36	Clinical preventive medicine	356
37	General radiologist	360
38	Otorhinolarygologists	423
39	Anesthesiologists	511
40	Ophthalmology	533
41	Orthopedic surgeons	798
42	General surgeons	1404
43	OB/GYNs	1416
44	Pediatrics	1623
45	Internal medicine	1731

Source: Thai Medical Council

Table 5.1 Physician per population ratio by regions, 1997

Region	Number of physicians	Physicians per population ratio
Bangkok Metropolis	6,154	1:909
Central	2,352	1:5,548
North	1,801	1:6,318
North Eastern	1,857	1:10,740
South	1,224	1:5,968
Total	13,388	1:4,282

Source: the Committee on Public Health, the senate 1997

Table 5.2 Number of physicians, physician per population ratio and physician per outpatient in community hospitals by advisory regions, 1997

Region	Physicians		
	Number of physicians	Physician per population ratio	Physician per outpatient ratio
1	80	20,608	16,758
2	84	22,228	19,305
3	140	19,486	16,140
4	118	18,387	15,075
5	218	27,695	17,084
6	243	23,459	18,726
7	153	34,382	22,936
8	103	22,447	16,588
9	133	21,906	15,813
10	125	28,020	21,192
11	137	20,199	16,415
12	131	21,114	15,882
Total	1,655	24,118	17,870

Source: from Fiscal year 1997 report of the division of Rural Health, MOPH

Table 5.3 Total number of physicians in each province, numbers of physicians in community and the physician in community hospital to total number physcians in the same provinces ratio. (Data at July 1997)

	Total numbers of physicians	Numbers of physician in community hospital	Physician in community to total physicians in the same provinces ratio
Region 1/province			
1. Nonthaburi	616	11	1 : 56
2. Ang Thong	45	14	1 : 3.2
3. Phra Nakhon Si Ayutthaya	95	26	1 : 3.7
4. Samut Prakarn.	203	16	1 : 12.7
5. Pathum Thani	106	13	1 : 8.2
Total	**1,065**	**80**	**1 : 13.3**
Region 2/Province			
6. Saraburi	146	15	1 : 9.7
7. Chai Nat	43	9	1 : 4.8
8. Suphan Buri	94	21	1 : 4.5
9. Lop Buri	110	21	1 : 5.2
10. Sing Buri	72	7	1 : 10.3
11. Nakhon Nayok	55	11	1 : 5.0
Total	**520**	**84**	**1 : 6.2**
Region 3/province			
12 Chon Buri	342	36	1 : 9.5
13. Rayong	101	16	1 : 6.3
14. Sakaeo	28	15	1 : 2.3
15. Chachoengsao	76	20	1 : 3.8
16. Chanthaburi	122	21	1 : 5.8
17. Trat	36	10	1 : 3.6
18. Prachin Buri	76	22	1 : 3.5
Total	**781**	**140**	**1 : 5.6**
Region 4/province			
19. Kanchanaburi	80	24	1 : 3.3
20. Nakhon Pathom	132	19	1 : 6.7
21. Prachuap Khiri Khan	64	22	1 : 2.9
22. Phetchaburi	55	20	1 : 2.75
23. Ratchaburi	217	13	1 : 16.7
24. Samut Songkhram	32	10	1 : 3.2
25. Samut Sakhon	101	11	1 : 925
Total	**681**	**119**	**1 : 20.6**
Region 5/ province			
26. Chaiyaphum	60	33	1 : 1.8
27. Nakhon Ratchasima	279	78	1 : 3.6
28. Buri Ram	81	52	1 : 1.6
29. Maha Sarakham	51	22	1 : 2.3
30. Surin	98	33	1 : 2.7
Total	**569**	**218**	**1 : 2.6**

Table 5.3 Total number of physicians in each province, numbers of physicians in community and the physician in community hospital to total number physcians in the same provinces ratio. (Data at July 1997) (cont.)

	Total Number of physicians	Number of physician in community hospital	Physician in community hospiytal to total physicians in the same provinces ratio
Region 6/province			
31. Kalasin	65	29	1 : 2.2
32. Khon Kaen	514	55	1 : 9.3
33. Nong Khai	50	32	1 : 1.6
34. Nong Bua Lamphu	18	12	1 : 1.5
35. Loei	47	21	1 : 2.2
36. Sakon Nakhon	81	46	1 : 1.8
37. Udon Thani	133	48	1 : 2.8
Total	**908**	**243**	**1 : 3.7**
Region 7/province			
38. Nakhon Phanom	45	24	1 : 1.9
39. Mukdahan	28	9	1 : 3.1
40. Yasothon	32	15	1 : 2.1
41. Roi Et	82	31	1 : 2.6
42. Si Sa Ket	69	35	1 : 2.0
43. Amnat Charoen	18	9	1 : 2.0
44. Ubon Ratchathani	132	30	1 : 4.4
Total	**416**	**153**	**1 : 2.7**
Region 8/province			
45. Kamphaeng Phet	48	16	1 : 3.0
46. Tak	52	17	1 : 3.1
47. Nakhon Sawan	174	30	1 : 5.8
48. Sukhothai	63	22	1 : 2.9
49. Uthai Thani	36	18	1 : 2.0
Total	**373**	**103**	**1 : 3.6**
Region 9/province			
50. Nan	63	25	1 : 2.5
51. Phichit	71	20	1 : 3.6
52. Phitsanulok	181	14	1 : 12.9
53. Phetchabun	56	32	1 : 1.8
54. Phrae	61	19	1 : 3.2
55. Uttaradit	49	23	1 : 2.1
Total	**481**	**133**	**1 : 3.6**
Region 10/province			
56. Chiang Rai	130	31	1 : 4.2
57. Chiang Mai	712	42	1 : 16.9
58. Phayao	49	8	1 : 6.1
59. Mae Hong Son	29	13	1 : 2.2
60. Lampang	132	22	1 : 6.0
61. Lamphun	42	9	1 : 4.7
Total	**1,094**	**125**	**1 : 8.8**

Table 5.3 Total number of physicians in each province, numbers of physicians in community and the physician in community hospital to total number physcians in the same provinces ratio. (Data at July 1997) (cont.)

	Total numbers of physicians	Numbers of physician in community hospital	Physician in community to total physicians in the same provinces ratio
Region 11/province			
62. Krabi	31	15	1 : 2.1
63. Chumphon	62	22	1 : 2.8
64. Nakhon Si Thammarat	138	35	1 : 3.9
65. Phangnga	43	17	1 : 2.5
66. Phuket	56	9	1 : 6.2
67. Ranong	30	7	1 : 4.2
68. Surat Thani	132	32	1 : 4.1
Total	**462**	**137**	**1 : 3.4**
Region 12/province			
69. Trang	75	21	1 : 3.6
70. Narathiwat	45	16	1 : 2.8
71. Phatthalung	34	18	1 : 1.9
72. Pattani	46	23	1 : 2.0
73. Yala	89	11	1 : 8.1
74. Songkhla	478	31	1 : 15.4
75. Satun	25	11	1 : 2.3
Total	**822**	**131**	**1 : 6.3**
Whole country	**8,172**	**1,665**	**1 : 4.9**

Source: National Health Statistic

Table 5.4 Physician per outpatient ratio of community hospitals and provincial or regional hospitals by provinces

	Province	Provincial hospitals or regional hospital	Out-patient of provincial hospitals	Amount of physicians	Physician in provincial hospital per outpatient ratio	Total community hospital physician in each province/ Number of hospital	Physician in community hospital per outpatient ratio
1.	Nonthaburi	Phra Nang Klao	268,816	55	4,888	11/5	19,204
2.	Pathum Thani	Pathumthani	144,280	26	5,549	13/7	13,964
3.	Phra Nakhon Si Ayutthaya	Phra Nakhon Si Ayutthaya	162,881	34	4,791	26/15	17,511
4.	Phra Nakhon Si	Sena	98,540	16	6,159		
5.	Ang Thong	Ang Thong	128,210	28	4,579	14/6	17,818
6.	Samut Prakarn	Samut Prakarn	256,795	37	6,940	16/4	14,620
7.	Saraburi	Saraburi	235,289	63	3,735	15/10	23,843
8.	Saraburi	Phra Phutthabath	187,333	25	7,493		

Table 5.4 Physician per outpatient ratio of community hospital and provincial or regional hospitals by provinces (cont.)

	Province	Provincial hospitals or regional hospital	Out-patient of provincial hospitals	Amount of physicians	Physician in provincial hospital per outpatient ratio	Total community hospital physician in each province/ Number of hospital	Physician in community hospital per outpatient ratio
9.	Su Phan Buri	Chao	179,541	43	4,175	21/8	22,466
10.	Su Phan Buri	Phrayayommaraj Sondej Phra	68,431	14	4,888		
11.	Sing Buri	Sangkharach 17th Sing Buri	142,148	43	3,306	7/4	15,059
12.	Sing Buri	Inn Buri	76,472	14	5,462		
13.	Lop Buri	Lop Buri	170,554	20	8,528	21/9	17,528
14.	Lop Buri	Ban Mee	109,446	14	7,818		
15.	Nakhon Nayok	Nakhon Nayok	112,219	24	4,676	11/3	9,793
16.	Chai Nat	Chai Nat	114,199	15	7,613	9/5	23,430
17.	Chon Buri	Chon Buri	348,221	132	2,638	36/10	19,022
18.	Prachin Buri	Chao Phraya	152,225	23	6,618	22/6	12,111
19.	Sakaeo	Aphai Phubet Phra Yuppharach	79,006	12	6,584	15/5	16,553
20.	Chanthaburi	Phra Pokklao	186,718	85	2,197	21/11	15,782
21.	Chachoengsao	Chachoengsao	181,210	42	4,315	20/9	15,902
22.	Trat	Trat	131,316	29	4,528	10/5	12,329
23.	Rayong	Rayong	193,895	45	4,309	16/6	18,873
24.	Ratchaburi	Ratchaburi	308,667	65	4,749	13/6	22,280
25.	Ratchaburi	Ban Pong	158,591	24	6,608		
26.	Ratchaburi	Photharam	100,444	18	5,580		
27.	Ratchaburi	Damneon Saduak	84,240	14	6,017		
28.	Nakhon Pathom	Nakhon Pathom	270,515	71	3,810	19/8	17,089
29.	Kanchanaburi	Phahol	169,374	26	6,514	24/11	19,181
30.	Kanchanaburi	Polphayuhasena Makarak	133,222	15	8,881		
31.	Phetchaburi	Phra Jom Kloa	123,469	37	3,337	20/7	13,200
32.	Prachuap Khiri	Prachuap Khiri	103,696	17	6,100	22/7	14676
33.	Khan Samut Sakhon	Khan Samut Sakhon	219,405	37	5,930	11/2	19,783
34.	Samut Song	Phra Puttha	197,843	26	7,609	10/2	9,181
35.	Khram Chaiyaphum	Loetlha Chaiyaphum	216,004	40	5,400	33/14	22,661
36.	Buri Ram	Buri Ram	179,129	36	4,976	52/18	17,257
37.	Surin	Surin	198,287	48	4,131	33/12	17,593

Table 5.4 Physician per outpatient ratio of community hospital and provincial or regional hospitals by provinces (cont.)

	Province	Provincial hospitals or regional hospital	Out-patient of provincial hospitals	Amount of physicians	Physician in provincial hospital per outpatient ratio	Total community hospital physician in each province/ Number of hospital	Physician in community hospital per outpatient ratio
38.	Nakhon Ratchasima	Maharaja Nakhon Ratchasima	418,379	144	2,905	78/24	20,132
39.	Si Sa Ket	Si Sa Ket	185,424	23	8,062	35/17	36,738
40.	Loei	Loei	126,239	20	6,312	21/11	23,669
41.	Nong Khai	Nong Khai	155,443	23	6,758	32/12	17,361
42.	Khon Kaen	Khon kaen	313,398	78	4,018	55/19	21,751
43.	Udon Thani	Udon Thani	286,310	71	4,033	46/18	15,288
44.	Nong Bua Lamphu	Nong Bua Lamphu	68,240	12	5,687	12/4	16,578
45.	Sakon Nakhon	Sakon Nakhon	131,384	33	3,981	46/10	17,245
46.	Yasothon	Yasothon	173,691	21	8,271	15/8	25,645
47.	Ubon Ratchathani	Ubon Ratchathani	372,862	72	5,179	30/19	29,771
48.	Amnat Charoen	Amnat Charoen	100,555	10	10,056	9/6	18,461
49.	Nakhon Phanom	Nakhon Phanom	100,069	21	4,765	24/10	22,622
50.	Mukdahan	Mukdahan	74,325	23	3,232	9/6	20,757
51.	Kalasin	Kalasin	132,603	31	4,278	29/13	24,862
52.	Roi Et	Roi Et	212,110	43	4,933	31/16	25,225
53.	Maha Sarakhram	Maha Sarakhram	170,585	30	5,686	22/10	21,418
54.	Uthai Thani	Uthai Thani	96,806	27	3,585	18/7	16,468
55.	Nakhon Sawan	Sawan Pracharak	280,870	81	3,468	30/12	17,665
56.	Tak	Somdej Phra Chao Taksin	132,583	23	5,764	17/6	10,384
57.	Tak	Mae Sod	87,397	27	3,237		
58.	Kamphaeng Phet	Kamphaeng Phet	174,141	22	7,916	19/9	23,867
59.	Sukhothai	Sukhothai	132,152	30	4,405	22/7	16,995
60.	Sukhothai	Si Sangwon	145,212	27	5,378		
61.	Pitsanulok	Phra Phutthachinnaraj	288,402	84	3,433	14/8	26,763
62.	Petchabun	Petchabun	109,414	22	4,973	32/10	13,994

Table 5.4 Physician per outpatient ratio of community hospital and provincial or regional hospitals by provinces (cont.)

	Province	Provincial hospitals or regional hospital	Out-patient of provincial hospitals	Amount of Physi-cians	Physician in provincial hospital per outpatient ratio	Total community hospital physician in each province/ Number of hospital	Physician in community hospital per outpatient ratio
63.	Phrae	Phrae	170,294	23	7,404	19/7	18,768
64.	Nan	Nan	155,754	34	4,581	25/12	17,882
65.	Phichit	Phichit	116,680	23	5,073	20/7	19,231
66.	Uttaradit	Uttaradit	226,932	32	7,092	23/8	11,810
67.	Lampang	Lampang	324,568	79	4,108		
68.	Chiang Rai	Chiang Rai	300,592	64	4,697	31/15	37,988
69.	Chiang Mai	Prachanukroa Nakhon Pink	167,533	51	3,285	42/20	22,239
70.	Mae Hong Son	Si Sangwan	64,045	13	4,927	13/6	23,488
71.	Lamphun	Lamphun	118,070	19	6,214	9/6	28,858
72.	Phayao	Phayoa	139,851	24	5,827	8/5	33,069
73.	Phayoa	Chiang Kam	102,672	16	6,417		
74.	Surat Thani	Surat Thani	268,972	56	4,803	32/16	22,933
75.	Surat Thani	Koa Samui	34,111	9	3,790		
76.	Chumphon	Chumphon	121,835	31	3,930	22/10	14,081
77.	Ranong	Ranong	166,565	18	9,254	7/4	11,027
78.	Nakhon Si Thammarat	Maharaj Nakhon Si Thammarat	290,146	60	4,836	35/17	24,746
79.	Phangnga	Phangnga	76,119	16	4,757	17/8	9,273
80.	Phangnga	Ta Kua Pa	81,487	13	6,268		
81.	Phuket	Vajira Phuket	201,351	43	4,683	9/2	13,220
82.	Krabi	Krabi	103,296	21	4,919	15/7	12,336
83.	Narathiwat	Narathiwat	135,440	17	7,967	16/9	15,210
84.	Narathiwat	Su Nghai Kolok	89,653	17	5,274		
85.	Pattani	Pattani	138,015	34	4,059	23/11	12,004
86.	Yala	Yala	247,549	47	5,267	11/5	13,740
87.	Yala	Be Tong	70,447	14	5,032		
88.	Trang	Trang	195,987	34	5,764	21/8	17,939
89.	Phatthalung	Phatthalung	146,498	20	7,325	18/9	18,832
90.	Satun	Satun	87,837	17	5,167	11/5	13,583
91.	Songkhla	Songkhla	252,623	45	5,614	31/16	18,152
92.	Songkhla	Had Yai	354,377	78	4,543		

Source: Summary from National Health Statistic

Table 5.5 First ten diseases of outpatients commonly found in community hospitals, 1998 (By random sampling)

Hospitals	Lad Lum kaew	Pak Pa Yun	Pa Mok	Bang Bua Thong	Sara phi	Tha Sae	Ban Na	Huay Ploo
Beds	10	30	30	30	30	30	60	60
Diseases	Ranking							
Respiratory diseases	1	1	1	2	1	1	1	1
Musculoskeleton diseases	7		4	7	4		8	7
Digestive tract and oral cavity diseases	3	2	2	6	2	2	2	3
Eye and its components diseases	10			10				
Skin and subcutaneous diseases	9		5	9	5		9	5
Circulatoty diseases	4	4	6	5	6		3	8
Genitourinary tract diseases			10		9			
Mental and behavioral disorders					10			
Transport accidents	2		9	3			10	
Infectious and parasitic diseases	5	3		8	3	4	6	6
Endocrine and metabolism disease	6		3	4	8		5	10
External cause of Morbidity and mortality				1		5	7	4
Neuro system disease			7		7			9
Disease of non-specific origins	8	5	8			3	4	2

Sources Yearly reports of each hospital

Table 5.6 First ten diseases of outpatients commonly found in provincial hospitals, 1998 (By random sampling)

Hospitals	Utta radit	Sara Buri	Muk da han	Mae Sod	Su rat tha ni	Pa thum Thani	Ra yong	Ya la
Diseases	Ranking							
Respiratory tract diseases	1	1	1	1	1	2	10	1
Musculoskeleton disease	2	6	5	4	3	4		5
Digestive tract and oral cavity disease	3	8	2	2	2	1		4
Eye and its components diseases	4				6	6	7	
Skin and subcutaneous diseases	5	7	10	7	7	10		7
Circulatory diseases	6	4		5	10	5	9	2
Genitourinary tract disease	7		7	8	8			10
Mental and behavioral disorders	8	5	8	10			5	
Transport accident	9	10						9
Infectious and parasitic diseases	10	2	6	3	5	8	1	3
Endocrine and metabolism disease		3	4	6		3	4	6
External cause of Morbidity and mortality		9	3	9				8
Ear and mastoid process disease			9			9	8	
Diseases of pregnancy and birth					9			
Neuro system diseases							6	
Diseases of non-specific origins					4	7		
Blood disease							2	
Tumors							3	

Sources Yearly reports of each hospital

Table 5.7 First ten diseases of inpatients commonly found in provincial hospitals (By random sampling)

Hospitals	Phra Phuttha Chinnaraj	Sanphasitthi Prasong	Prachuap Khiri Khan	Roi Et
Year	2540	2541	2540	2540
Diseases	Ranking			
Acute URI	1	1	1	6
Hypertension	2	3	3	7
DM.	3	2	2	2
Back pain	4	7		9
Peptic ulcer	5		7	4
Pharyngitis	6		6	
Diarrhea	7	8	5	3
Schizophrenia	8			
Vertigo	9			
Asthmatic bronchitis	10	9	10	
Dyspepsia		4	9	10
Renal calculi		5		
Abdominal pain		6		
Cataract		10		
Traffic accident			4	
fever (unspecified)				5
Myalgia			8	
Dengue hemorrhagic fever				8
Unspecified disease of upper respiratory tract infection				1

Source: Yearly reports of each hospital

Table 6.1 Percentage of bureaucrats who were the members of Legislative Assemblies by appointment.

	Field Marshal Sarit Period,1959	**Field Marshal Thanom period, 1972**	**Mr. Thanin period, 1973**	**Mr. Thanin period, 1976**
Total Bureaucrat	95 %	91 %	56 %	71 %
Soldier,Policeman	78.6 %	66.8 %	21.37 %	73.73 %
Civil servants	21.5 %	33.19 %	78.62 %	22.27 %

Source: Dhiravegin, op.cit., pp.208 - 209, 210 – 211 cite by Nakhata, T., 1993: 9 in Thai

Table 6.2 State enterprise industries, 1949-1950

Ministry/Department	**Organization/agencies**
1. **Ministry of Agriculture**	
Department of fisheries	The Fish Marketing Organization
The Royal Forestry Department	The forest Industry Organization
Office of Permanent Secretary	The Rubber Estate Organization Nabon
Office of Permanent Secretary	The Government Cold Storage Organization
Office of Permanent Secretary	Thai Fishery Company Limited
Office of Permanent Secretary	The Royal Irrigation Portland Cement Company
Office of Permanent Secretary	The Thai Plywood Company limited
2 **Ministry of Defence**	The Energy Organization
	The Tanning Organization
	The Testile Organization
	The Glass Organization
	The Battery Organization
	The Preserved Food Organization

Table 6.2 State enterprise industries, 1949-1950 (cont.)

Ministry/Department	Organization/agencies
	Bangkok Shipyard Compay.
3 **Ministry of Finance**	Thai Corps Trade Company.
4 **Ministry of Industry**	
Department of Mineral Resources	The Offshore Mining Organization
Department of Industrial Work	Sugar Factory Inc.
Department of Industrial Work	Thai Paper Organization
Department of Industrial Work	Bang Yi Khan Liquor and Alcohol Distillery
Department of Industrial Work	Gunny-Bag Weaving Factory
Department of Industrial Work	14 Provincial Liquor and Alcohol Distilleries
Department of Science	Alum Industry
Department of Science	Shoe Polish Factory
Department of Science	Glue Factory
Department of industrial Promotion	Porcelane Factory
Department of industrial Promotion	Thai rubbery Company
Department of industrial Promotion	Thai Sugar Industry Company
5 Ministry of Economic Affairs	
Department of Internal Trade	The Public Warehouse Organization
Office of the Permanent Secretary	Thai Rice Office
Office of the Permanent Secretary	Jangwat Trading Company
Office of the Permanent Secretary	Thai Jute Company
6 **Ministry of Cooperation**	
Office of the Permanent Secretary	Thai Salt Company

Source: Khumthong C.W., 1984: 242-243 in Thananpornphan, R., The editor. In Thai

Table 6.3 The number of physicians from the Rural Recruitment and Training Project and the physicians from usual entrance examination who remain at community hospitals

Workplace	type of physicians		total
	rural recruitment	entrance examination	
Community hosp.	103	39	142
%	26.7%	8.3%	16.6%
Others	283	433	716
%	73.3%	91.7%	83.4%
Total	386	472	858
	100%	100%	100%

Note. Community hospitals are all level community hospitals
Others are other public health facilities excepts community hospitals.

Table 6.4 Workplace of physicians from Rural Recruitment Project and physicians from entrance examination

Workplace	Type of physicians		Total
	Rural Recruitment	Entrance examination	
Community Hospital	103	39	142
%	26.7%	8.3%	16.6%
Larger Public Hospitals	97	218	315
%	25.1%	46.2%	36.7%
Private sectors	175	210	385
%	45.3%	44.5	44.9%
Others	11	5	16
%	2.8%	1.1%	1.9%
Total	386	472	858
%	100%	100%	100%

Note: Larger Public Hospitals are the public hospitals that are not community hospitals.
Private sectors are all level private heath care units.
Others are the physicians who do not practice as medical caregivers any more but still in public sectors but work as executives of each level of the MOPH or as the technocrats, etc

Table 6.5 Position of the physicians from Rural Recruitment Project and usual entrance examination who still practice in Community hospitals

Position	Type of physicians		Total
	Rural recruitment	Entrance examination	
Director	50	19	69
	48.6 %	50%	48.9%
Non-Director	53	19	72
	51.4%	50%	51.1%
Total	103	38	141
	100%	100%	100%

Table 6.6 The size of community hospitals which are the workplace of physicians

Size of community hospitals	Type of physicians		Total
	Rural recriuitment	Entrance examination	
10-bed hospital	23	4	27
	22.3%	10.5%	19.1%
30-bed hosptal	42	19	61
	40.8%	50.0%	43.3%
60-bed hospital	35	11	46
	34.0%	28.9%	32.6%
90-bed hosptital	3	2	5
	2.9%	5.3%	3.5%
120-bed hospital	-	2	2
	-	5.3%	1.4%
Total	103	38	141
	100%	100%	100%

Table 6.7 Size of community hospitals and the positions of physicians by type of graduation

Size of Community Hospital	Position	Type of Physicians		Total
		Rural Recruitment	Entrance examination	
10-bed hospital	Director	18	4	22
	%	17.5%	10.5%	15.6%
	Non-director	5	-	5
	%	4.9%		3.5%
30-bed hospital	Director	25	10	35
	%	24.3%	26.3%	24.8%
	Non-director	17	9	26
	%	16.5%	23.7%	18.4%
60-bed hospital	Director	8	4	12
	%	7.7%	10.5%	8.5%
	Non-director	27	7	34
	%	26.5%	18.4%	24.1%
90-bed hospital	Director	1	-	1
	%	0.9%		0.7%
	Non-director	2	2	4
	%	1.9%	5.3%	2.8%
120-bed hospital	Director	-	1	1
	%		2.6%	0.7%
	Non-director	-	1	1
	%		2.6%	0.7%
Total		103 (100%)	38 (100%)	141 (100%)

Table 6.8 Number of the physicians who work in general or regional hospitals by type of graduations and by sex

Sex	Rural Recruitment				Entrance Examination		
	PH/RH in same province	PH/RH in the other province	others	Total	PH/RH	Others	Total
Male	34	16	173	223	174	219	393
%	8.6%	4.2%	44.9%	57.7%	36.9%	46.4%	83.3%
Female	26	21	116	163	44	35	79
%	6.8%	5.5%	30.1%	42.3	9.3%	7.4%	16.7%
Total	60	37	289	386	218	254	472
%	15.3%	9.6%	75.1%	100%	46.2%	53.8%	100%

Note: PH = provincial hospitals, DH= regional hospitals

Table 6.9 The workplace of the physician from both program of education, 1981-1990

Workplace	Type of Physicians		Total
	Rural recruitment	Entrance examination	
Community hospital	103	38	141
%	26.7%	8.3%	16.6%
Large hospital	97	219	316
%	25.1%	46.2	36.7%
Private sector	175	210	385
%	45.3%	44.5%	44.9%
Others	11	5	16
%	2.8%	1.1%	1.9%
Total	386	472	858
	100%	100%	100%

Table 6.10 Number of physicians who still work in community hospitals by sex

Workplace	Sex	Type of physicians		Total
		Rural Recruitment	Entrance Examination	
Community hospital	Male	79	38	117
		(20.5%)	(8.1%)	(13.6%)
	Female	24	0	24
		(6.2%)	(0.0%)	(2.8%)
Others	Male	144	355	499
		(37.3%)	(75.2%)	(58.2%)
	Female	139	79	218
		(36.0%)	(16.7%)	(25.4%)
Total		386	472	858
		(100%)	(100%)	(100%)

Table 6.11 Workplace of physicians from Rural Recruitment Project

Sex	Workplace						
	Community hospital	PH/RH in same province	PH/RH in other province	Private sector	domicile change	other	Total
Male	79	33	17	57	30	7	223
%	35.6%	14.9%	7.2%	25.7%	13.5%	3.2%	100.0%
Female	24	26	21	38	50	4	163
%	14.7%	16.0%	12.9%	23.3%	30.7%	2.5%	100.0%
Total	103	59	38	95	80	11	386
%	26.8%	15.3%	9.6%	24.7%	20.8%	2.9%	100.0%

Note: Domicile Change = move to other provinces but workplace are not known

Table 6.12 The position of the physcians by type of graduation and batches

Batch	Position	Type of Physiciuans	
		Rural recruitment	Entrance examination
batch 1	Director	5	4
	% of batch of each type	100%	100%
	Non-director	-	-
	% of batch of each type	-	-
batch 2	Director	4	2
	% of batch of each type	66.7%	66.7%
	Non-director	2	1
	% of batch of each type	33.3%	33.3%
batch 3	Director	4	-
	% of batch of each type	80%	-
	Non-director	1	4
	% of batch of each type	20%	100%
batch 4	Director	2	1
	% of batch of each type	40%	50%
	Non-director	3	1
	% of batch of each type	60%	50%
batch 5	Director	5	1
	% of batch of each type	41.7%	25.0%
	Non-director	7	3
	% of batch of each type	58.3%	75.0%
batch 6	Director	7	1
	% of batch of each type	63.6%	25.0%
	Non-director	4	3
	% of batch of each type	36.4%	75.0%
batch 7	Director	6	5
	% of batch of each type	46.2%	71.4%
	Non-director	7	2
	% of batch of each type	53.8%	28.6%
batch 8	Director	4	1
	% of batch of each type	26.8%	25%
	Non-director	10	3
	% of batch of each type	71.4%	75.0%
batch 9	Director	6	3
	% of batch of each type	42.9%	75.0%
	Non-director	8	1
	% of batch of each type	57.1%	25.0%
batch 10	Director	7	1
	% of batch of each type	38.9%	50%
	Non-director	11	1
	% of batch of each type	61.1%	50%
	Total	103	38
		100%	100%

Table 6.13 Workplaces of physicians graduated from Faculty of Medicine Ramathibodi and Siriraj Hospital

Type Of physicians	Faculty of Medicine	Workplace				Total
		Community hospital	Large public hospitals	Private sector	Others	
Entrance Examination	Ramathibodi	13	69	82	2	166
	% of Faculty	7.8%	41.6%	49.4%	1.2%	100%
Rural Recruitment	Ramathibodi	40	37	61	5	143
	% of Faculty	28.0%	25.9%	42.6%	3.5%	100%
Entrance Examination	Siriraj	26	149	128	3	306
	% of Faculty	8.5%	48.7%	41.8%	1.0%	100%
Rural Recruitment	Siriraj	63	60	114	6	243
	% of Faculty	25.9%	24.7%	46.9%	2.5%	100%
	Total	39	218	210	5	472
	%workplace	8.3%	46.2%	44.5%	1.1%	100%

Note: Data available 1996

Table 6.14 The workplaces of physicians in different batches

Workplace	Batch	Type of physicians		Total
		Entrance Examination	Rural Recruitment	
Community hospital	Batch 1	4(10.5%)	5(4.9%)	9(6.3%)
	Batch 2	3 (7.9%)	6(5.8%)	9(6.3%)
	Batch 3	5(13.2%)	5(4.9%)	10(7.0%)
	Batch 4	2(5.3%)	5(4.9%)	7(4.9%)
	Batch 5	4(10.5%)	12(11.7%)	16(11.3%)
	Batch 6	4(10.5%)	11(10.7%)	15(10.6%)
	Batch 7	6(15.8%)	13(12.6%)	19(14.0%)
	Batch8	4(10.3%)	14(13.6%)	18(12.7%)
	Batch 9	4(10.5%)	14(13.6%)	18(12.7%)
	Batch 10	2(5.3%)	18(17.5%)	20(14.2%)
	Total	38	103	142(100%)

Table 6.14 The workplaces of physicians in different batches (cont.)

Workplace	Batch	Type of physicians		Total
		Entrance examination	Rural Recruitment	
Large Public Hospitals	Batch 1	22(10.1%)	3(3.1%)	25(7.9%)
	Batch 2	20(9.2%)	7(7.2%)	27(8.6%)
	Batch 3	15(6.9%)	9(9.3%)	24(7.6%)
	Batch 4	22(10.1%)	5(5.2%)	27(8.6%)
	Batch 5	21(9.6%)	5(5.2%)	26(8.3%)
	Batch 6	19(8.7%)	7(7.2%)	26(8.3%)
	Batch 7	23(10.6%)	19(19.6)	42(13.3%)
	Batch8	28(12.8%)	12(12.4%)	40(12.7%)
	Batch 9	27(12.4%)	18(18.6%)	45(14.3%)
	Batch 10	21(936%)	12(12.4%)	33(10.5%)
	Total	218(100%)	97(100%)	315(100%)
Private Sector	Batch 1	13(6.2%)	6(3.4%)	19(4.9%)
	Batch 2	15(7.1%)	4(2.3%)	19(4.9%)
	Batch 3	26(12.4%)	6(3.4%)	32(8.3%)
	Batch 4	20(9.5%)	16(9.1%)	36(9.4%)
	Batch 5	16(7.6%)	15(8.6%)	31(8.1%)
	Batch 6	25(11.9%)	16(9.1%)	41(10.6%)
	Batch 7	22(10.5%)	13(7.4%)	35(9.1%)
	Batch8	20(9.5%)	19(10.9%)	39(10.1%)
	Batch 9	20(9.5%)	30(17.1%)	50(13.0%)
	Batch 10	33(15.7%)	50(28.6%)	83(21.6%)
	Total	210(54.5%)	175(10%)	385(100%)
Others	Batch 1	1(20.0%)	-	1(6.3%)
	Batch 2	2(20.0%)	2(18.2%)	4(25.0%)
	Batch 3	-	1(9.1%)	1(6.3%)
	Batch 4	1(20.0%)	-	1(6.3%)
	Batch 5	-	-	-
	Batch 6	1(20.0%)	1(9.1%)	2(12.5%)
	Batch 7	-	3(27.3%)	3(18.8%)
	Batch8	-	1(9.1%)	1(6.3%)
	Batch 9	-	2(18.2%)	2(12.5%)
	Batch 10	-	1(9.1%)	1(6.3%)
	Total	5(100%)	11(100%)	16(100%)

Table 7.1 The MOPH executives who are and are not physicians

Position	Physicians	Non-physician
1. Minister of Public Health		✓
2. Deputy Ministers of Public Health		✓
3. Minister of Public Health Advisors		✓
4. Deputy Ministers of Public Health Advisors		✓
5. Secretary and Assistant Secretaies to the Minister		✓
6.Permanent Secretary for the Public Health	✓	
7. Deputy Permanent Secretaries	✓	
8. Director-General of the Department of Health	✓	
9. Director-General of the Department of Medical Sciences	✓	
10. Director-General of the Department of Community Disease Control	✓	
11. Director-General of the Department of Mental Health	✓	
12. Director-General of the Department of Medical Sciences	✓	
13. Secretary-General Or the Food and Drug Administration	✓	
14.Director of the Government Pharmaceutical Organization	✓	
15.Directors of Health System Research Institute	✓	
16.the Inspectors-General	✓	
17. Deputy Director-General	✓	
18. Assistant Premanent Secretaries	✓	
19.Chief Medical Officers of the MOPH	✓	
20. Director of Phraborommarajchanok Institue	✓	
21. Director of General Affairs Division		✓
22. Director of Health Policy Planning Division	✓	
23. Director of Rural health Division	✓	
24. Director of Provincial Hospitals Division	✓	

Source: Summary from the name listed of the MOPH conferences: by the year 1998-1999

Table 7.2 Physicians and non- physicians who were the past executives of the the MOPH

Position	Number (persons)	Physicians (person)	Non-physicians (person)
1. Permanent Secretary for the MOPH	20	20	-
2. Deputy Permanent Secretaries	30	29	1
3. Inspectors-General	20	16	4
4. Director-General of the Department of Medical Services	12	12	-
5. Deputy Directors-General of the Department of Medical Services	24	23	1
6. Director-General of the Department of the Communicable Disease Control	7	7	-
7. Deputy Directors-General of the Department of Communicable Disease Control	12	12	-
8. Director-General of the Department of Medical Science	12	12	-
9. Deputy Directors-General of the Department of Medical Science	18	15	3
10. Director-General of the Department of Health	14	14	-
11. Deputy Directors-General of the Department of Health	22	22	-
12. Secretary-General of the Food and Drug Administration	6	5	1
13. Deputies Secretaries-General of the Food and Drug Administration	11	6	5
13. Director of the Government Pharmaceutical Organization	6	4	2
14. Deputy Managing Director of the Government Pharmaceutical Organization	9	-	9

Source: the Name listed of the MOPH executives 1942-1992

Table 7.3 Number of physicians and population, the physician per population ratio in 4 southern provinces of Thailand by the year 1994 (only physicians in public sector)

Province	Data	Hospital		
		General / Regional hospital	Community hospital	Whole province Total
Narathi-	Number of physicians	36	9	45
wat	Number of population	94,087	469,072	563,159
	Physician per population ratio	1:2,614	1:52119	1:12,515
Pattani	Number of physicians	22	24	46
	Number of population	95,116	468,043	563,159
	Physician per population Ratio	1:4,323	1:19502	1:5721
Yala	Number of physicians	79	10	89
	Number of population	137,342	253,535	390,877
	Physician per population ratio	1:1,738	1:25353	1:4,392
Satun	Number of physicians	15	11	26
	Number of population	88,990	152,140	241,130
	Physician per population ratio	1:5932	1:13,830	1:9,274

Note: Only the populations of Thai nationality are included. The data of population are derived from Central Census Office of the Department of Local Administration, The Ministry of Interior at 31 December 1993

Table 7.4 Number of physician who receive non-private practice, fiscal year 1993

Workplaces	Number of Physicians	%
Community Hospital	379	51.2%
Provincial Chief Medical Offices	44	5.9%
Regional hospitals	130	17.5%
Provincial Hospitals	159	21.5%
Regional Health Center	27	3.6%
Department of Medical Sciences	2	0.3%
Total	739	100%

Source: Conference Report of the MOPH on 17 February 1993

Table 7.5 Detail of the work of community hospitals

No.	Quality	Community hospital
1.	**Relationship and resposibility to the community**	The first rank of hospital that is colsest to the community
2.	**Ability**	
2.1	Health Promotion and disease Prevention	50 % of total work Primary health care provider in distric and sub-distric level
2.2	Cure	Gerneral disease
2.3	Training Facilities to Health personnels	to the certificate deggree students as in provincial hospital - health students from health college of theMOPH Training to the bacholor deggree students as in provincial hospital - Medical students - Pharmacist student - Dentristy student - Nursing student Training - Health volunteers
2.4	Research	Health service research
3.	**Quality of physicians**	specialist in general practice, community medicine or preventive medicine

Source: the Hand Book of Local Health Administration, 5th: 290-293

Table 7.6 The specialties available of the first round in the year 2000

Specialy	Total Quotas	Trainng facilities
1. Family Practice	60	10
2. General Pathology	4	4
3.Anatomic Pathology	18	18
4.Clinical Pathology	5	5
5.Forensic Medicine	6	6
6.Obastretic and Gynecology	86	86
7.Internal Medicine	157	157
8.Pediatrics	102	102
9.Surgery	98	98
10.Orthopedic Surgery	71	71
11.Anesthesiology	70	70
12.Physical Medicine and Rehabilitation	19	19
13.Psychiatry	31	29
14.Radioliogy	33	33
15.Radiation Oncology	17	17
16.Nuclear Medicine	10	10
17.Diagnostic Radiology	36	36
18.Clinical Preventive Medicine	4	4
19.Occupational Medicine	2	2
20.Neurosurgery	18	25
21.Aerospace Medicine	4	4
22.Epidemiology	7	7
23.Urology	14	14
24.Pediatric Surgery	8	8
25.Neurology	19	19
26.Child and Adolescent Psychiatry	6	6
27Hematologic Medicine	10	10
28.Pediatric hematology	5	5
29.Ophtalmology	34	34
30Rhino-Otolaryngology	34	34
31.Dermatology	15	15
Total	1,002	958

Source: Thai Medical Council's announcement of residency selection: 2000

Table 7.7 Physicians, who certicicated in each specialty and sub-specialty: 1999

	Specialty	Total	%
1.	Internal Medicine	138	18.67
2.	Pediatrics	86	11.64
3.	General Surgery	76	10.28
4.	Obstretic and Gynecology	71	9.60
5.	Orthopedic Surgery	60	8.12
6.	Ophtalomology	33	4.47
7.	Anesthesiology	31	4.19
8.	Rhino-Otolaryngology	25	3.38
9.	Diagnostic Radiology	19	2.57
10.	Neurosurgery	19	2.57
11.	Cardiovascular Medicine	16	2.17
12.	Dermatology	15	2.03
13.	Neprology	15	2.03
14.	Radiology	14	1.89
15.	Urology	14	1.89
16.	Anatomic Pathology	13	1.76
17.	General Practice*	12*	1.62*
18.	Plastic Surgery	9	1.22
19.	Pulmonology	9	1.22
20.	Neurology	8	1.08
21.	Psychiatry	7	0.95
22.	Physical Medicine and Rehabilitation	7	0.95
23.	Forensic Medicine	6	0.81
24.	Pediatric Surgery	6	0.81
25.	Pediatric Cardiology	4	0.54
26.	Preventive Medicine in Epidemiology	3	0.41
27.	Clinical preventive Medicine	3	0.41
28.	Preventive Mediciane in PublicHealth	3	0.41
29.	Colon and Rectum Surgery	3	0.41
30.	Pediatric Pulmonology	3	0.40
31.	Radiation Oncology	2	0.27
32.	Preventive Medicaine in Occupational Healt	2	0.27
33.	Thoracic Surgery	2	0.27
34.	Pediatric Hematology	2	0.27
35.	Clinical Pathology	1	0.14
36.	Child and Adolescent Psychiatry	1	0.14
37.	Pediatric Nephrology	1	0.14
	Total	739	100

Source: Thai Medical Announcement 48th /1999: the physicians who pass the examination and receive the certificates in each specailty and sub-specialty.

Table 7.8 Number of compulsory physicians and the quotas for residency training of the MOPH: 1995-2000

	Year					
	1995	**1996**	**1997**	**1998**	**1999**	**2000**
	Number					
Number of compulsory physicians of the MOPH	438*	593#	578†	763	751	-
Quotas of residency training of the MOPH	395	526	552	626*	574#	557†

Source: Phraborommarajchanok Institute

*, #, †, : Corresponding year that physicians can enter residency training

Table 7.9 Corresponding data of physicians and quotas of residency training

The first year of compulsory service	**Number of physicians**	**Year of entering residency training**	**Quotas**
1995	438	1998	626
1996	593	1999	574
1997	578	2000	557

Source: Health Personnel Development, Phraborommarajchanok Institute

Table 7.10 Correlation between the new graduated physicians and the graduated reidences: 1971-1993

The Yeatof first graduation	Physicians (persons)	The year of residency grauation	Physicians (persons)	%
2514	330	2520	359	108.8
2515	367	2521	222	67.3
2516	453	2522	320	70.6
2517	469	2523	346	73.8
2518	411	2524	319	77.6
2519	401	2525	304	75.8
2520	427	2526	370	86.7
2521	452	2527	354	78.3
2522	467	2528	427	91.4
2523	513	2529	463	90.3
2524	556	2530	453	81.5
2525	544	2531	488	88.7
2526	608	2532	581	95.6
2527	792	2533	648	81.8
2528	1,026	2534	624	60.8
2529	653	2535	717	111.3
2530	741	2536	737	99.5
2531	738	2537	774	104.9
2532	789	2538	813	103.1
2533	792	2539	779	98.4
2534	857	2540	837	97.7
2535	874	2541	670	76.7
2536	841	2542	788	93.7

Source: Thai Meical Council

Table 7.11 Lists of provinces that regional hospitals have P.C.10 directors and physicians meanwhile the Provincial Chief Medical Officers are onlu P.C. 9

Provinces	hospitals	Number of P.C.10 officers
Saraburi	Saraburi Hospital	2
Chonburi	Chonburi Hospital	2
Chanthaburi	Phra pokglao Hospital	1
Nakhon Ratchasima	Maharaja Nakhon Ratchasima Hospital	2
Ubon Ratchanathani	Sapphasittiprasong Hospital	4
Khon Kaen	Khon Kaen Hospital	1
Udon Thani	Udon Thani Hospital	1
Lampang	Lampang Hospital	2
Chiang Rai	Chiang Rai Prachanukhroa Hospital	2
Nakhon Sawan	Sawan Pracharak Hospital	1
Phitsanulok	Phutthachinnarach Hospital	3
Ratchaburi	Ratchaburi Hospital	1
Nakhon Pathom	Nakhon Pathom Hospital	1
Nakhon Si Thammarat	Nakhon Si Thammarat Hospital	1
Surat Thani	Surat Thani Hospital	2

Source: Health Personnel Division: the MOPH

Table 8.1 The costs of produced and imported medicine of Thailand: 1988-1996

Year	Cost of Production Million U.S.$	Costs of imported medicines Million U.S.$	Total Million U.S.$
1988	167.72	64.27	231.99
1989	209.32	82.69	292.01
1990	222.15	86.23	308.38
1991	241.44	105.41	346.85
1992	267.41	117.07	384.48
1993	295.78	126.88	422.66
1994	324.24	159.67	483.91
1995	395.52	231.91	627.43
1996	453.01	266.90	719.91
1997	505.53	288.13	793.66
1998	500.30	291.90	792.20
Total	3,582.42	1,821.06	5,403.48

Source: Drug Control division, FDA; The MOPH

Table 8.2 Structure of the committee from election of the Medical Council

Term	Committee from the MOPH(persons)	Committee from Medical Schools (persons)	Committee from other Health Facilities(persons)
1970 – 1974	1	12	-
1974 – 1978	3	8	-
1978 – 1985	5	5	-
1982 – 1983	4	5	1
1983 – 1985	6	7	1
1985 – 1987	7	8	1
1987 – 1989	10	5	-
1989 – 1991	11	4	-
1991- 1993	13	3	-
1993 – 1995	10	7	-
1995 – 1997	9	8	-
1997 – recent	6	11	-

Source: Thai Medical Council

Table 8.3 Number of private hospitals, physicians and beds.

	Year		
	2524	2535	2540
Numbers of private hospitals	294 **	445*	491**
Numbers of physicians	646**	1785*	3,606*
Numbers of beds	8,794**	-*	38,319**

Source: * National Statistic Office, the data by the year 1992. The beds are not reported.

** National Health Statistics

Table 8.4 Number of physicians needed by the advertisement: 1992-1998

	Region					
Year	Central	North	Northeastern	Southern	Eastern	Total
1992	135	0	4	9	4	152
1993	349	4	10	19	1	383
1994	549	0	0	0	0	549
1995	353	0	4	1	0	358
1996	322	8	3	8	1	342
1997	235	6	11	12	9	273
1998	268	6	4	7	3	288
Total	2,211	24	36	56	18	2,345

Source: Data from this study's survey

Table 8.5 Specialties needed by the advertisement: 1992-1998

Year	Specialties							
	Internal medicine	Surgery	Pediatrics	Ob-gyn	Orthopedic surgery	GPs	Specialty not mentioned	Total
1992	35	13	35	40	0	13	16	152
1993	57	30	40	33	9	20	194	383
1994	36	21	23	51	4	0	414	549
1995	25	7	30	44	2	31	219	358
1996	47	29	48	32	11	0	175	342
1997	63	52	26	39	1	0	92	273
1998	30	23	27	47	0	0	161	288
Total	293	175	229	286	27	64	1,271	2,345

Source: Data from this study's survey

Table 8.6 The number of newly established and expanded bed private hospitals: 1993-1997

Year	Newly established private hospital	Expand beds private hospitals
1993	31	14
1994	35	15
1995	52	19
1996	39	18
1997	29	19
Total	186	85

Source: Data from Division of Health Statistic

APPENDIX B

FIGURES

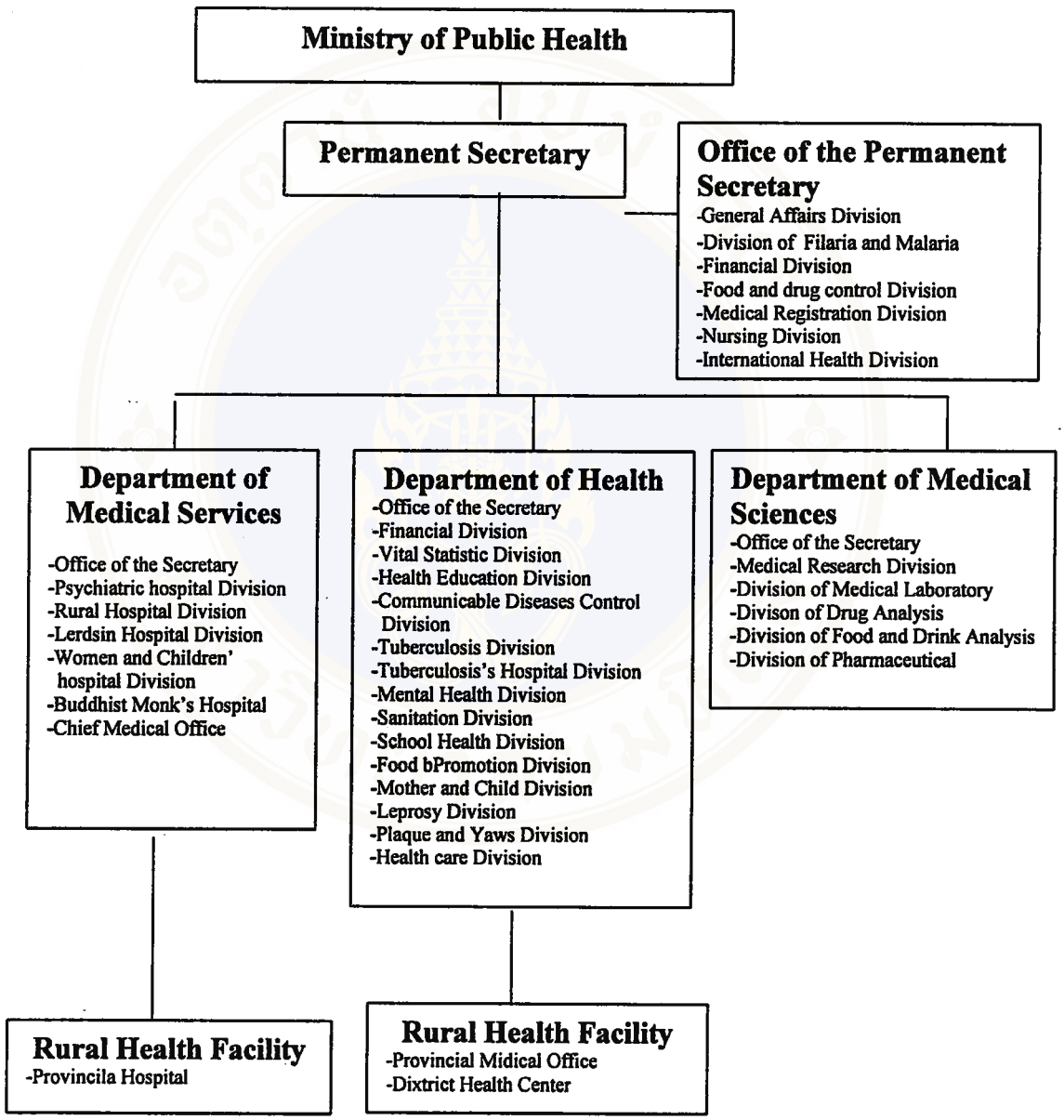

Figure 7.1 Structure of the MOPH during 1959-1973 (Source: 50 Years memorandum of the MOPH)

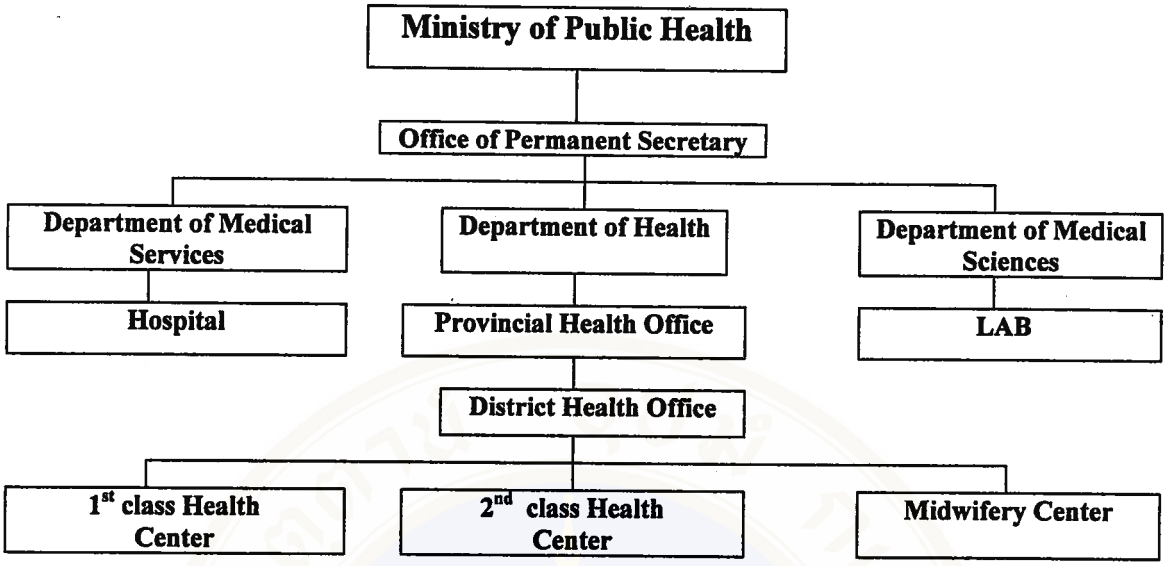

Figure 7.2 The first pattern of the structure of the MOPH proposed in the reformation during 1969-1972 (Source: 45 Years Memorandum of the MOPH)

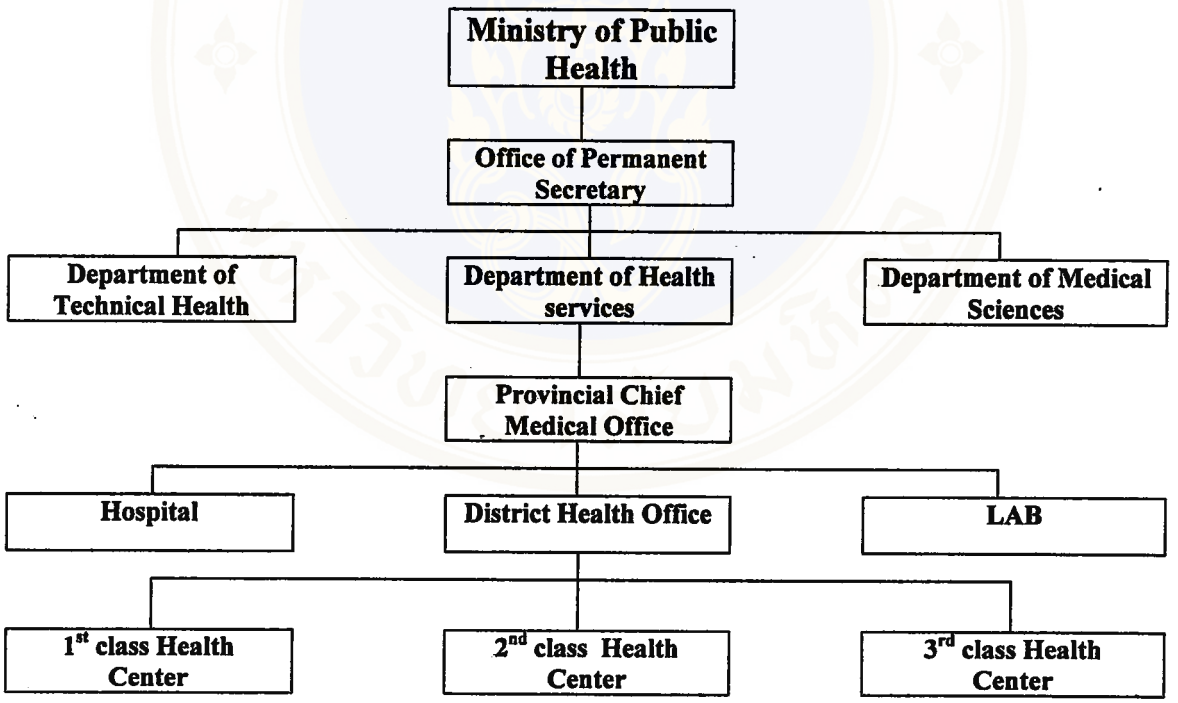

Figure 7.3 The second pattern of the structure of the MOPH proposed in the reformation during 1969-1972 (Source: 45 Years Memorandum of the MOPH)

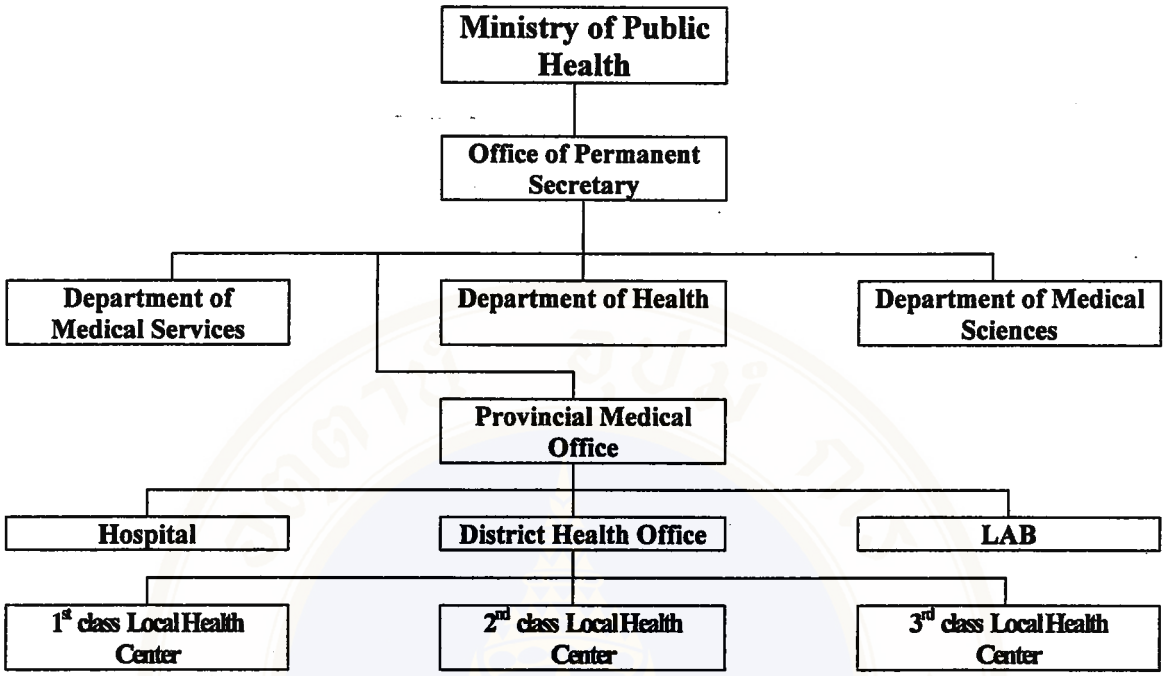

Figure 7. 4 The third pattern of the structure of the MOPH proposed in the reformation during 1969-1972 (Source: 45 Years Memorandum of the MOPH)

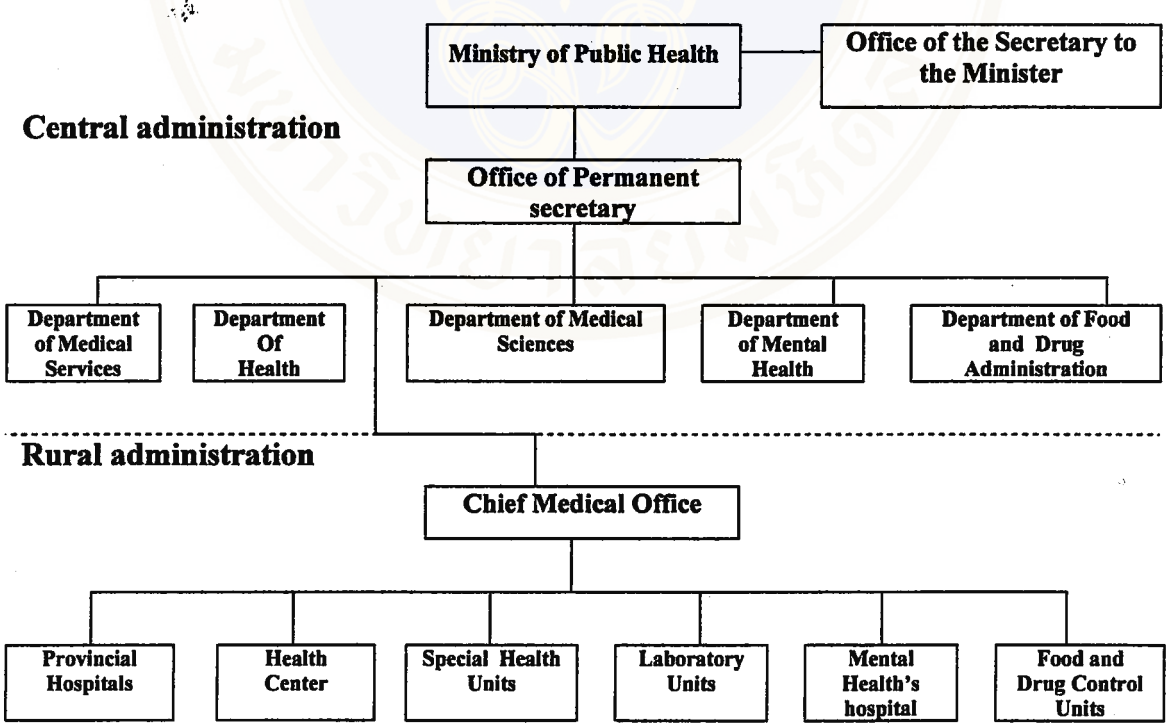

Figure 7. 5 The fourth pattern of the structure of the MOPH proposed in the reformation during 1969-1972 (Source: 45 Years Memorandum of the MOPH)

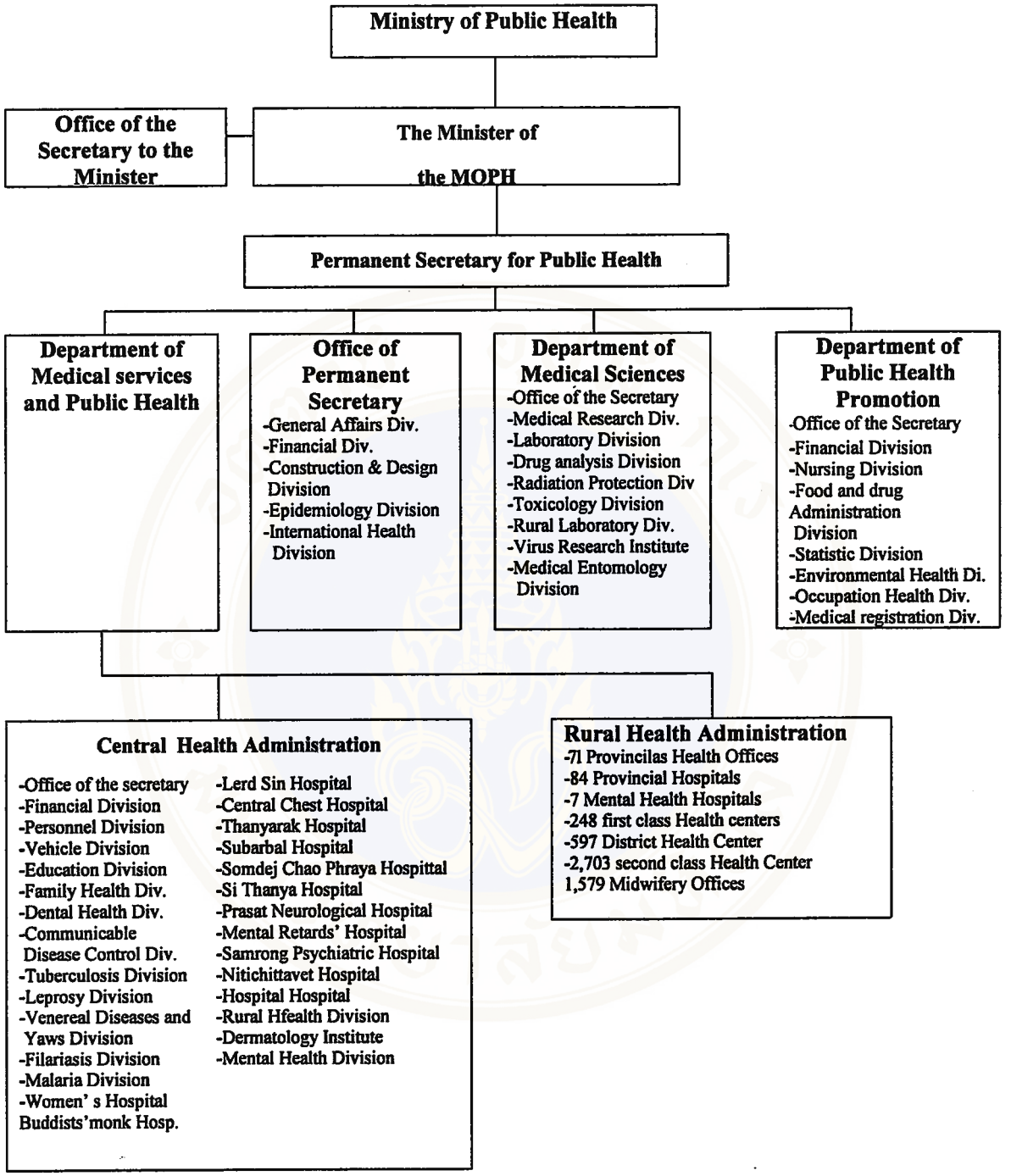

Figure 7.6 Structure of the MOPH used by late September 1972 (Source: 45 Years Memorandum of the MOPH)

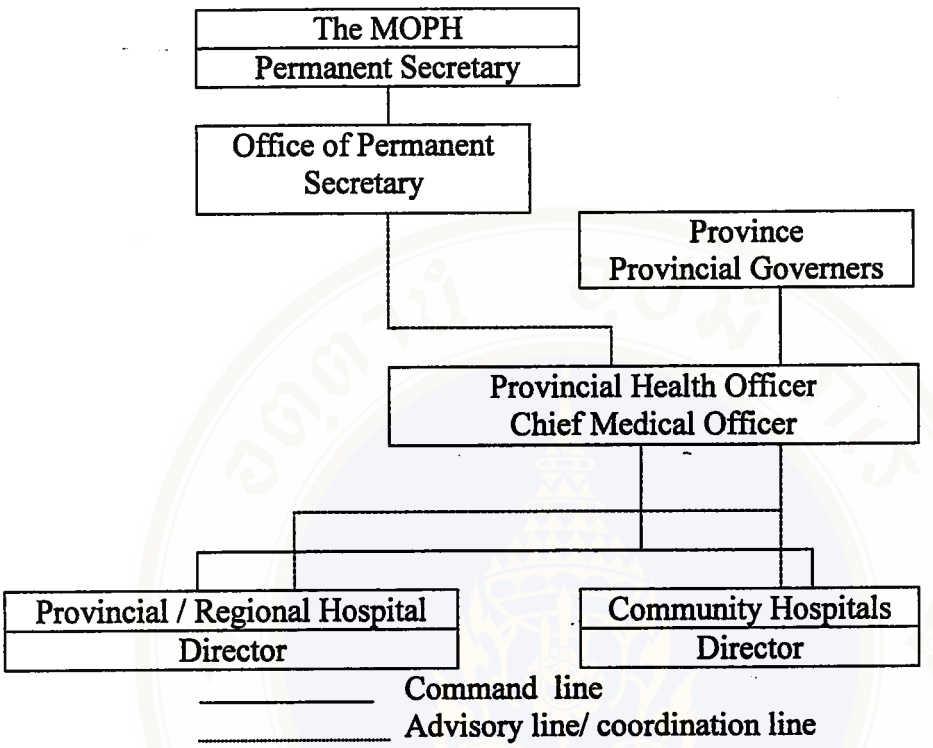

Figure 7.7 Structure of Provincial Health Facilities Administration

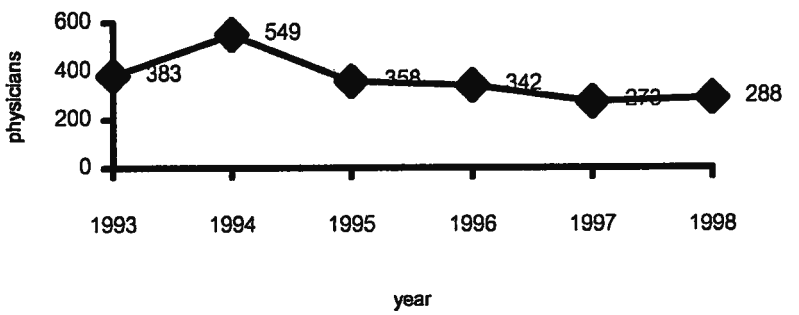

Figure 8.1 Physicians needed by private hospitals in the advertisement, 1993-1998

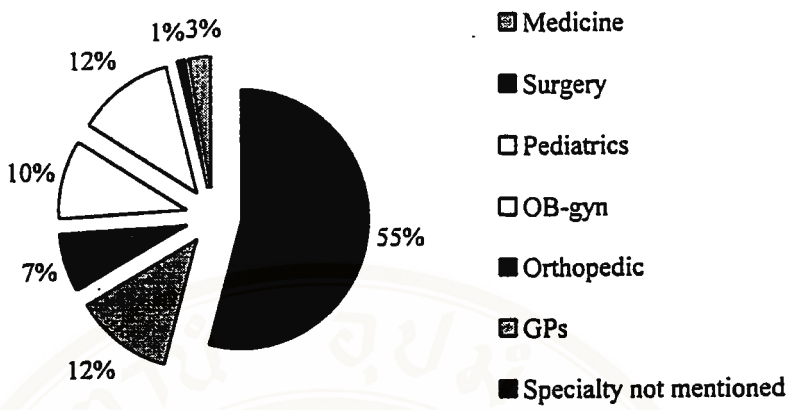

Figure 8.2 Physicians needed by specialties in advertisements, 1993-1998

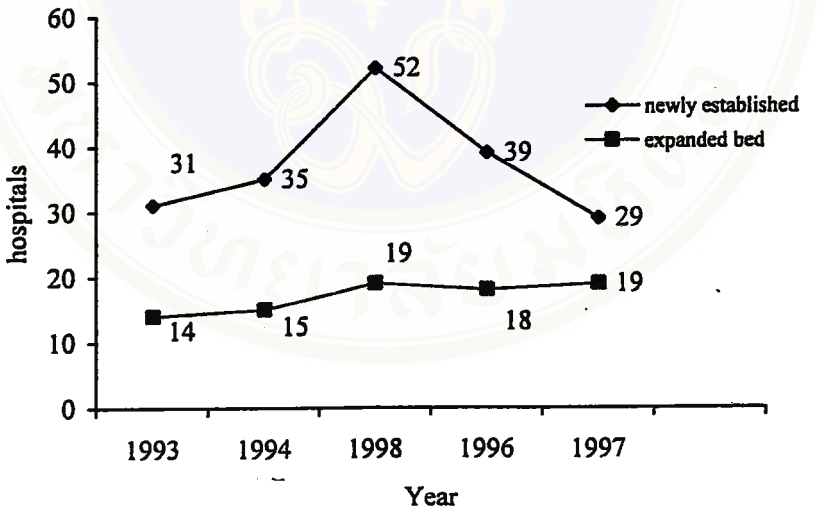

Figure 8.3 Expansion of private hospitals, 1993-1997

BIOGRAPHY

NAME	Mr. Khongdej Leethochawalit
DATE OF BIRTH	5 September 1958
PLACE OF BIRTH	Nakhon Pathom, Thailand
INSTITUTION ATTENDED	Mahidol University, 1976-1982 Bachelor of Science(General Science), 1980 Doctor of Medicine, 1982 Thai Medical Council, 1988 Certificate in General Practice Mahidol University, 1995-1999 Doctor of Philosopy (Medical and Health Social Science)
POSITION & OFFICE	1983-Present, Huaysloo Hospital Nakhon Chaisi, Nakhon Pathom, Thailand. Position: Director 1994-Present, Faculty of Medicine, Siriraj Hospital Position: Attendant Assistant. Professor