Future Policy Options for HRH Production in the Ministry of Public Health, Thailand

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Abstract

Equity, efficiency, and quality are three major targets not only for health care system development but also for the development of human resources for health. Most human resources for health in developing countries are produced by highly subsidize public institutes. Due to inequity in basic education most health science students are from better off urban families. Thus they stay mainly in the urban areas after graduation, creating inequitable distribution of health personnel. At the same time the public education institutes are subject to strong bureaucratic inefficiency and usually no systematic quality control system.

This paper analyse such situation in Thailand, and through in-depth interviews and brainstorming among concern parties, proposed several policy options including steps and conditions for implementation with the aim to improve equity, efficiency, and quality for the production of human resources for health.

Key words: manpower production, equity, efficiency, quality, human resources for health.

Introduction

Apart from providing nationwide health care services, the Thai Ministry of Public Health (MoPH) also produces many cadres of health personnel, mainly for staffing its own health services infrastructure. In 1946, the MoPH began to produce health personnel by establishing the first school of midwifery and hygiene in the Department of Medical Services. The school for junior sanitarians in the Department of Health, was also started in 1953. Since then, the expansion of health manpower production (HMP) has resulted in more than 140,000 graduates of more than 10 categories, mainly graduate and technical nurses and community health workers\(^{(1)}\). At present, the MoPH owns 43 colleges for nursing and health science education, which are capable of producing approximately 6,000 graduates annually. All of the graduates are obliged to work for the MoPH from 2-4 years. After that initial contracted period, they are free to practise where they wish. However, most of them stay with the MoPH. At least two reasons contribute to their decisions to continue with the MoPH.

Firstly, the students are mainly recruited from their hometown provinces, educated in nearby colleges, and then sent back to work in their hometown provinces. Thus they are quite familiar with the local health service infrastructure. Secondly, most of them, except nurses and midwives, do not have licences to practise in the private sector. Thus, after the obligatory period, it is not possible for them to practise privately.

While the MoPH produces mainly nurses and paramedical personnel, most professionals, i.e., medical doctors, pharmacists, dentists, laboratory technicians, and physical therapists, are trained by the universities, mainly owned by the Government. Table 1 shows the situation of annual production of health personnel. Many studies revealed that the government shoulders more than 90% of the cost of higher education including HMP\(^{(2-4)}\).
In the past decade, there were trends towards public sector reform, decentralization, and privatization. There are questions whether the MoPH should continue ownership of its portfolio of health services infrastructures including the colleges for health science education.

Proposals were offered by health economists that the public, especially the MoPH, should act only as purchaser of health services, and let the responsibility for production of health resources as well as delivery of health services come under the local governments or the private sector.

This paper aims at analyzing past and present educational activities of the MoPH, its trend regarding educational financing, and the possibility of being influenced by external public policy, i.e., public sector reform, decentralization, and privatisation. The final outcome is to synthesize alternative policy options for its future HMP. We mainly focus our analysis on the financial and educational management aspects while touching less on the issues of curriculum development, educational processes, and educational technologies.

### Table 1 Educational institutes and number of annual graduates, 1998

<table>
<thead>
<tr>
<th>Categories</th>
<th>number of institutes</th>
<th>number of graduates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>public</td>
<td>private</td>
</tr>
<tr>
<td>Medical doctors</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>Dentists</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>Graduate nurses(1)</td>
<td>49</td>
<td>7</td>
</tr>
<tr>
<td>Physical therapists</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Technologists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Laboratory</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>• Radiology</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Community health workers(2)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Technical nurses(1)</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>Dental nurses(2)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Pharmacy technicians(2)</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Laboratory assistants(2)</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

(1) Most belong to the MoPH
(2) All belong to the MoPH
Methods (Figure 1)

Figure 1 Conceptual framework and steps of work

1. Literature reviews
   This was to review the evolution of :-
   (1) Government policies on health manpower production since 1942.
   (2) Human resources development activities in the MoPH.
   (3) Socio-economic development policies and plans, especially long-term higher education plans.
   (5) Several previous research papers regarding HRH planning, financing and production.

2. Interviews
   Eighteen public health and health science opinion leaders were interviewed to obtain their visions on the future of health care systems, the current situation of HMP, and the possible alternative policy options for HMP in the MoPH. These included two ex-Ministers of Health, seven high ranking MoPH officials, three private hospital managers, four university lecturers, and two politicians.

3. Brainstorming
   The results from the literature reviews and interviews were summarised and policy options for the achievement of efficiency, quality and equity were synthesized by the research team, and then presented first to a limited number of people from concerned organizations and then to a bigger audience of public health workers and educators. The brainstorming workshop was attended by 105 participants from concerned organizations. Revision of the paper after the presentation resulted in this final paper.
Results

1. Evolution of Health Manpower Production (HMP) in the Ministry of Public Health

The evolution of HMP in MOPH can be divided into 5 phases (1):

**First phase-Initial Phase (1942 and earlier).** The production mainly emphasized on high level professionals (medical doctor and nurses) under the responsibility of the Department of Nursing, the Ministry of Moral Affairs (Dhammakarn). Most graduates were engaged in government services.

**Second phase-Unification Phase (1942-1951).** The MoPH was founded in 1942 and all HMP schools were unified. At that time there were very few private hospitals, the graduates worked mainly for the government, either the MoPH or other agencies. However, physicians were allowed to have their own private practice during non-official hours.

**Third phase-Expansion Phase (1952-1973).** More categories of paramedical personnel were produced, e.g., junior sanitarian (later on became community health workers), junior laboratory technicians, dental nurses, etc. In 1959 the production of high level professionals, i.e., medical doctors, dentists, pharmacists, laboratory technicians, physical therapists, and graduate nurses, was transferred to the newly established Ministry of University Affairs (MoUA). The MoPH was left with the production of nurses (below graduate level), practical nurses, and paramedical personnel. Most of the students received practical training in collaboration with provincial, district hospitals and health centres.

**Fourth phase-Collaborative Phase (1974-1992).** After the extensive restructuring of the MoPH, the production activities were consolidated under several departments of the MoPH. Those were 23 colleges of nursing under the Division of Nursing College Affairs, and 4 regional public health colleges under the Division of Health Training. The two divisions were under the Office of Permanent Secretary for Public Health. There were also 7 colleges of nursing and midwifery under the Department of Health and 3 colleges of nursing under the Department of Medical Services and Department of Communicable Disease Control. The Department of Medical Services and Department of Medical Sciences were responsible for many schools of specialized junior technicians, e.g., cell pathologists, medical statisticians, and junior laboratory technicians. Furthermore, there were several collaborative projects between the MoPH and the MoUA and private universities to produce specialized categories of health personnel, e.g., junior radiological technicians, and medical doctors.

**Fifth phase-Consolidation Phase (1993 to present).** The academic institutions under the MoPH were unified and came under the “Institute of Health Manpower Development (IHMD)”, which was renamed to “Praboromarajchanok Institute (PBRI)”. Meanwhile, there was an innovative project to collaborate with the MoUA in producing medical doctors for the rural areas. This project is currently managed by the “Office of Collaborative Project to Increase Rural Doctor Production (OCPIRD)”. Both the PBRI and the OCPIRD are under the largest entity in the MoPH, i.e., the Office of the Permanent Secretary. In 1997, there were about 6,000 graduates. However, due to the current economic crisis, the number of students was scaled down to around 3,000 in June 1998.

2. Evolution of Policies, Plans and Legislatures on HMP.

The literature reviews and the interviews revealed 6 major trends as follows:-

**2.1 Trends on health personnel categories**

In the early days, the emphasis was on the production of high level professionals, i.e., medical doctors, dentists, and pharmacists. Thereafter, nurses, midwives, and others were produced to provide nursing and midwifery services. At the same time the professionals become more and more specialized. The proportion of specialised medical
doctors increased from 36.5% in 1983 to 82.1% in 1995 (Figure 2)\(^{(5)}\). However, it was predicted that in the next two decades, emphasis will be placed on general competence health personnel to provide primary care at community level\(^{(6-7)}\). The production of particular categories, especially specialists, will be needed for some essential services. There is also the tendency to strengthen the potential of people and communities for self-care\(^{(7)}\).

Figure 2 Proportion of General Practitioners and Medical Specialists, 1983-1995.

Source: Health Resources Survey, Bureau of Health Policy and plan.

2.2 Trends on quantity, quality and distribution

At the beginning, the HMP aimed at tackling the problem of shortages of manpower. Subsequently, competence-based development and strengthening of basic education were emphasized to improve quality. Since 1969, policies to improve the distribution of medical doctors, e.g., compulsory engagement in government services for new medical graduates, were established. Compulsory public service was extended to dentists in 1983 and to pharmacists in 1988. This trend will most likely continue and be strategically revised relevant to the current economic crisis and future health services development. There were several studies conducted on health manpower requirements compared to supply in order to support future production\(^{(6)}\). Recently trends are focusing on the accreditation and quality improvement of medical and nursing schools.

2.3 Policies on roles of production and personnel development

During the early period of development, the MoPH played the major role in HMP. Subsequently, the MoUA became responsible for HMP to serve the general workforce market while the other ministries, such as the MoPH, Ministry of Interior, and Ministry of Defense produced human resources for their own use. Thus the public sector has played a major role in HMP (Table 1). It has been debated that this policy creates inequity. The students participating were mainly from middle or upper socio-economic classes, while the education was mostly subsidized by the government, and the graduates were finally free to have their own private practices and benefits\(^{(8)}\).
Private institutions began their role in HMP during the end of the Fifth Five-year Socio-Economic Development Plan (1982-1986). The government policy at that time stressed the collaboration between the public and private sectors. In 1986, the government policy under General Prem Tinsulanond stated “...to accelerate the manpower production responding to the extension of health services in local communities by cooperating with institutes of higher education and hospitals of either the public or private sectors”. The policy of the Sixth Five-year Development Plan (1987-1991) also stated “…reduction of government budget for unnecessary state-run activities and utilization of the potentiality of both the public and private sectors in order to enhance the capability of manpower development in either technical or managerial areas” (9).

The policies in the long-term higher education development plan also support the increasing participation of the private sector in HMP. The role of the government will be transformed by way of diminishing the ownership of academic institutions, which would be independent from the bureaucratic system. Cooperation with the private sector will be emphasized (10).

As a result of the economic crisis, under the Social Sector Program loans from ADB, there is a condition that all public universities must be free from the regular bureaucratic system within 5 years (by the year 2002) (11).

2.4 Policies on equity and opportunity in continuing education

While the production of high level professional personnel was initially emphasized, the students came mainly from the elite group (2, 8). On the other hand, for the production of lower level personnel, the recruitment was mainly from local residents, with educational opportunity therefore dispersed to other groups. This not only increased equity, but also helped in manpower distribution. It is quite evident that students in the MoPH’s institutes who are mainly recruited from the provinces, work longer in the rural areas. In addition, academic institutions were established in many regions such as Faculties of Medicine in regional universities and colleges of nursing under the MoPH in more than 30 provinces. Recently, many projects to increase educational equity and opportunity have been conducted, such as Production of Rural Doctors, Nursing Education for Local Students, Education Loan, etc. Many courses for continuing education were established both in the open and closed university. There is now an unlimited network for continuing education opportunities for health personnel.

2.5 Policies on creating motivation to work

During the early days, the only motivation was the prestige and security of being a civil servant. Later on, in 1975 when the compulsory programme for government service was started at the same time as free medical services for the indigent, overtime payments for health personnel and subsidies for medical doctors working in rural areas were initiated. Doctors in rural district hospitals were given a monthly additional subsidy equivalent to 50%-80% of their normal salaries.

In the last decade, due to rapid growth in the private health sector, internal brain drain became a serious problem. More policies and concrete actions to improve motivation were initiated. In 1992, the government policy of Prime Minister Chuan Leekpai was aimed at “strengthening the morale concurrent with proper allowance and welfare for every health personnel”. The Seventh Five-year Development Plan also stated the need for “determining proper options for improving welfare and income to reduce brain drain from the public to the private sector, which hinders health development” (9).
At first the motivations were based mainly on financial incentives and focused mainly on medical doctors in the rural districts and the rare specialists, positions that were most vulnerable to shortages. Later on, the incentives also included career development, housing and facilities, and was expanded to include other personnel.

Newly graduating medical doctors now may be paid up to 50,000 त or US$1,250 per month, if they work in very remote district hospitals. This is equivalent to the salary of the Director General of a central Department, or equivalent in real terms to ten times of their predecessors’ income 20 years ago (12).

2.6 Roles of professional organizations

The first act to control medical practices was the Medical Service Act of 1923. The Act for the Control of the Practice of Art of Healing 1936, covered the control of all professions, and is still in effect. In 1968, the Medical Profession Act was established and became the first legislation allowing for self-regulation among medical professions. Educational standards, professional standards and ethical measures were included. Subsequently, other professional acts were promulgated, e.g., Nursing Profession Act, 1985; Pharmacy Profession Act, 1989 and Dental Profession Act, 1990. All graduates from public institutes automatically received licenses to practise until 1997 when the Nursing Council started to require a licensing examination for graduates from all institutes. The results of the first national licensing examination found that 20.3% of MoPH’s nursing graduates failed as compared to 12.4% from those outside of MoPH (13, 14).

Professional organizations have increased their roles on the standardization of education and practices, especially post-graduation standards for specialty training. It should be noted that in Thailand these professional organizations remarkably do not play a role in defending professional self-benefit.

3. Analysis and synthesis of policy options in HMP

3.1 Policy issues in HMP

Regarding quality, efficiency, and equity; three main policy issues were raised from the literature reviews (15-17) as well as through interviews:

3.1.1 Financial responsibility

Who should pay for the cost of production? How to share costs among the public, students, and beneficiaries?

3.1.2. Role of institutions

Who should own the production institutes, the public or private sectors? What private institutions would be more appropriate, profit or non-profit making institutes?

3.1.3 Community and local authority participation

How can the community and local government participate in the selection of students, education management and manpower management?

In this study, only the two issues raised in 3.1.1 and 3.1.2 will be analysed.

3.2 Policy options in HMP

According to the two issues under 3.1.1 and 3.1.2, four major options may be considered (8, 15-17) as follows:
Option 1: Publicly financed and owned educational institutions. This is the current situation of most HMP in Thailand (Table 1).

Option 2: Publicly financed but privately owned educational institutions. The government may financially subsidize the private educational institutions, as is happening for private primary and secondary education. The government may provide scholarships for contracted students to study in private institutes (similar to the case where the government sends students to study in foreign private universities).

Option 3: Privately financed in public-owned educational institutes. In this case the students themselves have to pay the full cost of their education in the public colleges.

Option 4: Privately financed in privately owned education institutes. This is the current situation for most private higher education.

It should be noted that these are not the only possible options, and the four options are not mutually exclusive. In all 4 options the government may provide soft educational loans to improve equity.

3.3 Analysis of the 4 options

The strengths and weaknesses as well as the appropriate strategies for each option focused on the issues of equity, efficiency, and quality, were analysed and synthesised in Table 2.

3.3.1 Social equity. This means opportunities for local people to be selected for health science education, and opportunities for the equitable distribution of graduates.

3.3.2 Efficiency. This means fostering cost-effectiveness in production including a flexible response to changing social requirements.

3.3.3 Quality. This means opportunities to recruit qualified personnel through good quality and efficient educational processes.

Due to different eligibility requirements to perform private practice and the varied nature of services, each category of personnel can be placed on a different position on the matrix comparing individual and social benefits (Figure 3).

Social benefits include preventive/promotive services, as well as curative services to the underprivileged. Individual benefits include individual curative services, especially private services for the better-off.

Figure 3 Categorization of health personnel according to individual and social benefits.

<table>
<thead>
<tr>
<th>High Individual Benefit</th>
<th>Low Individual Benefit</th>
<th>Personal financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>professional license</td>
<td>no license to practice</td>
<td>Medical Specialist</td>
</tr>
<tr>
<td>self employed</td>
<td>lower income</td>
<td>Dentist</td>
</tr>
<tr>
<td>high income</td>
<td></td>
<td>General Practitioner</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Pharmacist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nurse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Medical Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physiotherapist</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Health Nurse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Health Technician</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Community Health Workers in Rural/Slum Areas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Services (High social benefits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Individual Care (Low social benefits)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>promotion/prevention</td>
</tr>
<tr>
<td></td>
<td></td>
<td>curative care</td>
</tr>
<tr>
<td></td>
<td></td>
<td>services for indigents/rural</td>
</tr>
<tr>
<td></td>
<td></td>
<td>services for better-off</td>
</tr>
</tbody>
</table>
Table 2 Analysis of the 4 policy options including appropriate strategies for each option.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Public Financing</th>
<th>Options</th>
<th>Private Financing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1) Public Production</td>
<td>(2) Private Production</td>
<td>(3) Public Production</td>
</tr>
<tr>
<td></td>
<td>(4) Private Production</td>
<td></td>
<td>(4) Private Production</td>
</tr>
<tr>
<td>Equity in education and distribution of health personnel</td>
<td>Students from rich families have better opportunities in education. Thus equal subsidization results in inequity. However, low tuition fees, and training in public institutes may increase chances of distribution to the underserved areas.</td>
<td>Students may come mainly from better-off families. High tuition fees (though paid by public), and training in private institutes may increase chances of concentration of personnel in the better-off areas.</td>
<td>Students from poor families will not be able to afford high tuition fees and have little chances in health science education. This may reduce the chances of distribution to the underserved areas.</td>
</tr>
<tr>
<td>Efficiency in education management</td>
<td>Public institutes have less flexibility, strict regulations, no competitiveness, and no financial motivation, thus they tend to operate on a less efficient level.</td>
<td>Private institutes are usually more flexible, competitive, and more efficient.</td>
<td>Although there may be inefficiency in public institutes, the student who pays for the education would demand more efficiency and induce competitiveness.</td>
</tr>
<tr>
<td>Quality of education</td>
<td>Due to no competition, no need for licensing examination, and limitation of government resources, the quality of education may be hampered. However, the public institutes usually recruit better quality students.</td>
<td>The system may result in less competition in student recruitment, and the quality of students may suffer. Requirement for licensing examination of graduates may more or less guarantee the quality. However, profit making private institutes may minimize costs which will affect quality.</td>
<td>Same as (1), but the self-paid students may demand better quality in education.</td>
</tr>
<tr>
<td></td>
<td>Same as (2) and (3) combined</td>
<td></td>
<td>Same as (2) and (3) combined</td>
</tr>
<tr>
<td>Issues</td>
<td>Options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Public Financing</td>
<td>Private Financing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(1) Public Production</td>
<td>(2) Private Production</td>
<td>(3) Public Production</td>
</tr>
</tbody>
</table>
| Proper strategies to strengthen the policy options | 1) Mechanisms to allow more students from underprivileged groups should be strengthened.  
2) Decentralization of educational institutions or release from normal bureaucratic system.  
3) Budget allocation by block grant based on capitation.  
4) Establish efficient quality assurance system and requirement for licensing examination for all graduates.  
5) Develop efficient integrated mechanisms to support proper manpower distribution. | 1) Same as 1), 4), and 5) in option (1).  
2) Allow only non-profit private institutions in order to ensure better quality education.  
3) Indirect subsidization to reduce cost, e.g., tax break, and investment promotion.  
4) Control tuition fees through approved maximum fee schedules with flexibility. | 1) Same as all strategies in option (1).  
2) Public financial support to students through education soft loans with customized pay-back schemes or pay back by rural public services. | 1) Same as all strategies in option (2), and strategies 2) in option (3). |
| Category of personnel most suitable to each option | 6) Non-professionals (non-license), particularly those that serve preventive and promotive health services in rural/urban slums, such as community health officers, and those that have no or low chances for private practices.  
7) Personnel with low level of requirements which are unlikely to be produced by the private sector due to high unit costs such as occupational therapist, audiologist, speech therapist, etc.  
3) Any category if proper strategies are applied. | All categories with high level of requirements which will interest private institutes. | All categories with high private benefits. | All categories with high level of requirements, and high private benefits. |

This part analyses the overall situation of the HMP in the public sector in Thailand, both within and outside MoPH.

4.1 Financial burden

It is clear in Table 3 that the students bear little cost. More than 90% of the costs are born by the government. In some institutes, e.g. under MoPH and Ministry of Interior, not only are tuition fees heavily subsidized, but the students are also given free boarding, lodging, and even clothing.

Table 3 Tuition fees as percentage of total production costs

<table>
<thead>
<tr>
<th>Category</th>
<th>Year</th>
<th>%</th>
<th>Studied by</th>
</tr>
</thead>
<tbody>
<tr>
<td>• All public university graduates</td>
<td>1985</td>
<td>6.8</td>
<td>} National Education Council(2)</td>
</tr>
<tr>
<td>• Health science graduates</td>
<td>1985</td>
<td>2.1</td>
<td>} Tangchareonsathein V. et al. (3)</td>
</tr>
<tr>
<td>• Nurses produced by the MoPH</td>
<td>1993</td>
<td>9.7</td>
<td>} Wibulpolprasert S. et al. (8)</td>
</tr>
<tr>
<td>• Community health workers</td>
<td>1995</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>• Dental nurses</td>
<td>1995</td>
<td>2.0</td>
<td></td>
</tr>
<tr>
<td>• Pharmacy technicians</td>
<td>1995</td>
<td>4.0</td>
<td>}</td>
</tr>
</tbody>
</table>

4.2 Efficiency

The financial support of the government to public educational institutions has been under strict bureaucratic regulations, which lower the motivation for efficient management. The unit costs of production in the public institutes are higher than those in the private sector (16). There is no evidence to support that public institutes deliver better quality education when compared to private institutes. The better quality output from the public institutes, if at all, is most likely due to the better quality of input, due to high competition.

4.3 Equity

As the students from middle and upper class families have higher chances of getting into the public higher education institutions, the benefits from high public subsidization mainly go to the better off in society (vertical inequity) (2, 4, 8).

4.4 Quality

Several factors affect the quality of education. Quantity and qualifications of instructors were analyzed in this study. It was found that the proportion of instructors to students in colleges of the MOPH, i.e., 1:16, was lower than the 1994 standard criteria of the MoUA, i.e., 1:4. The proportion of Doctoral: Master: Bachelor degree graduate lecturers was significantly lower in the MoPH, i.e., (0.2:3.4:6.4), as compared to the MoUA: (3.5:6.0:0.5) (16). Private institutions, although staffed with some full time lecturers, depend much on the part time and retired instructors from public institutes.

4.5 Manpower distribution

Compulsory public service for 2-4 years, by graduates from heavily subsidized public institutes, contributes to the partial success of distribution of health personnel, especially nurses, midwives, and community health workers. However, for medical doctors, pharmacists, and dentists, the success was less and somewhat temporary,
as most who came from big cities, returned to those cities after the compulsory services period.

4.6 Future trends

Evidence from the public sector reform policies, decentralization and privatisation policies, structural adjustment programs under ADB loans, and interviews all suggest the following trends:-

(1) Public higher education institutes will be free from the bureaucratic system to become “autonomous agencies”. The central government agencies, e.g., MoUA, MoPH, etc., will function as regulators, supporters, and developers of quality assurance systems.

(2) Government support to these autonomous agencies will be more flexible, in the form of block grants according to number of enrollees.

(3) Financial responsibility will be put more on the students with government support to those underprivileged groups in the form of soft loans and scholarships.

A survey among 641 lecturers of all MoPH’s education institutes in 1997 found that 86.0% agreed with the idea of increasing the autonomy of institutes. However, 25.4% still want to be in the normal bureaucratic system, while 55.9% agreed with the option of fully autonomous agencies. 76.8% of those who agreed with the option of autonomous agencies, are ready to resign from the civil service to join the new autonomous agencies.

Discussions

The MoPH produces health personnel mainly for its own use. The students are trained within its own health services infrastructure. Over the past decades, it also produced some personnel for local government health services and the private sector, but the figures are still very small. Following are the strengths, weaknesses, possible policy options and feasible steps in the implementation of MoPH’s HMP.

1. Strengths

HMP in MoPH has a close relationship with the main health services infrastructure. The students are trained in the health centres and hospitals where they will work after graduation. This suitably responds to the needs of the health services system. Production cost is lower than that of the MoUA. The system also contributes to equity and opportunity for rural people by recruiting students from their hometown provinces with the same provincial placement after graduation.

2. Weaknesses

HMP was recognized as a minor role of the MoPH. Thus, resource allocations for educational programmes are usually not high. The budget allocated for HMP is usually confined to less than 5% of the total MoPH budget. Management under a strict bureaucratic system, results in a rigid management system. Equal subsidization among students who have different economical status results in inequity.

3. Policy Options for HMP in MoPH

In addition to 1 and 2, socio-economic changes and government policy on freezing public manpower growth might lead to changes in the MoPH roles in terms of financial liability and status of its educational institutions (Figure 4).
**Figure 4** Possible policy options for HMP in MoPH

1. **Financial Support**

   - Mainly public support
   - Less public support, students responsible for more cost with government assistance
   - Students responsible for total cost with government assistance

2. **Nature of students**

   - Mainly recruited from the provinces with compulsory contract with MoPH
   - More private contract or contract to autonomous health services with variety of recruitment
   - Total private or autonomous health services contract with variety of recruitment

3. **Status of Educational Institutions**

   - Educational Institutions under MoPH
   - Autonomous Educational Institutions supervised by MoPH
   - Transform to Non-profit Private Educational Institutions
4. Feasible Steps in Transformation

In order to move from the current bureaucratic system to a future autonomous system as proposed in 3, the following steps may be considered (Figure 5).

**Figure 5** Steps for the future development of HMP in MoPH

<table>
<thead>
<tr>
<th>Step 1. Improve managerial mechanisms for efficiency and quality</th>
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<tbody>
<tr>
<td>• more decentralization of managerial authority to the institutions,</td>
</tr>
<tr>
<td>• revise managerial system, regulations and rules, to be more flexible</td>
</tr>
<tr>
<td>• government budget support by block grant based on capitation basis.</td>
</tr>
<tr>
<td>• increase tuition fees while increasing scholarship and soft loans for education</td>
</tr>
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3-5 years

<table>
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<tr>
<th>Step 2. Liberate educational institutions from the government system to become “autonomous agencies”</th>
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<tr>
<td>• Promulgation of appropriate decree.</td>
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<tr>
<td>• Develop “Institutional Board” to be responsible for overall management.</td>
</tr>
<tr>
<td>• MoPH supervises the board and gives budget support through block grant system based on capitation.</td>
</tr>
<tr>
<td>• Freeze civil servant growth, abolish all vacant and retired posts, and design new scheme for employment of new comers.</td>
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5-10 years

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<tr>
<th>Step 3. Absolutely liberated from the public sector</th>
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<tr>
<td>• Transfer to non-profit private sector.</td>
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<tr>
<td>• Contract with government to produce graduates based on capitation.</td>
</tr>
<tr>
<td>• Charge full cost to students supported by scholarships and soft educational loans</td>
</tr>
</tbody>
</table>

These three steps may be applied as a pilot project and then gradually build up experience for expansion.

Conclusion

Trends in public sector reform, decentralization, and health system reform all contribute to the high demand for the reform of HMP in the public sector, particularly in the MoPH. Major reform issues are autonomization of the educational institutions, and more private financial responsibility with scholarships and soft loans to protect the students from lower economic status families.

The current economic crisis with all the conditions under the Structural Adjustment Program will accelerate these reforms. For example, all public universities will become autonomous agencies by the year 2002. These reforms call for higher
efficiency in educational management; more equity in student recruitment, subsidization, and placement; and a system to ensure a standard quality of education. Findings and proposals in this study will be beneficial for the MoPH to plan for the reform of its HMP to ensure efficiency, equity and quality.

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