# บทความพิเศษ

# The development of medical education in Thailand.

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Medical Education in Thailand originated at the same time as Medicine. It had its foundation in "Ayuraveda" of India and was understood to come to Thailand with Buddhism. The impart of knowledge in ancient time was by apprenticeship.

At the time of the founding of Siriraj Hospital in 1888, Thailand's first medical school called the Bhaedayakorn College, was also established at the hospital. The College taught both ancient and modern medicine at the beginning, but later the teaching of ancient medicine gradually faded out, till it disappeared completely from the curriculum.

The turning point for a full-fledged modern medical education came in 1922 when Prince Mahidol of Songkla donated his personal funds to construct buildings and sent young instructors to study abroad. The Rockefeller Foundation came to the assistance at Prince Mahidol's request by funding the curriculum development programme.

Medical education in Thailand secured its roots ever since and right now there are 8 medical schools across the Country.

The National Medical Education Conferences, which were held 5 times in the past 30 years, had the most influential impact upon the development of Thai medical education. Important changes such as curriculum innovations originated as the Conferences' recommendations.

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แพทยศาสตรศึกษาในประเทศไทย เริ่มต้นพร้อมกับการแพทย์แผนโบราณที่มีพื้นฐานมาจาก "อายุรเวท" ของประเทศอินเดียและเข้าใจกันว่าได้แพร่หลายมาถึงเมืองไทยพร้อมกับพระพุทธศาสนา การศึกษาแพทย์ในยุคต้นนี้ เป็นการศึกษาแบบถ่ายทอดตัวต่อจากพ่อถึงลูกปู่ถึงหลานหรือครูถึงศิษย์

โรงพยาบาลศิริราชและโรงเรียนแพทย์แห่งแรกคือโรงเรียนแพทยากร ได้รับการสถาปนาในปี ค.ศ. 1888 (พ.ศ. 2431) โรงเรียนแพทย์แห่งแรกนี้เดิมที่สอนแพทย์ทั้งแผนโบราณและแผนปัจจุบัน ต่อมาภายหลังคนไม่ค่อย นิยมการเรียนแพทย์แผนโบราณ การเรียนแพทย์แผนโบราณจึงค่อย ๆ หายไปจากหลักสูตร

ปี ค.ศ. 1922 (พ.ศ. 2465) เป็นหัวเลี้ยวหัวต่อของการปรับหลักสูตรการศึกษาแพทย์ให้เข้ากับนานาประเทศ โดยผู้จบการศึกษาตามหลักสูตรใหม่นี้จะได้รับปริญญาแพทยศาสตรบัณฑิตจากมหาวิทยาลัยและมีระยะเวลาการ ศึกษาตามหลักสูตร 6 ปี การประสาทปริญญาแพทยศาสตรบัณฑิตรุ่นแรกมีขึ้นในปี ค.ศ. 1928 (พ.ศ. 2470) สมเด็จพระราชบิดาเจ้าฟ้ากรมหลวงสงขลานครินทร์พระบิดาทางการแพทย์แผนปัจจุบันของเมืองไทย ทรงเป็นกำลัง สำคัญในการเปลี่ยนแปลงครั้งนี้โดยทรงทุ่มเทพระราชทรัพย์ส่วนพระองค์สร้างอาคารและส่งแพทย์ไปศึกษาต่อต่าง ประเทศพร้อมกิบิทรงขอร้องให้มูลนิธิรอคกี้เฟลเลอร์เข้ามาช่วยในการพัฒนาหลักสูตร

แพทยศาสตรศึกษาได้มีวิวัฒนาการมาเป็นลำดับ ปัจจุบันมีโรงเรียนแพทย์ฉึง 8 แห่งทั่วประเทศ การประชุม แพทยศาสตรศึกษาทั้ง 5 ครั้ง ที่เริ่มต้นประชุมกันมา 30 ปีแล้ว มีอิทธิพลสูงมากในการปรับเปลี่ยนแนวทางของ แพทยศาสตรศึกษาในประเทศไทย

# **Ancient Medical Education**

Medical Education in Thailand originated at the same time as medicine. Ancient medicine in Thailand had its foundation in "Ayuraveda" of India, and was understood to come to Thailand with Buddhism. Every old treatise in ancient Thai medicine referred to Shivok Komarabhaj who was the personal physician to the Lord Buddha and who wrote the medical treatise. (1)

The impart of knowledge in ancient time was by apprenticeship, in the form of direct transfer among relatives, from father to son or grandfather to grandchildren. The method was by memorizing texts and practices of elders or teachers. Pupils had to memorize by themselves or follow the teachers to their households. Later the pupils would be proficient enough to practice alone this marked their graduation.

At the time of the founding of Siriraj Hospital in 1888, education at Bhaedhayakorn Medical College still included both traditional and modern medicine. However, there was a lack of systematic education methodology in traditional medicine. Traditional treatise did not change while in modern medical education, diagnoses and treatments adhered to scientific principles so that understanding was easier and the practice more systematic. Modern medical treatises, furthermore, were always adapted and revised with knowledge. Medical students therefore became more and more disinterested in traditional medicine, which eventually disappeared from the medical school. (2)

#### **Modern Medical Education**

Modern medical education started when Siriraj Hospital was founded in 1888. The curriculum was three years and the first group of students entered the school in 1889. The turning point for a full-fledged modern medical education started in 1922 when Prince Mahidol of Songkla (The father of the Present King) donated his personal funds to construct buildings and sent young instructors to study abroad. The Rockefeller Foundation came to the assistance at Prince Mahidol's request in 1922 by funding the curriculum development program. The improved curriculum was a 6-year program, after a secondary school diploma (Mathayom 8). The first class of M.D. graduated in 1928, and the Thai medical education spread from its secure root at this point.

The ideas and concepts of our medical education at the start in 1923 were undoubtedly influenced by American medical education since Siriraj Medical School was supported by the Rockefeller Foundation. The Foundation had a contract to send medical professors from universities in the United States to become

deans and heads of important departments, such as anatomy, physiology, medicine, surgery, gynaecology .....etc. The structure of the curriculum greatly resembled the American one, which was 2 - years of basic science and English, 2 - years of pre-clinical sciences and 2 - years of clinical subjects. This was slightly different from its American counterpart, which had 4 - years of basic science and college education before the study of pre-clinical and clinical subjects at medical schools.

# Chronological Events of Medical Education in Thailand.

To understand medical education in Thailand better, important events can be summarized as follows:-

## **Undergraduate Education**

up to 1888: Ayuraveda Traditional Medicine Transfer of knowledge by apprenticeship

1888 : Siriraj Hospital and Bhaedhayakorn Medical College founded

1915 : Chulalongkorn University (The First University) established
First Faculty of Medicine was founded at Sirirai

1922 : Contribution of Prince Mahidol of Songkla and The Rockefeller Foundation lead to the modern curriculum development at Siriraj

1923 : New medical curriculum developed

1928 : First batch of M.D. graduated

1942 : Siriraj Medical School transferred to University of Medical Sciences (later Mahidol University)

1947 : Second Medical School established at Chulalongkorn Hospital in the University of Medical Sciences (later transferred to Chulalongkorn University in 1967)

1956 : First national Medical Education Conference (Emphasis on roles of Pediatrics, Preventive Medicine and Psychiatry in curriculum)

1960 : Third Medical School at Chiang Mai in the University of Medical Sciences (later transferred to Chiang Mai University

1961 : 1 - year Compulsory Internship

 1964 : Second National Medical Education Conference (Teacher's Training encouraged, Medical Education Unit was recommended to be set up in all medical schools)

1965	: Fourth Medical School at Ramathibodi, Mahidol University
1968	: Medical council founded
1970	: Unit of Medical Education founded
	at Chulalongkorn
1971	: Third National Medical Education Conference
	(Increase number of medical schools,
	Teacher's Training emphasized, Health
	Service and Manpower Development;
	HSHD concept was introduced)
1972	: Fifth, Sixth and Seventh Medical Schools
	established at Khon Kaen, Songkla and
	the Army (Phra Mongkutklao) hospital
	(Khon Kaen announced integration of
	pre-clincal subjects)
1973	: Curriculum committee, appointed by
	the Medical Council, proposed new
	Curriculum approaches leading to strong
	discussion on relevancy
1974	: Mahidol started rural medical education
	program
1975	: Chulalongkorn started Medical Educa-
	tion for students in Rural Areas Program
	(MESRAP)
1977	: Chiang Mai started new curriculum
	similar to that of Khon Kaen
1979-80	: All Medical Schools curriculum followed
	Khon Kaen and Chiang Mai
1979	: Fourth National Medical Education
	Conference (HFA/PHC concepts intro-
	duced) Community Health Programs
	recommended in all medical schools.
	Compulsory Internship abolished

 Eighth Medical School at Srinakarinvirot University founded
 Department of Family Medicine founded at Chiang Mai

1968: Fifth National Medical Education (Community - Oriented curriculum and Problem-Based Learning Concept were introduced)

1987 : Chulalongkorn Started the third track program, The Community-Targeted Problem-Based Program.

#### **Post - Graduate Education**

#### Professional program

1969 : Medical Council accredited 13 specialist programs
 1976 : New accreditation regulation implemen-

ted (Limit number of candidates for some specialties and promote those working in provincial or rural areas)

1987 : Accreditation extended to cover 30 specialist and sub-specialist programs.

# **Academic Program**

Since 1930 there have been several academic M.S., M.Sc., DTM and H., Ph.D programs developed, mainly at Mahidol.

#### Curricular Change

Since the modern medical curriculum was established in 1923 there has been few changes in the structure and duration of the study except some reorganizations of the subjects taught and of the teaching-learning processes.

Figure 1 Structure and Duration of Study in Medical-Schools.

Year	Siriraj (1923)	Ramathibodi (1965)	Chiang Mai (1960)	Chula (1947)
1				
2	Fac.o	of Sc.	Fac.of	Fac. of Sc.
3				
4		Fac. of	f Sc.	

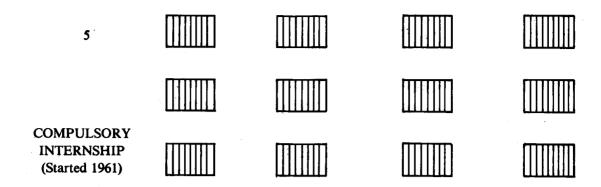
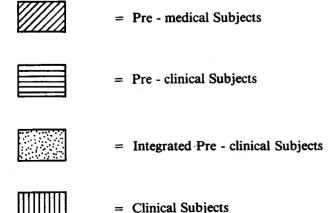


Figure 2 Structure and Duration of Study in Medical Schools (cont'd)

Year 1	KHONKAEN (1972) Fac. o	(1972)	PHRA MONGKUT (1972)
2			Fac. of Sc.
<b>3</b>			
4			c. of Sc.
5			
6			
COMPULSORY INTERNSHIP			

Figure 3 Model of Medical Curriculum at Present (since 1979) ALL MEDICAL SCHOOLS EXCEPT KHONKAEN

Year	ALL	KHONKAEN
1		
2		
3		
4		
5		
6 NO CO	OMPULSORY INTER	RN SINCE 1985



It is noticeable that the newly developed medical schools usually planned their curricula according to the pattern of the Siriraj model which was first developed in 1923. It was only 8 years ago that the curricular structures of all medical schools had changed somewhat by contracting the 2 - premedical years to 1 year and adding one more year to the clinical experience. Because of this the compulsory internship was abolished since 1985. The reason for this change was that students from secondary schools had already acquired adequate basic scientific knowledge for further studies at universities and medical schools.

#### Innovations in Medical Education.

Several innovations in the Thai medical education lie in the area of teaching and learning methods and were influenced by the recommendations of the National Medical Education Conferences which were held periodically since 1956.

The First National Conference in 1956 brought about clearer concepts on roles of pediatrics, preventive medicine and psychiatry in medical education. As a result, pediatrics as a subject had been emphasized in the curricula, and departments of preventive medicine and psychiatry were founded in the then two existing medical schools.

The second National Conference in the year 1964 recommended integrated teaching within each discipline and among disciplines. It was suggested that teachers should encourage students to acquire attitude of self - learning; thus, teacher's training in area of pedagogy and establishment of a medical education unit in every medical school were recommended. Chulalongkorn in 1970, with WHO supports, established the first ever medical education unit to fulfill the needs for teacher's training.

Ramathibodi was founded in 1965 and the renewal of the relationship with the Rockefeller Foundation was sought. The outstanding program of Ramathibodi with the assistance of Rockefeller Foundation was the Community Medicine Program, which the medical school, affiliated to the Ministry of Public Health, sent students and interns to work and study at Bang-Pa-In District Hospital. Staff at the District Hospital acted as supervisors of the program.

In 1971, the third National Conderence recommended integration of the subjects in the curriculum and re-emphasized the teacher's training. HSMD concept of the WHO was first introduced and medical schools were encouraged to revise curricula in such a way that they were relevant to the needs of the society. In 1972, three more medical

schools were established at Khon Kaen, Songkla and Phra Mongkutklao Army Hospital. Khon Kaen was the first to develop an integrated curriculum of the pre - clinical subjects and, therefore, the clinical experience was extended to three years.

In 1973, after the student's demonstration, there was an increasing awareness of the importance of relevancy of the medical curriculum. A curriculum committee, appointed by the Medical Council, proposed 3 models of curricular approaches which brought about widespread discussion on the relevancy of the curriculum to the needs of the community. (3-5) Mahidol University started the rural medical education program in 1974 by recruiting a number of medical students from rural areas. The University set-up a selection committee composed of university staff and staff of the Ministry of Public Health to select suitable candidates by considering school performances, attitudes toward medical profession, and willingness to return to serve their villages as criteria for admission. Chulalongkorn followed the same pattern (MESRAP) in 1975, but instead of training the rural students in Bangkok, they sent them to Chonburi and Chantaburi Provincial Hospitals for the whole period of their clinical training. They are also required to work in district hospitals and health stations in the rural areas as well.

Since 1979 Chiang Mai, Khon Kaen and

Songkla had emphasized the importance of community medicine and required their students to study community medicine programs and clinical clerkship programs in district hospitals and health posts in the rural areas close to the medical schools.

Siriraj and Ramathibodi strengthened their regular programs in community medicine by extending their affiliation projects with the Ministry of Public Health to the district hospitals in Nakornpathom, Rajburi and Nakornrajsima areas.

The Fourth National Conference, held in 1979, had first introduced the Health For All and Primary Health Care concepts to all medical schools and had also re-emphasized the relevancy of the curriculum. Community health programs were then encouraged. The affiliation with the Ministry of Public Health has become more and more systematic and popular. The Department of Family Medicine was first established at Chiang Mai. The 8th medical school was founded at Srinakarinvirot University in Bangkok in 1985.

In 1986, the Fifth National Conference was held and the concepts of problem-based learning and community - based education were introduced. In 1987, Chulalongkorn, co-operated with the Royal Thai AirForce, to develop a new M.D. program so that the concepts of problem-based learning and community-based education are fully implemented.

### References

- 1. Ouay Ketusingh. Thai medicine and western medicine. (in Thai). J Med Soc Sci 1978;1 (1): 10-18
- Sood Sangvichien. End of Thai traditional medicine and beginning of Thai modern medicine. (in Thai). J Med Soc Sci 1978; 1 (1): 20-27
- 3. Editorial. New perspectives in education. (in Thai)

- Siriraj Hosp Gaz 1974 Feb; 26(2): 267-279
- 4. Charn Satapanakul. Recommendation for physician production. (in Thai). Siriraj Hosp Gaz 1974 Mar; 26(3): 439-447
- Adulya Viriyavejkul. Recommendation for physician production. (in Thai). Siriraj Hosp Gaz 1974 Apr; 26(4): 735-764