CHAPTER II
ESSAY ON COMPETENCIES REQUIRED FOR MPH GRADUATE

2.1 Introduction

Thailand is sub-tropical country with an estimated total population of 60 million and growth rate of 1.1% per year (Bureau of Health Policy an Planning, 1995). According to Amphon Jindawatthana and Mayuree Siripoon-Sozanski (1995), the Thai economy has grown very rapidly during the past decade, and there has been tremendous changes in the social, physical as well as biological environments. Due to more industrialization, there has been a considerable impact on individual health status and the overall health system. This situation has lead to a socioeconomic transition and an epidemiological transition of health problems also occurred from communicable diseases to non-communicable diseases such as heart disease, cancer, stroke and traffic accidents. New health problems have emerged, such as, AIDS, substance abuse, stress-related illness and diseases associated with occupational and environmental hazards.

According to the same authors, with the rapid development of socio-economic status of the general population, there has been significant development of health care services, including rapid growth of the private health care sector and concern over increasing health care costs. Because of these factors the capacities required for health personnel are also rapidly more demanding accordingly. Therefore, the plan for the production of Human Resource for Health (HRH) in all health cadres in the past has been unable unable to respond to the present and future societal needs. These authors conclude that deficits of health manpower exist in all cadres in terms of quantity and quality.

2.2 Background

World Health Assembly in 1976 had developed three fundamental principles for Human Resource for Health (WHO, 1985):

1. A hierarchy of aims
   - satisfaction of the health needs of entire populations;
   - the development of health systems to satisfy those needs;
   - the development of health manpower to serve the development of health systems.
2. Each level of health systems should be the responsibility of the most suitably trained health workers, and not of the most "highly" trained staff, while the support needed by such staff should be provided by personnel at higher levels.
3. The three main components of the health manpower development process are, planning, production and management - should be functionally integrated and these are integrated, in turn, with health systems development. Thus, the concept of the integrated development of health systems and health manpower was articulated (p. 26).

The national plan for health and human resources for health development which were carried out within the framework of the Seventh National Socioeconomic Development plan for 1992-1996, address human resource for health as the most important health resource due to its capacity to dictate and mobilize other resources in the development of public health system. According to NESDB, (1995), proper human resources for health planning is necessary to ensure effective health services in congruence with the national health plan. This human resource for health development plan calls for the acceleration of the production and development of health manpower, both quantitatively and qualitatively. The process of planning for the next five-years socioeconomic development plan is going on and the meeting report for development guidelines of the Eighth National Socioeconomic Development plan (1997-2001) describes the shifting of national development paradigm toward emphasizing "human development" as the center or main objective of national development.

To achieve the above objective, the development strategies of the Eighth National Socioeconomic Development Plan were developed in order to upgrade potential of the target group at all ages and genders, so that they have more opportunities in life and can actively participate in national development (NESDB, 1995). The plan will adjust the learning and training processes in order to enable people, (i) to think conceptually and work practically, (ii) to learn from experience and reality, (iii) and to provide a diverse and continuous education. The learning process should include integration between the international and Thai wisdom in the context of traditional culture and values, and in harmony with the nature.
In addition, both processes should generate pace of life whereby people are aware of the development, and able to continuously sustain it by themselves.

The development of human resource in terms of quantity and quality is very important in the current situation. And also the priority needs and demands of communities for specialized care and service would also indicate the need for better quality of health personnel (WHO, 1985). Therefore, quality of health personnel needs to be increased and that quality should be maintained. But Thailand still faces problems about shortage of human resource for health (HRH) in several categories. Although the production has been increased but is still not enough. Moreover, due to socioeconomic changes effecting the health situations, the shortage of certain categories of health worker remains a problem.

From all these, it is evident that there is a need to develop the human resource capacity. Even in the health system, there is shortage of trained manpower to deliver health care services. In order to meet this shortage, there is a need to train the health care personnel and the quality of training should be based on the need of current situation and possibly future health needs.

One main measure for Human Resource Management (HRM) activity to retain human resources capability is training, which involves changing behavior and expanding employee knowledge and skills through an organized process by which employees learn skills, abilities, and attitudes for better performance (Rakich, Longest, and Darr, 1992). The human resource development in health is an ongoing program in the health sector. The major categories of health manpower per population ratios are shown in the Table 2.1.

Table 2.1 The major categories of health manpower per population ratios, 1981 and 1993

Professional Category	No. Employed 1993	Rate/Population 1981	Rate/Population 1993
Doctors	13,358	1: 6,942	1: 4,295
Professional nurses	43,450	1: 2,099	1: 1,229
Technical nurses	21,414	-	1: 1,768
Dentists	2,661	1: 45,071	1: 21,561
Pharmacists	4,604	1: 18,455	1: 12,462

Source: Bureau of Health Policy and Planning, Ministry of Public Health, 1995

From this table it can be seen that there is a rapid increase in production of professional categories in the health sector. Compared to 1981, the ratio of professional categories to the total population has decreased in 1993. Among the professional categories of health manpower, the rate of production of dentists are must better than the doctors and professional nurses. In case of these two categories the rate of production need to be improve to reduce the rate per population, so that there will be better access to the health care service deliver by these categories.

The comparison of population per physician and nursing person among various countries in 1993 are shown in Table 2.2.

Table 2.2 The population per physician and nursing person among various countries in 1993

Name of the country	Population per	
	Physician	Nursing person
Thailand	4,420	910
Malaysia	2,410	470
Korea, Rep.	950	450
Viet Nam	2,300	400

Source : World Bank, 1995

In this table nursing persons include auxiliary nurses, as well as paraprofessional personnel, such as, traditional birth attendants. The inclusion of auxiliary and paraprofessional personnel provides more realistic estimates of available nursing care. According to the accompanying notes, these data are not readily comparable across countries (World Bank, 1995). However, it is possible to broadly conclude that, especially as compared with Malaysia which is likely comparable, Thailand lags behind and needs to improve the human resource development in order to reach the similar ratio of population to health personnel.

From this evidence, we find that there is a need to improve the quantity and quality of health manpower in Thailand. As we know that the quality of training is very important in order to provide good health care services which fulfill the current and future health care needs of the people. Therefore, it is important to provide continuity of relevant development of competencies through "continuing education."

2.3 Definition of " Continuing Education "

Continuing education is a part of training and a vital component in the management of the health system. According to Abbatt and Mejia (1988), it is important because it is the main way in which the quality of work done by health worker is maintained or improved. The authors quoted that "the continuing education of health workers is defined as, all the experiences after initial training, that help health care personnel to maintain or learn competence relevant to the provision of health care"(p. 9). Continuing education thus includes all learning experiences, not just refresher courses, and lasts from the completion of initial training until retirement. It is concerned with a wide range of competence, not just knowledge, that is directly relevant to the provision of health care.

Continuing education embodies the whole range of learning experiences that lead to improved performance in the delivery of health care, improve the job knowledge and skills at all levels of the organization and also the morale of the work force.

Continuing education for public health personnel consists of various courses of bachelor degree, master degree, as well as all non-degree educational programs. For considering the existing possibilities for post-graduate education, most programs require that a student attend full-time for a period of one to two years for a master degree or considerably longer for a doctorate. According to a proposal for the planned program, (CPH, 1993a):

> The officer must therefore be absent from their duties for this entire period while still receiving full pay. Both the individuals and their institutions lose from this arrangement, the individuals are divorced from on-going activities during this period and, likewise, the institutions loses their services. At the same time, learning activities are done in educational institutes separate from the real life working situation (p. 2).

One of the reasons that the public health personnel do not go to study is, because the Civil Service Commission rule that, in order to have an annual salary increase, an officer has to work at least eight months in a year. Other reasons for refusing to go for continuing education are shortage of manpower, family burden, lack of motivation and no promotion after training, etc.

In order to overcome these problems, the continuing education system should also provide all personnel equal opportunities to pursue their higher education which will strengthen their knowledge, attitude, and skills. The education offered should broaden their mind and increase their abilities in applying their knowledge into effective practices. Unfortunately, many of the existing teaching-learning courses for continuing educational of health personnel in Thailand do not lend themselves to accommodate the above concepts.

2.3.1 Innovative training program

Characteristics of innovative educational and training programs, as well as of the curricula, method, techniques and technologies to alleviate the above problems should include (Brinkerhoff, Sitthi-amorn, and Spronk, 1994):

> (1) improve equity and accessibility in educational opportunities,
> (2) integration of the learning activities with the activities in the workplace which will integrate HRH development with the health system development with application in the work place,
> (3) facilitate and encourage continuing learning as organizational culture (p. 5).

2.3.2 Approaches for the innovation

The possible approaches for the above mention characteristic may include (Brinkerhoff, Sitthi-amorn, and Spronk, 1994):

> (1) Learning at the Work Place (LWP), which involves the use of innovative materials and technologies such as computer-mediated communication (CMC) and computer-assisted instruction (CAI), and actual work situations as the learning context and content,
> (2) Enquiry and Action Learning (EAL) curricula which, similar to problem or solution-based learning and enquiry learning, replicates desirable approaches to the conduct of work and continuing education,
> (3) networking through group learning (i.e., student learning teams), continuing association with the college through annual colloquia to determine long-term impacts and sustainability of learning, and changing and continuing learning needs, and through further participation in the educational program as advisors and local supervisors, and
> (4) integration of educational program with research and other health systems development activities (p. 7).

These characteristics are taken from "A Proposal on Human Resource Development for Public Health through Learning at the Workplace (Brinkerhoff, et al., 1994)

2.3.3 Learning by application

The continuing education by studying at the work place (learning by application) was provided in many countries, such as, Canada, at the University of Calgory. In Thailand, the program of Bachelor Degree of Public Health by studying at the work place for the public health personnel who work at the health sector in fourteen provinces of Southern of Thailand is on going. This program is the responsibility of Prince of Songkhla University and Praboromarajchanok Institute, MoPH. The two-year educational program was started in 1994 and consists of two semesters in each year. In the first semester, students study in university and the second semester they will study at the community hospital and

the provincial health office. The local facilitators are utilized to supervise the students during their courses at their work place. This program of Bachelor Degree of Public Health will be evaluated this year.

2.3.4 Initiative for the Master Degree Program

In order to provide similar opportunity for Master Degree in Public Health (MPH), the Human Resource for Health Development Project was formulated. This is a joint project of the College of Public Health, Chulalongkorn University and Praboromarajchanok Institute including consultation with the Health System Research Institute (HSRI). This project was formulated to provide a program of integrated Human Resource Development (HRD) and Health System Development (HSD) through a masters degree in Public Health by study at the work place for local health personnel at the provincial level. Nursing colleges or colleges of public health under the administration of the Praboromarajchanok Institute will also be developed as learning resource centers to facilitate the operation of this project.

According to the proposal, the ten-year program is being designed with the objectives to (College of Public Health, 1995):

> (1) strengthen the health manpower development capacity of nursing/public health colleges under the administration of the Praboromarajchanok;
> (2) increase health manpower development capacities of the staff of the above mentioned colleges;
> (3) develop models of post-graduate continuing education programs for provincial health system improvement;
> (4) increase the health system development capacities of health manpower at the provincial level;
> (5) develop teaching-learning methods, materials, and technologies for learning-at-the work place (p. 2).

The pilot project will start in June 1996. The curriculum planner of the project is the College of Public Health, Chulalongkorn University which has the responsibility to develop the curriculum, and teaching-learning methods and techniques. In order to develop a realistic and practical curriculum, it is important to identify the competencies required for the MPH graduate who come to study in this course. According to Bligh, Jaques, and Piper (1981), they mentioned that the objectives of the curriculum are statement of intended achievement. The objectives normally describe what the students should be able to do after completing the course that they could not do when they begin the course. The authors thought that students can be assessed only by what they do, and (Bloom, 1954) argued that the objectives should be express in behavioural terms. Therefore, behavioural objectives will be adopted in this program.

The main advantage of having curriculum objectives are, unless we know what we want the students to achieve, we will not be able to assess that they have achieve, we will not be able to assess that they have achieved it or not, it will be difficult to select the candidates who are likely to achieve it, it will be difficult to decide what to teach and how to teach, and it will be equally difficult to test the effectiveness of teaching the intended curriculum (Bligh et al., 1975).

2.4 What is competency?

There is no standard definition for competency. It is defined in various ways by various institutes and organizations. According to the College of Public Health (1993b), we should not make a particular definition for competency. We need to "continually review the issues and possible answers while recognizing specific needs and circumstances"(p. 5).

The factors that influence the definition of competence, curriculum planners must collect data from multiple sources to ensure a wide representation. Many methods which are mention below can be used but they vary in usefulness as well as practicality. As an operational principle it would be better to use simple procedures, before moving to more complex techniques, such as: (i) analysis of public health activities (ii) self-reports (iii) observation (iiii) task analysis (Mcgaghie, Miller, Sajid, and Telder, 1978).

The desirable competencies/attributes of a health professional, whether physician or nurse or basic medical scientist, are determined by many influences. For example, expert opinion, the practice setting, the types of patients or the health care problems to be encountered, the nature of a discipline or a specialty, the stage of socioeconomic development of a community or nation (present as well as future) all deserve consideration (Mcgaghie, Miller, Sajid, and Telder, 1978).

It is necessary not only to identify but also to separate competencies that are required in an expert in a particular discipline and those demanded of a student whose goal is the practice of public health activities. In reaching a decision about the competence goals or a specific curriculum, planners may examine all or select only a few of these essential determinants, depending upon the type of health professional being trained, the curriculum level, or simply the time and resources available.

Therefore, the most important of the planning tasks is to define the competencies to which the curriculum must be directed. In such a curriculum it is essential to list the specific competency objectives, to indicate the alternative

learning resources that are available to assist students toward those objectives, and to define the assessment procedure that can be used to determine individual progress. The competencies can also be used as one of the tools or indicators for evaluation of the graduate during and after completing the course. The evaluation result can be used to further improve the course by incorporating appropriate changes.

2.5 Conclusion

In Thailand, there are deficits in all categories of public health personnel in terms of quantity and quality. The priority needs and demands of communities for specialized care and good service is increasing. And the main national development policies emphasize "human resource development." Therefore, to fulfill all these, the College of Public Health, Chulalongkorn University and Praboromarajchanok Institute, MoPH, formulated the program for Master Degree of Public Health by study at the work place for local health personnel at the provincial level. In order to have an effective program, it is important to develop a realistic and practical curriculum. The curriculum should incorporate the competencies required for the MPH graduate. These competencies should be based on certain factors, such as, health care problems, socioeconomic status of the community or nation, expert opinion and demands or needs of the students. This study aims to develop a list of competencies which can be used as objective of curriculum development and tools for the evaluation of the MPH program.