# **Original Article**

# Equivalence Determination of Qualifications and Degrees for Education and Training of Health Professions in THAILAND

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## **Abstract**

This study explores the details of the process leading to the equivalence determination of qualifications and degrees for the education and training of the health professions in Thailand. We found that the equivalence determination of qualifications and degrees are used mainly for the accreditation of educational institutes and degrees, the licensing requirements of local graduates, the certification of local specialty training programs, and the valuation of credentials for appropriate salary scales in the public service. The organizations involved in ensuring the equivalence of qualifications are the Medical Registration Division of the Ministry of Public Health, the Ministry of University Affairs, the Civil Service Commission, the professional councils and associations. The processes include the accreditation of the educational institutions, the approval of the curriculum, the automatic license approval for local graduates of the public institutes, the national licensing examination for the foreign and private sector graduates, and the approval and certification of specialty training institutes and programs. The national licensing examinations are carried out in the local language which is the main barrier for foreign practitioners. The weaknesses in the processes for the equivalence of qualification, especially on the standardization of the accreditation processes and the appropriateness of curriculum to the local health needs, have contributed to the inadequacy of the educational and training programs to meet the needs of the Thai people.

**Keywords:** equivalence; health; professional; education; registration; license; training; qualification; degree

# Introduction

People have the right to be served by qualified health personnel. Health personnel who directly provide health care to the individual, family or community should be well trained and properly maintained in order to ensure their standard practice for quality services. The processes for quality assurance of professional practice have been established in various ways with the government playing major roles. However, in this globalization era, international agreements lead to more movement of services and trades across country boundaries, and thus require more internationally accepted standards of goods and services. In the field of health services, problems are arising with questions on how professionals from a particular setting of education and environment will be able to provide qualified and appropriate services to people in different settings. The understanding of the processes for the equivalence of qualification and degrees is thus urgently needed to provide background information for development in order to meet international standards and fully participate in the international community. Thus a multicountry study on this issue using standard methods and tools developed by WHO/SEARO was organized.

This study aims at analyzing the situation of education, training, licensing and registration processes of six groups of health professionals in Thailand; including their

equivalence to internationally recognized standards. The six groups of health professions include medical, dental, pharmacy, nursing, physical therapy, and laboratory and radiological technology professions.

## Methods

Four methods were used in this study.

- 1. **Survey**: Questionnaires modified from those developed by WHO/SEARO<sup>(1)</sup> were sent to the Medical Council, Dental Council, Pharmacy Council, Nursing Council, and Medical Registration Division of the Ministry of Public Health.
- 2. **Review of documents**: Documents relating to the equivalence processes, the related acts, regulations, and statements including dissemination papers were collected from each of the aforementioned organizations and reviewed.
- 3. **Interview**: Additional qualitative information were collected by interviewing relevant staff of all aforementioned organizations as well as the Technical Division and Bureau of Private Higher Education of the Ministry of University Affairs, and the Foreign Credential Section of the Civil Service Commission.
- 4. **Study visits**: All the aforementioned institutes were visited to collect more information and to provide clarification on some unclear aspects. Staff in charge were met and discussed the situation.

## **Results**

Findings from the 4 methods of study were analysed and summarized according to the following topics:

# 1. Professionals

There are six major categories of health professions in Thailand. In each category, there are also a group of paraprofessionals or auxiliaries. The six major categories and their auxiliaries are shown in Table 1. Most of the auxiliaries, except those for nurses, are controlled under the regulations of the Ministry of Public Health, issued under each professional act, which state that they can practice only within particular circumstances under the supervision of licensed professionals<sup>(10-12)</sup>. Only the auxiliaries for the nursing professions are controlled directly by the Nursing Council<sup>(3)</sup>.

Table 1 The number and type of the six major categories of health professions and their auxiliaries, 1996

Professionals		Auxiliaries			
Categories Number		Categories	Number		
Medical Practitioner	21,139	Nurse Practitioner	1,020		
		Anesthetic Nurse	2,042		
		Community Health Officer	27.200		
2. Dentist	5,549	Dental Nurse	1,538		
3. Pharmacist	11,000	Pharmacy Technician	2,702		
4. Graduate Nurse	44,290	Technical Nurse, Practical Nurse	39,407		
5. Physical Therapist	1,339	Physical Therapy Technician	NA.		
6. Technologist					
6.1 Laboratory technologist	3,519	Laboratory technician	4,658		
6.2 Radiological	805	Radiological photographer	2,467		
technologist					

Source: Medical Council, Nursing Council, Dental Council, Pharmacy Council, Medical Registration Division, Praboromarajchanok Institute, 1996.

# 2. Legislation

The legislation related to the equivalence of qualification and degrees can be classified into two groups according to their purposes as shown in Table 2.

Table 2 Legislation related to the equivalence of qualification and degrees

Purpose	Legislation
To accredit the educational institutes and standardize curricula.	<ol> <li>The Act of Private Higher Education, 1992<sup>(4)</sup>.</li> <li>The Act of Regulation on Activities of the Ministry of University Affairs, 1997<sup>(5)</sup>.</li> <li>The Statement of the Ministry of University Affairs for Standard Criteria of Bachelor Degree Curriculum 1989<sup>(6)</sup>, Standard Criteria for Nursing Science Curriculum 1982<sup>(7)</sup>, Criteria for the Establishment and Administration of Nursing Education Institution 1984<sup>(8)</sup>.</li> <li>The Statement of the Ministry of University Affairs for the Criteria of Standard General Education: Course required by the Bachelor Degree Credential 1989<sup>(8)</sup>, the Criteria of Degree Credential 1991<sup>(8)</sup>.</li> <li>The Regulation of the Nursing Council for Accreditation of Nursing Education Institution amendment from the regulation 1986<sup>(9)</sup>.</li> </ol>
2. To control the standard of professional practice.	<ol> <li>The Act of the Control of the Practice of Art of Healing 1936, amended in 1976, including rules and regulations under the act<sup>(2)</sup>.</li> <li>The Medical Profession Act 1968, amended in 1982, including rules and regulations under the act<sup>(10)</sup>.</li> <li>The Nursing and Midwifery Profession Act 1985, including rules and regulations under the act<sup>(3)</sup>.</li> <li>The Dental Profession Act 1994, including rules and regulations under the act<sup>(11)</sup>.</li> <li>The Pharmacy Profession Act 1994, including rules and regulations under the act<sup>(12)</sup>.</li> </ol>

## 3. Committees

In each legislation for the control of professional practice, there will be a professional committee in the corresponding professional council responsible for the approval of curriculum and educational institutes, issuing licenses, controlling and monitoring professional standards of practice, giving advice in related fields to the government, and representing the professions. The characteristics of each committee are shown in Table 3.

Each committee usually appoints several specific subcommittees to carry out certain responsibilities e.g. Ethical subcommittee, or Curriculum approval subcommittee.

Table 3 Characteristics of the professional committees

Committees	Term of action (years)	Composition				Health professions in control
		ex officio	elected	appointed	honorable	
1.The Medical Council Committee	2	16	16	-	-	Medical Practitioner
2.The Dental Council Committee	3	8	13	5	-	Dentist
3.The Pharmacy Council Committee	3	7	12	5	-	Pharmacist
4.The Nursing Council Committee	4	-	12	12	6	Graduate Nurse Technical Nurse Midwifery Nurse
5.The Commission for the Control of the Practice of Art of Healing	2	1	-	29	-	Physical Therapist Laboratory Technologist Radiological Technologist General Traditional Healer Applied Traditional Healer

Source: All professional councils and the Medical Registration Division, MOPH.

# 4. Organizations

All public and private higher educational institutes and curricula need to be approved by the Ministry of University Affairs. The health professional graduates require a license to practice from the professional councils or the Medical Registration Division of the Ministry of Public Health. However, those who want to engage in government service have to have their educational institutes, curricula and license practice to accepted by the Civil Service Commission.

The organizations comprising part of the equivalence system and their corresponding functions are shown in Table 4.

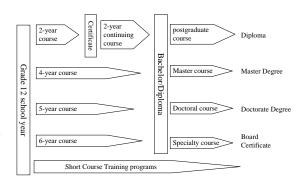
Table 4 The related organizations in equivalence system

Organizations	Functions				
1. The Ministry of University Affairs	1) Production of academic and professional work force either in government or private universities,				
2.The Ministry of Public Health	Set the standards and approve the curricula.  Controlling the professional practice under the Act for the Control of the Practice of Art of Healing.				
3.The Professional Councils	Accreditation of curricula and institutions for approval of practice license and certificate of proficiency, and controlling the standard of practice.				
4. The Consortium of each professional education institute	Standardization of educational process of each profession.				
5.The Civil Service Commission	Controlling and regulating personnel management in government sector. Those who apply for government service, including foreign graduates, required educational qualifications approved by this commission.				

## 5. Education

Those who enroll into the academic educational institutes for health professions require a minimum of 12 years basic education. Basically, the education and training system for health professions in Thailand is shown in figure 1. Annual national

entrance examination is the common recruitment processes. There are also some special recruitment processes, rural student project which e.g. involves the community in the recruitment processes. The Ministry of University Affairs is responsible for setting the standard criteria credentials. The standard criteria of academic credentials are shown in Table 5. The educational year is semesterial; Grade Point Average



(GPA) stands for total credit rating scales, with full scale at 4. Criteria for credit cumulation are:

- **regular credit**: theoretical lecture class, 1 credit=15 hrs/semester or 1 hr/wk. laboratory class, 1 credit=30-45 hrs/semester or 2-3 hrs/wk.
- **field work A**: 1 credit=45-90 hrs/semester or 3-6 hrs/wk.
- **field work B**: 1 credit=60-90 hrs/semester or 4-6 hrs/wk.
- independent study/thesis/dissertation: 1 credit=45-60 hrs/semester or 3-4 hrs/wk.
- elective courses: cover subjects stated by the curriculum.

In case of different educational systems, courses could be compared using this criteria of equivalence.

As part of nursing education, there are variety of educational courses which constitute career paths beginning from auxiliary nursing personnel under graduate study upward to the highest professional level of doctoral degree. Various distinctive courses of nursing education have been established to meet the needs of professionals.

Table 5 The standard criteria of academic credentials of health profession education

Credential	Prerequisite	Credit system	Education period and credit cumulation	Curriculum structure and Credit	Achievement evaluation	Degree awarded
of nursing		• regular • field work B	the nursing education is 2-year course of 75-85 credits	<ul> <li>general education social science and humanity subjects≥6, language≥3, science and mathematics≥6, totally ≥15</li> <li>specific education basic professional≥15, nursing professional≥42(esp. midwifery≥8)</li> <li>Elective courses ≥6</li> </ul>	GPA≥2	Certificate in Nursing Science (Technical Level)
disciplines <sup>(6)</sup> (13) including continuing education for technical nurse(2-year course) <sup>(14)</sup>	basic education (for nurse: awarded the	• field work A • field work B (for nurse)	4-year course (nurse, physiotherapist, technologist) 120-150 credits within 8 education years.     5-year course (pharmacist) 150-188 credits within 10 education years.     6-year course (medical doctor, dentist) 210-263 credits within 12 education years.     continuing education (only in nurse) 72-87 credits within 4 education years.	<ul> <li>general education proportionally covers social science, humanity, language, pure science≥30 (for nurse: social science≥6, humanity≥6, language≥6, science and mathematics≥6)</li> <li>specific education proportionally covers core specialty, basic and specific professional subjects≥90 for 4-year course (≥70 for nurse: theory≥40, practice≥20), ≥120 for 5-year course, ≥180 for 6-year course,</li> <li>≥34 (theory≥18, practice≥12),for continuation course of technical nurse,</li> <li>Elective courses≥3 (for nurse≥6).</li> </ul>		Bachelor degree of art/science /profession (for nurse Bachelor degree of Science(nursing)/ Bachelor degree of nursing science/Diploma of nursing
3. master	bachelor degree	<ul><li>same as 2.</li><li>independent study/thesis/ dissertation</li></ul>	≥36 credits within 5 education years	• optionally: thesis≥36 or thesis≥12 with course work≥12 or course work≥30-33 with independent study≥3-6	GPA≥3, course work, oral/comprehensive/th esis/independent study by external examiner.	
	bachelor degree or master degree	• same as 3.	• ≥48 credits within 5 education years after master degree or ≥72 credits within 8 education years after bachelor degree	<ul> <li>Plan 1: dissertation≥72 for bachelor or ≥48 for master prerequisite,</li> <li>Plan 2: dissertation≥48 with course work≥24 for bachelor or dissertation≥36 with course work≥12 for master prerequisites</li> </ul>	GPA≥3 course work, examination: language, doctoral candidate, oral by external examiner.	Doctor of Philosophy in Art/Science /Profession

# 6. Training

Training means a short term studying program without receipt of credentials. Professional specialty training programs as well as long term specialty training with certificate of proficiency, which needs to be accredited in order to qualify the trainees for particular recognition, have to be approved by the professional councils. Except for doctors, most professional training programs are under process of accreditation establishment. The medical council has established a very advanced system for specialty training for medical doctors since 1970. Specialty training courses and institutes are approved for 3-5 years of training. Thai Board Certificate of Proficiency in the specialties are granted to those who pass the board examination. Certain regulations are issued to control the number of specialties, quality of training, and number of trainees. In most specialties, the trainee needs to work in the health system at least 1-3 years according to the specialties that they choose. Table 6 shows the categories of specialty training and conditions.

In 1996, out of 21,139 medical doctors, there were 10,952 specialists, a proportion of 51.81%. Each year there is an average of 518 doctors, compared to 790 new graduates, enrolled into specialty training.

Table 6 Medical specialty training in Thailand, 1996

Category	No. of working years before enrollment	Number and example of specialties			
Specialty 1	0	8 specialties e.g. general practitioner, family medicine pathology, forensic, psychiatry, etc.			
Specialty 2	1 - 3*	5 specialties e.g. obstetric/gynecology, internal medicine, pediatric, surgery, orthopedic.			
Specialty 3	1 - 3*	13 specialties e.g. anesthesiology., rehabilitation, radiology, preventive medicine, neurosurgery, urology, neurology, hematology etc.			
Specialty 4	at least 3	3 specialties e.g. ophthalmology, otorhinolaryngology, dermatology.			
Specialty 5	at least 3	8 specialties e.g. thoracic surgery, plastic surgery, cardiology, nephrology,			

Source: Medical Council, Thailand 1996.

## 7. Educational institutes

Most educational institutes for health professionals are public with a few private schools. The number of institutes and graduates are shown in Table 7. Seven of the Thai medical schools are listed in the World Directory of Medical Schools, 1988<sup>(16)</sup>.

All the auxiliaries are produced from public schools, mainly under the Praboromarajchanok Institute for Health Manpower Development, Ministry of Public Health. Very few foreign graduates apply for and pass the licensing examination each year. The constitutions of educational institutes consist of several standard criteria including the infrastructure, manpower, and supporting facilities. The standard criteria of nursing education<sup>(17)</sup>, for example, comprises:

# 7.1 Building complex including:

1) study building with specified teaching and learning facilities,

<sup>\*</sup> Those with longer period of working years receive higher priority of acceptance..

- 2) dormitory and living facilities,
- 3) administrative office;
- 7.2 Field work facilities which include the hospitals, and community facilities for all fields of nursing;
- 7.3 Staff who have nursing qualifications with appropriate number in proportion to the students;
  - 7.4 Educational equipment which meets standard requirements;
  - 7.5 Library with sufficient amount of books and suitable titles.

Table 7 Educational institutes and number of annual graduates, 1996

Professionals	Number of	Institutions	Number of Graduates			
	Public Private		Public Private		Foreign	
1.Medical doctor	10	1	838	30	23	
2.Dentist	5	0	317	0	14	
3.Pharmacist	8	2	808	103	24	
4.Graduate Nurse	49	7	3,037	345	2	
5.Physical therapist	5	2	121	22	0	
6.Technologist						
6.1Laboratory	4	2	121	22	1	
6.2Radiology	2	0	130	20	0	

Source: All professional councils and Medical Registration Division, MOPH.

N/A: data not available

Regarding the staff standard, the staff norm for bachelor degree health science education is 1 full time staff to 4 students with the ratio of bachelor: master: doctoral degree at 35:60:5. For the actual situation of the public educational institutes under the Ministry of University Affairs, the number and credentials of staff are shown in Table 8.

Table 8 Number and credential of staff in public educational institutes for health science professions, 1994

Facilities	Doc	toral Ma		Doctoral		Master		Master Bachelor		helor	Total Number
	No.	%	No.	%	No.	%					
Medical doctor	1,325	53.86	937	38.08	198	8.04	2,460				
2. Dentist	62	10.42	363	61.00	170	28.57	595				
3. Pharmacist	109	21.97	310	62.50	77	15.52	496				
4. Nurse	39	5.57	584	83.54	76	10.87	699				
<ol><li>Physical therapist</li></ol>											
and technologist	16	10.81	100	67.56	32	21.62	148				
Total	1,551	35.27	2,294	52.16	553	12.57	4,398				

Source: Ministry of University Affairs, 1994.

Nevertheless, the nursing colleges under the Ministry of Public Health are severely understaffed both in numbers and qualifications. In 1996, the staff: student ratio was 1:16 with the ratio of bachelor: master: doctorate at 64:34:2.

In the case of private institutions, The Ministry of University Affairs categorized private educational institutes into 3 types<sup>(18)</sup> as follows:

- 1) **University** is supposed to provide academic and higher professional education of <u>various disciplines</u> to award every level of credential.
- 2) **Institute** is supposed to provide academic or higher professional education of <u>specific disciplines</u> to award every level of credential.
- 3) **College** is supposed to provide academic or higher professional education of some disciplines and can award credentials not higher than master degree or post-graduate diploma.

To establish a new educational institute, the applicant should submit a proposal describing the following topics<sup>(19)</sup>, i.e. name of the institution, emblem/logo, objectives, location, land area, master plan for construction, building complex, utilization of space in the complex, public utilities, security facilities, infrastructure development plan, education plan showing potential measures to ensure qualification of education, instructors and staff, prerequisites for enrollment, student's dress, curriculum to be conducted, achievement evaluation, library, educational equipment and facilities, capital investment, and administration system.

# 8. Licensing processes

The licensing processes of each category are similar with little variation. Graduates from government educational institutes are automatically granted a license to practice without any prior examination. Graduates from private institutes or foreign

graduates have to pass a national licensing examination, despite the approval of their institutes and curricula. The examinations are conducted in Thai, usually twice a year. In case of licensing for nursing professionals, the applicants should be able to speak Thai and have resided in Thailand for at least 6 months. For the medical professions, there is one private medical school, and the medical council allows its graduates

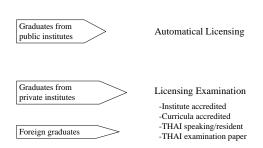


Figure 2 Licensing Processes of Health Professional

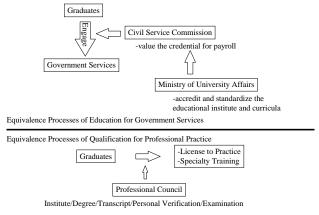
to enjoy automatic licensing if the school is able to create a partnership with a public medical school so that their students are evaluated together with the same evaluation system from the first to sixth years of education. At the moment, graduates of private medical schools still have to take licensing examinations as shown in figure 2. However, this double standard of licensing leads to wide social criticism and pressure on the professional councils to establish a system of national licensing examinations for all graduates, public or private. At present, there is no relicensing system for any profession and all the practitioners receive life time licenses.

Technologists and physical therapists do not have their own professional acts and councils. They are taken care of under the Act for Control the Practice of Art of Healing, under the responsibility of the Medical Registration Division of the MOPH.

## 9. Equivalence determination process

The equivalence determination process in Thailand has been established

mainly for the benefit of those who are applying for employment in the government services. The Subcommittee for Governmental Manpower Recruitment and Preparation of the Civil Service Commission is responsible for the consideration of the equivalence determination for appointment to public service. The purpose of the equivalence determination is to value credentials in terms of salary to be paid by government



payroll. It has been found that out of the many thousands of foreign graduates applying for the equivalence each year, only 1 % are rejected. Distance learning education provided by overseas academic institutes is not accepted by this equivalence process, because there has been no effective process of achievement evaluation.

Those local graduates who apply to work in foreign countries usually require a translation of the transcript of records, and a translation of their practicing licenses, while those who apply to continue their education in foreign countries depend upon the prerequisites of each foreign country institution. In most cases, the language examination is the essential prerequisite, e.g., TOEFL or IELTS. Medical doctors have to pass other essential examinations, e.g. ECFMG, USMLE, etc.

## **Discussion and Recommendations**

There are certain obstacles for the development of the equivalence determination processes that need to be addressed and discussed:

## 1. Standards

There are many problems encountered in the standards of the equivalence determination processes. Professional standards usually become too high to be suitable to the needs of the majority of the people in the country. Those professional standards are probably suitable for those who want to continue their education abroad or work in other developed countries. High standard graduates prefer to work in the big hospitals in the cities rather than serving the rural poor. The double standard of licensing processes and staff norms in different institutes needs to be resolved as soon as possible. Besides, the existing system is not efficient enough for continuous monitoring and evaluation of the situation of the standards of each institute, public or private.

## 2. Competition

In the situation of strong competition among educational business entities and the rapid economic growth within the country, the qualifications of manpower production becomes more important. A number of private educational institutes have been established. Meanwhile foreign educational institutes have been presenting themselves as international schools/institutes. While health care provision has been viewed more as for the public good under professional ethics, than as a profit making

business, stronger quality control is required by the government and professional organizations.

Professional conflicts among the professions and their auxiliaries also inhibits professional career development. At the moment, except for the nursing profession, there are very few career ladders for auxiliaries to become professionals in their own field. Many of the continuing education courses are conducted to meet the needs of the auxiliaries, but very few are identified as professional career paths. This is mainly because of conflicts of professional interests.

## 3. Internationalization

The Thai language is the mother tongue of the Thai people as well as being the official language of the nation. English study has been introduced in the school curriculum. Foreign language classes are offered under limited conditions. International academic courses within the country are conducted as special projects which need endorsement. No health professional education or training programs are conducted in English. So the educational system seems to provide education for the local people rather than to meet the needs of the international community. Furthermore, the equivalence processes uses the Thai language. All of the examinations papers are in Thai. So very few foreigners are able to study as well as to pass licensing examinations at the moment. There is no internationalization policy for professional practice in Thailand.

## 4. Professionalism

Reluctance to accept innovations among professionals becomes more explicit which affects the equivalence of qualifications. New categories of professionals emerge which are either more specialized or of similar practice, e.g., orthopedist and chiropractor. The overlapping of functions of some categories of health personnel has occurred leading to serious conflicts, e.g. between physical therapists and rehabilitation specialists, medical technologists and clinical pathologists. In terms of control and regulation, the composition of some professional committees does not cover professions of similar discipline, e.g. no rehabilitation specialist is on the subcommittee for physical therapy.

These professional conflicts sometimes end up with work conflicts that reduce the efficiency and quality of health services. More specific clarification of jobs and roles of each professions need to be developed.

# 5. Paradigm shift

Globalization has induced rapid change of socioeconomic circumstances. Consequently, changes in health care systems and health technologies are far more advanced than the acts, regulations and equivalence determination processes used to administer those systems and technologies. However, each profession has its own conservative perspective to maintain the qualifications of education and practice in that profession. They usually their conservativeness through the attempts to protect the people from irrational utilization of technologies or from someone gaining maximum public benefit. Some emerging problems have not been recognized and handled by any professional organizations, e.g. irrational use of electromagnetic therapy and irrational promotion of health foods. The education system itself changes so slowly that it can not keep pace with social change. Finally, diversity of knowledge and the ability of the people to acquire knowledge, tends to move information power from the professional to

the lay person. Thus the education and professional institutions need a totally new way of thinking if they want to contribute efficiently to the development of the nation.

## Conclusion

Though this study found the equivalence determination system is aimed at approval of licenses to practice, it also indicates that there is a strong regulation system for educational qualifications. However, the equivalence of qualification and degrees should be ultimately based on the needs of the people (inside or outside the country), relevant to the current situation, flexible, and with continuous monitoring processes. The health professions have to recognize the necessity of active participation of the community in health care. The education system has to be reformed in order to recruit more resources and to obtain more active involvement from the community. It also calls for appropriate utilization of education technologies to empower the health work force. Otherwise the rural and poor people will continuously suffer from a scarcity of professionals suitable to their needs.

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