

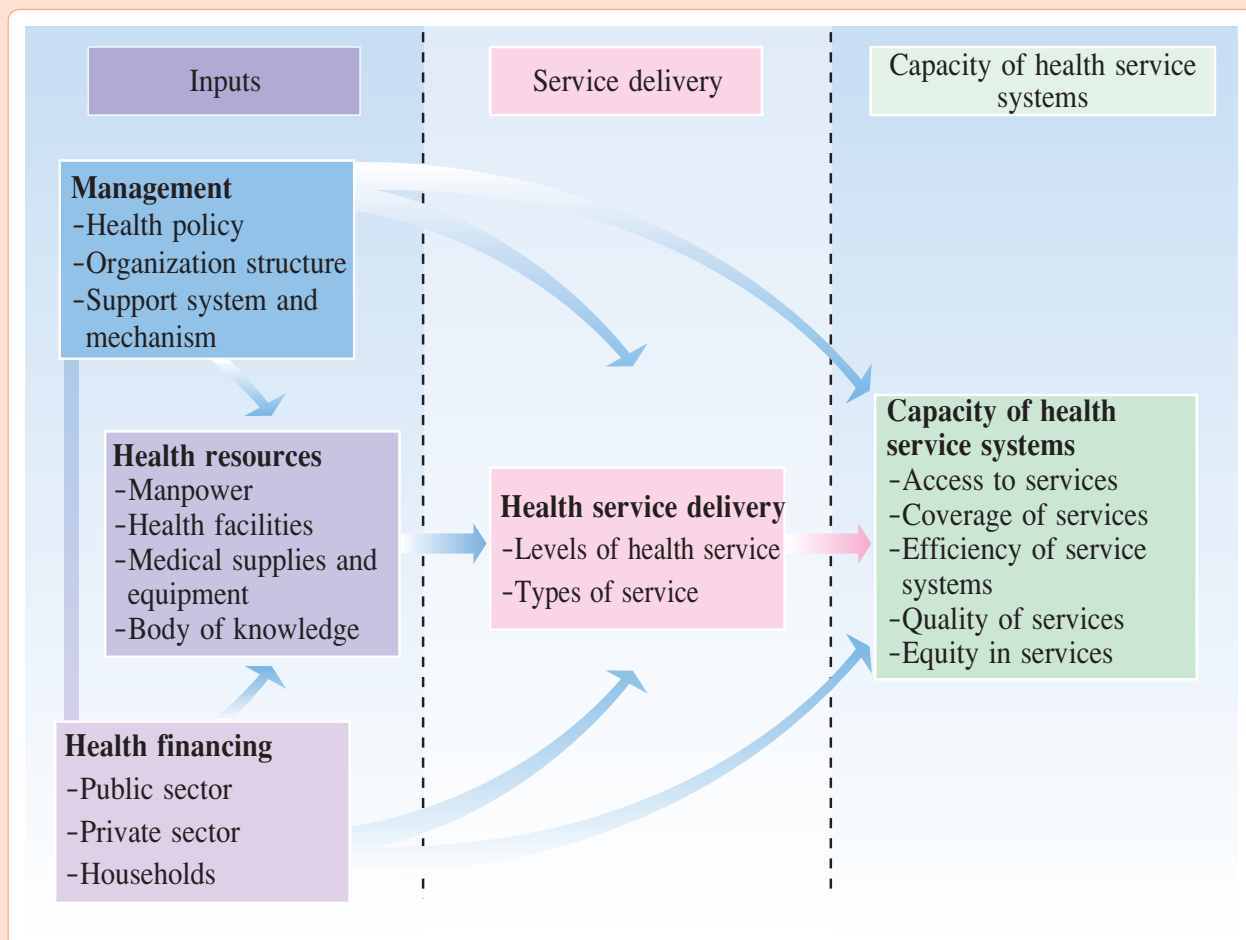


## CHAPTER 6

# HEALTH SERVICE SYSTEMS IN THAILAND

The health service systems in Thailand have continuously developed in terms of capacity building for health services, particularly the increases in health resources, including human resources for health, expansion of healthcare facilities, medical technology and equipment, and health financing. There are three major components of health service systems, namely: (1) inputs of health service systems, (2) health services delivery and (3) capacity of health service systems, which are the outputs of health service systems. The inputs include management mechanism, health resources, and health financing, which affect health service delivery and capacity of health service systems as shown in Figure 6.1

**Figure 6.1** Relationships of inputs, health service delivery and capacity of health service systems



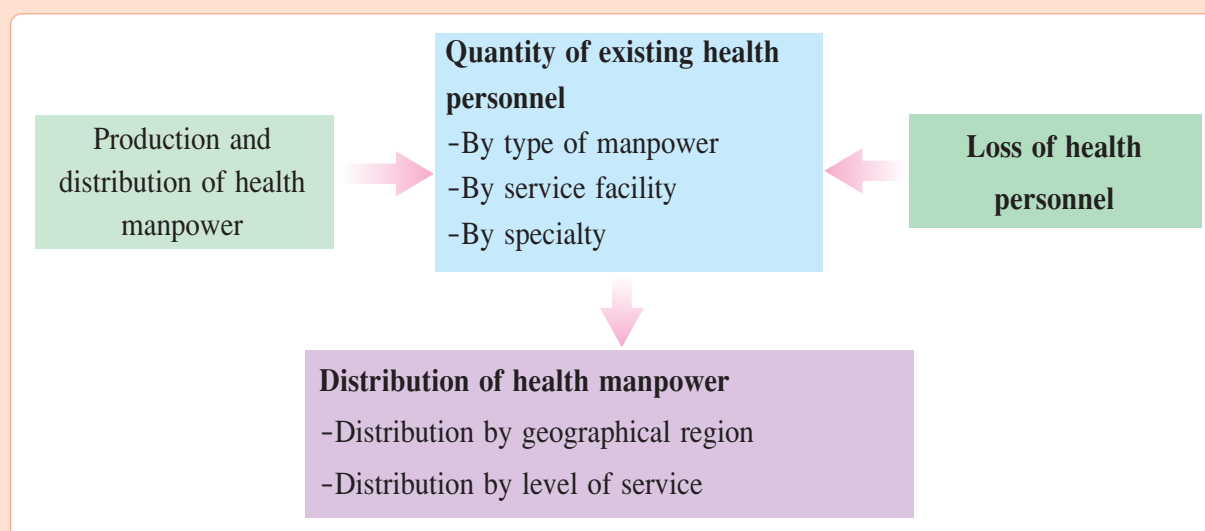
Chapter 6 deals with the information about health resources, health financing and capacity of health service systems in seven parts, i.e. (1) health manpower, (2) health facilities, (3) health technology, (4) health expenditure, (5) accessibility to health services, (6) efficiency and quality of health services delivery, and (7) equity in health services, as detailed below:

## 1. Health Manpower

Health manpower is an input that is extremely important for health service systems. The production of health personnel has been undertaken continuously, resulting in an increase in the number of health personnel and their distribution to various health facilities within and outside the MoPH. However, there are some problems in this regard, particularly the inadequacy of health personnel, compared with the suitable standard, the problem of distribution to cover all geographical areas, and the quality of personnel, which might be associated with personnel's workloads.

In analyzing the manpower situation, the following aspects are taken into consideration: quantity of existing personnel, production situation, loss situation and distribution situation, as shown in Figure 6.2.

**Figure 6.2** Aspects in the analysis of health manpower situation



### 1.1 Situation and Trends in Quantity of Health Manpower

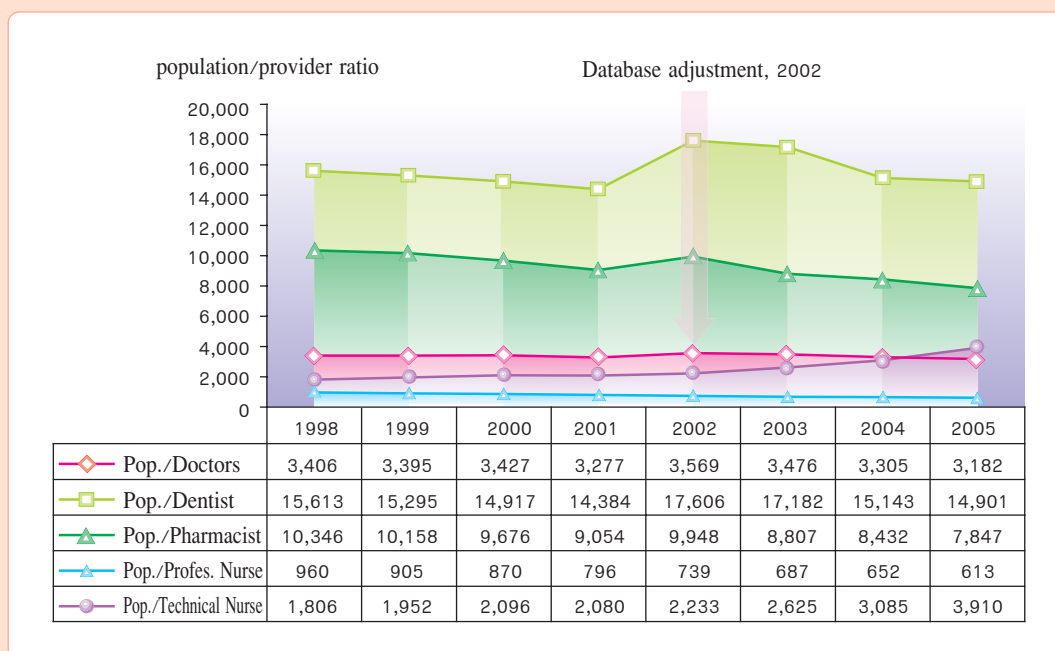
#### 1.1.1 Trends in Ratio of Population to Health Manpower by Type of Personnel

The overall situation of health manpower during the past period, using the ratio of population to healthcare provider (manpower), it was found that the trends in quantities had been improving steadily. But if considered for a short period of time from 1998 to 2005, not much change did occur (Figure 6.3).



The ratio of population to professional nurse declined while the ratio of population to technical nurse increased, partly due to changes in their status from technical nurses to professional nurses. However, some change in such trends occurred in 2002 when the population/provider ratio increased as a result of the MoPH database adjustment.

**Figure 6.3** Ratios of population to healthcare provider, 1998-2005

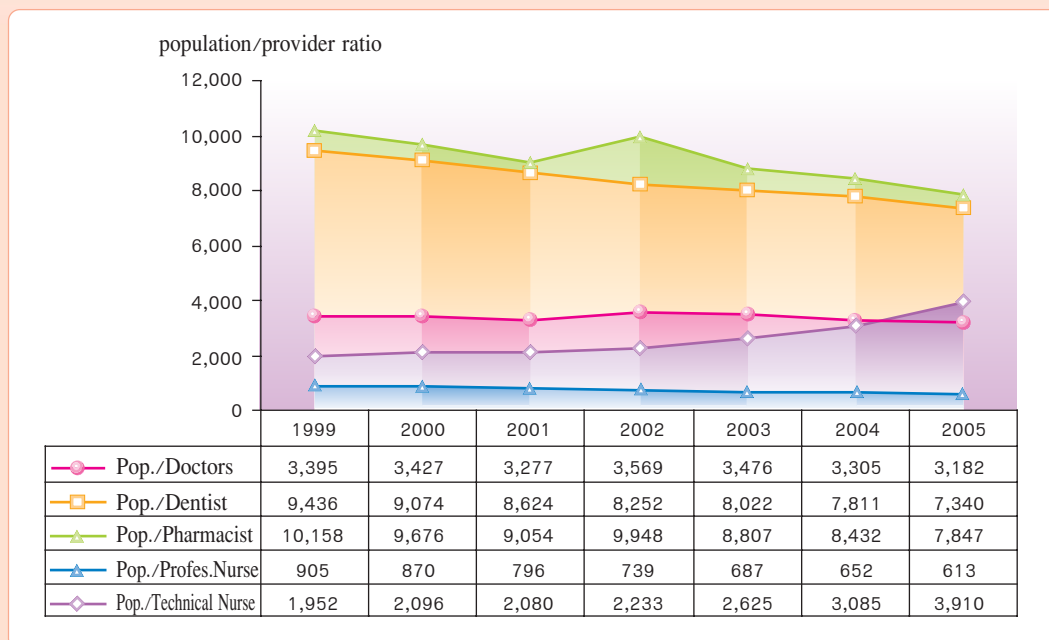


**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

Data from the MoPH health resources survey might be inaccurate due to incompleteness of data obtained, especially for dentists. According to the report on dental health personnel of the Department of Health, the population/dentist ratio was close to the population/pharmacist ratio, which tends to be improving steadily (Figure 6.4).



**Figure 6.4** Ratios of population to health manpower, 1999-2005



**Sources:** - Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.  
 - Report on Dental Health Personnel, 1999-2005, Department of Health, MoPH.

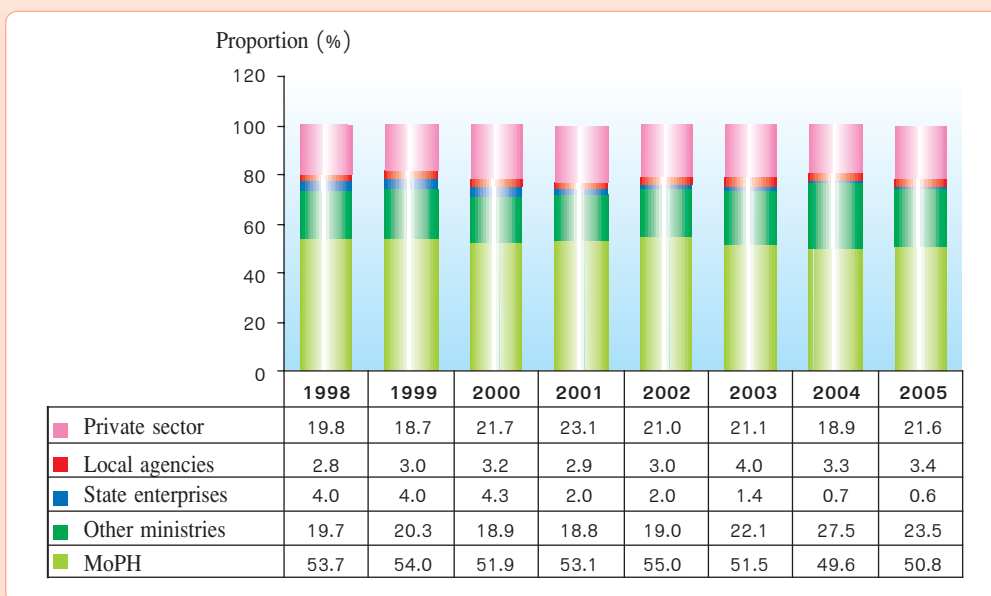
### 1.1.2 Health Manpower by Agency

#### 1) Doctors

During the 1998-2005 period, the proportion of doctors by agency had a tendency to change slightly, particularly that for the MoPH which was declining, but that in other ministries was rising, and that in the private sector rose slightly (Figure 6.5). Most of the doctors in Bangkok are in the MoPH followed by the private sector, while in other regions they are mostly under the MoPH (Figure 6.6).

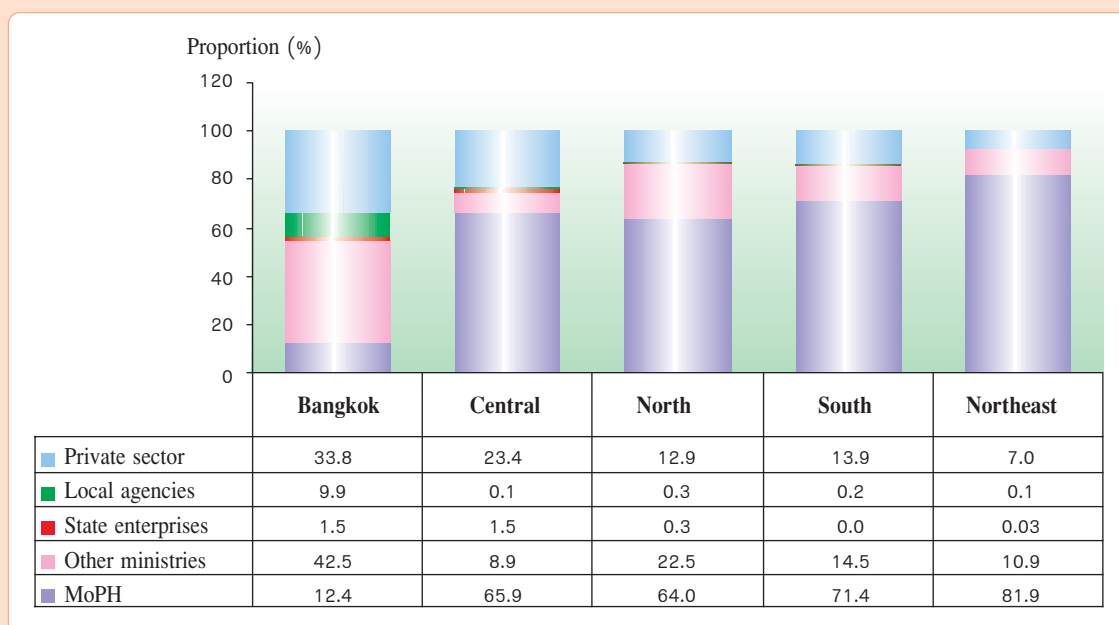


**Figure 6.5** Proportions of doctor by agency, 1998-2005



**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

**Figure 6.6** Proportions of doctors by region, 2005



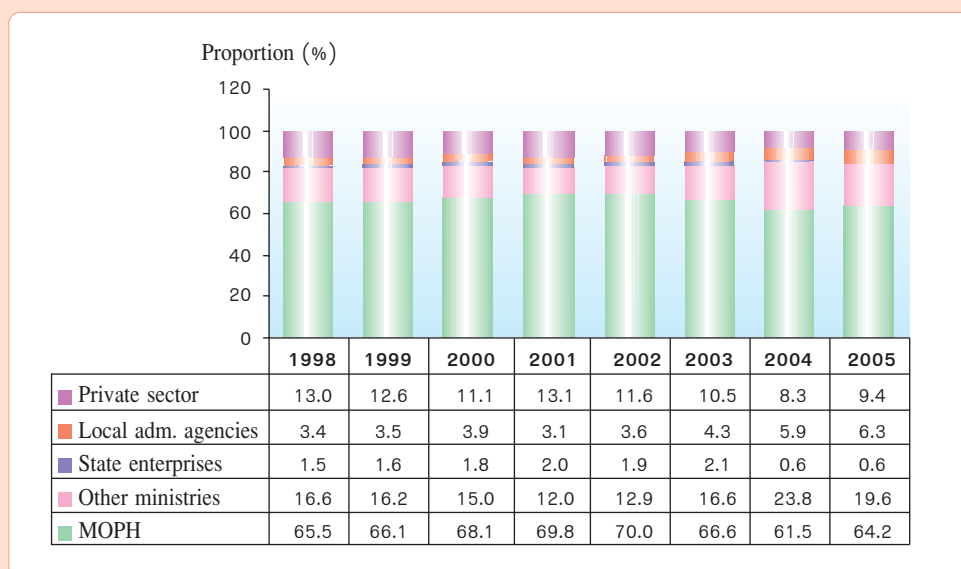
**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.



## 2) Dentists

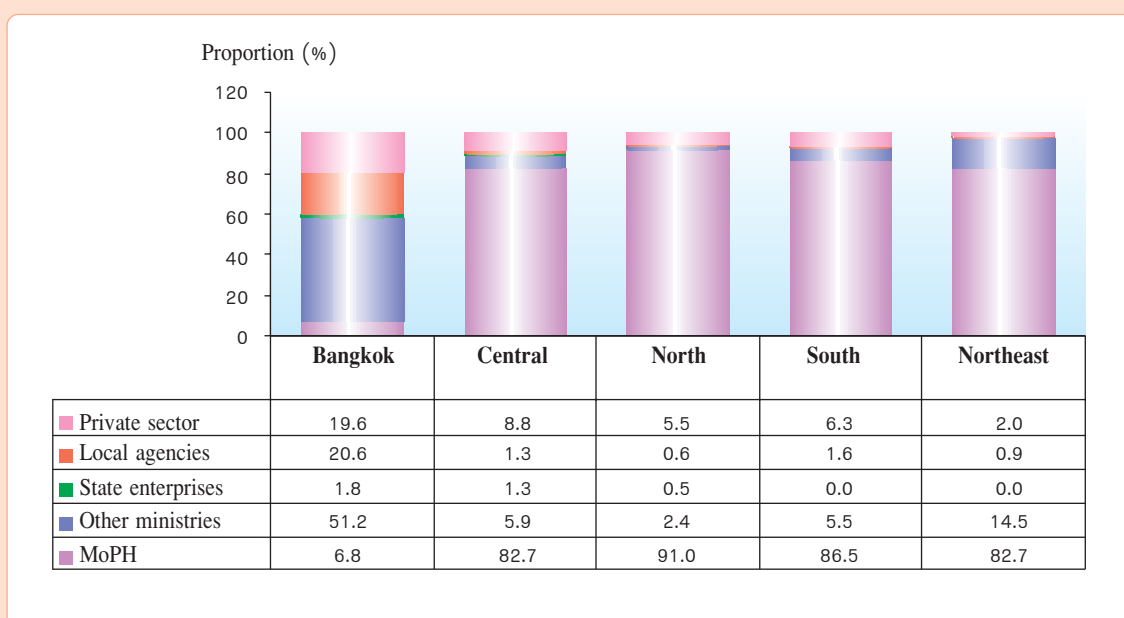
During the 1998-2005 period, the proportion of dentists by agency also had a tendency to change slightly. The dentist proportion in the MoPH did not change much while those in other ministries had a rising trend and that in the private sector declined (Figure 6.7). However, during the last eight years, the dentist proportion by agency had an unstable change. In Bangkok, most of the dentists are in other ministries, followed by local administrative agency (Bangkok Metropolitan Administration) and the private sector; in other regions, most of them are under the MoPH (Figure 6.8).

**Figure 6.7** Proportions of dentists by agency, 1998-2005



Source: Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

**Figure 6.8** Proportions of dentists by region, 2005

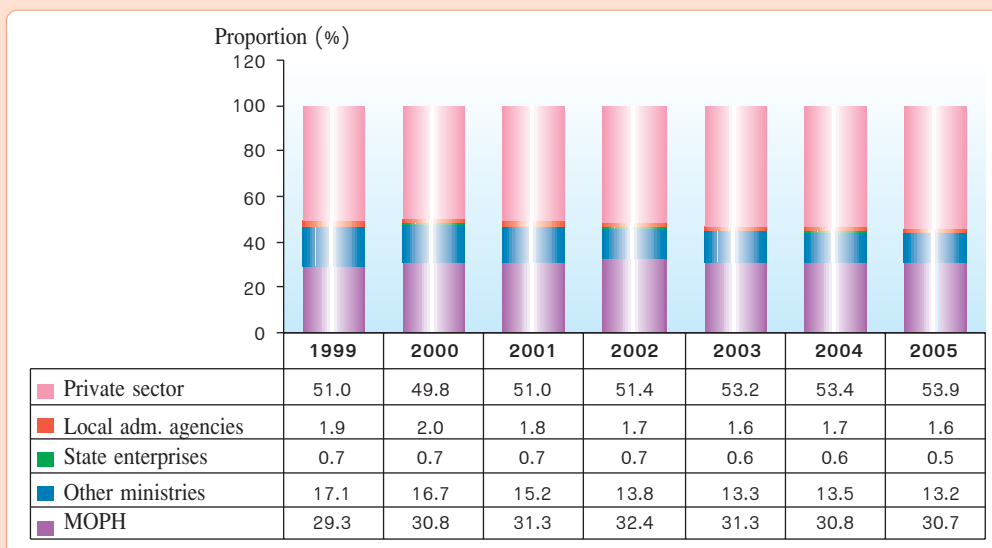


Source: Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.



However, according to other data sources, such as that for dental health personnel of the Department of Health, most of dentists are in the private sector, while only 30.7% are under the MoPH, in which the dentist proportion by agency does not change much (Figure 6.9).

**Figure 6.9** Proportions of dentists by agency, 1999-2005 (according to DoH database)

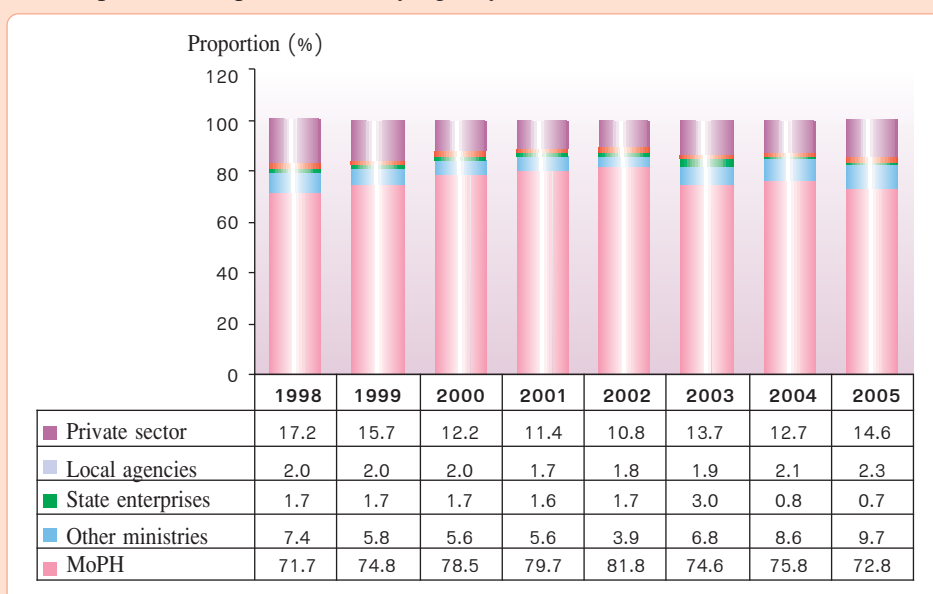


Source: Report on Dental Health Personnel, 1999-2005. Department of Health, MoPH.

### 3) Pharmacists

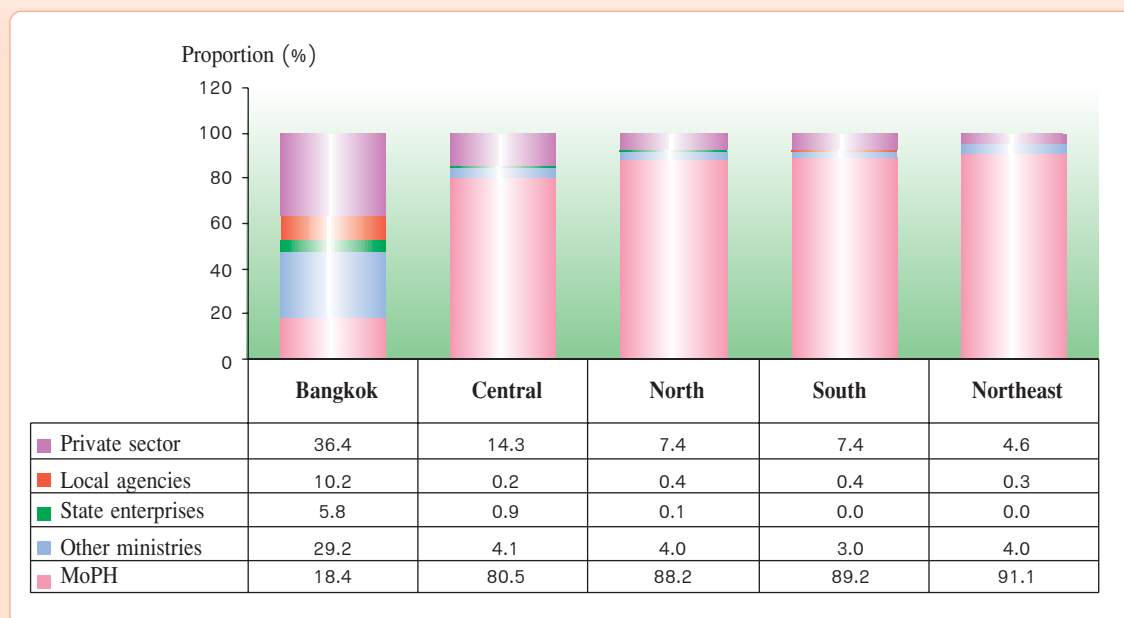
There is a small increase in the proportion of pharmacists in the MoPH, with a declining trend in the private sector. Since 2002, however, the pharmacist proportion in the private sector has been rising (Figure 6.10). In Bangkok, most pharmacists are in the private sector in the proportion close to that in other ministries; in other regions, they are mostly under the MoPH (Figure 6.11).

**Figure 6.10** Proportions of pharmacists by agency, 1998-2005



Source: Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

**Figure 6.11** Proportions of pharmacists by region, 2005

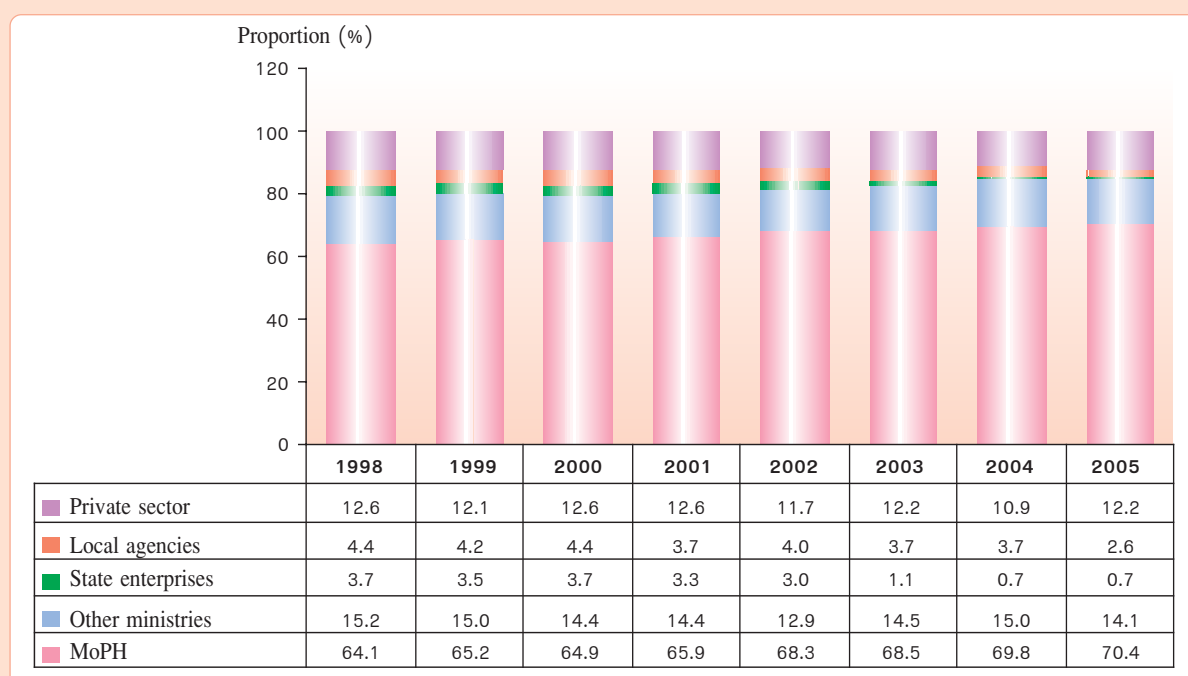


**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

#### 4) Professional Nurses

There has been a rising trend in the proportion of professional nurses in the MoPH, while that in other ministries declines slightly. Similarly, in the private sector, the changes have been in a narrow range (Figure 6.12). In Bangkok, most of the professional nurses are in other ministries, followed by in the private sector; while in other regions, most of them are under the MoPH (Figure 6.13).

**Figure 6.12** Proportions of professional nurses by agency, 1998-2005

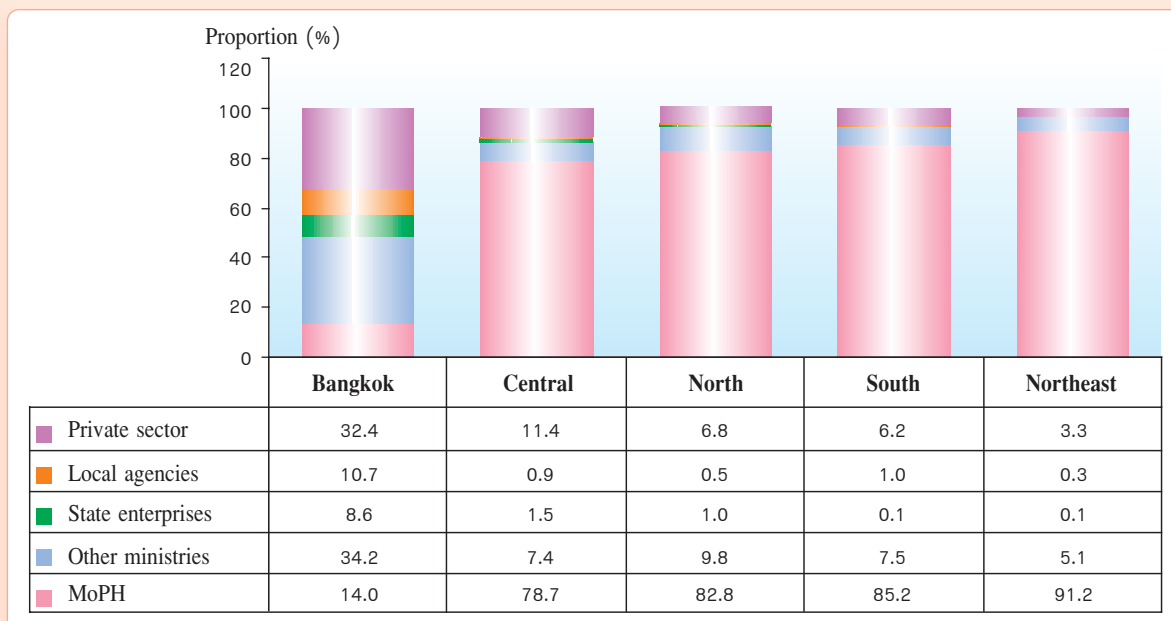


**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.





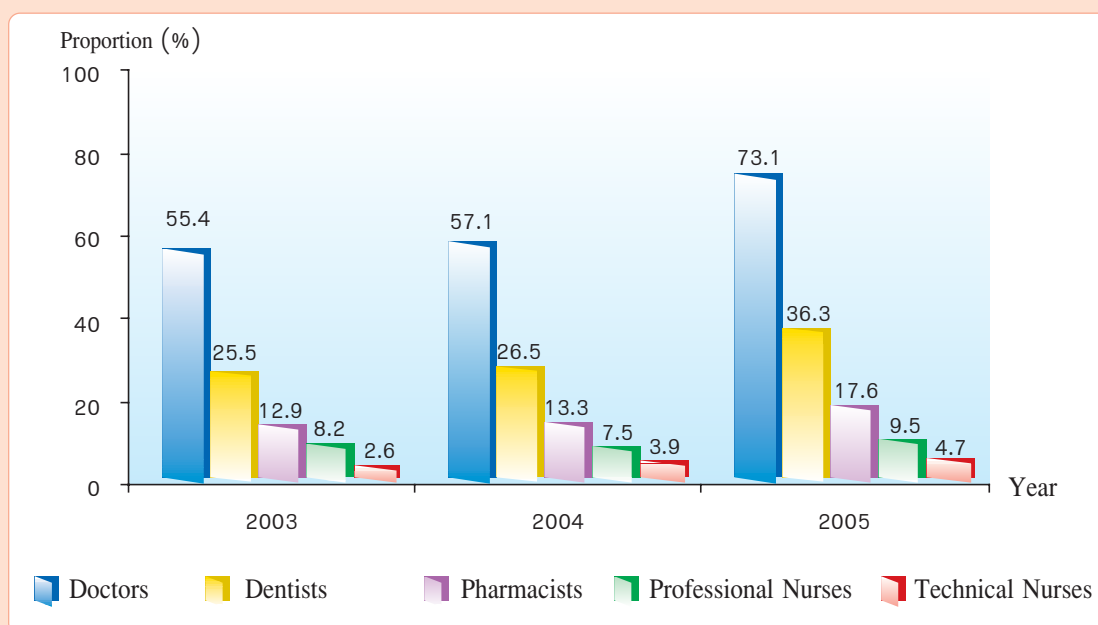
**Figure 6.13** Proportions of professional nurses by region, 2005



**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

Another important aspect in the management of health manpower is their part-time work in the private sector while working in the public sector. The proportion of part-time doctors mostly in the private sector was as high as 55.4% in 2003 and rose to 73.1% in 2005, while the proportions for part-time dentists, pharmacists, professional nurses and technical nurses were lower proportionately, but with a rising trend (Figure 6.14).

**Figure 6.14** Proportions of part-time healthcare providers in the private sector, 2003-2005

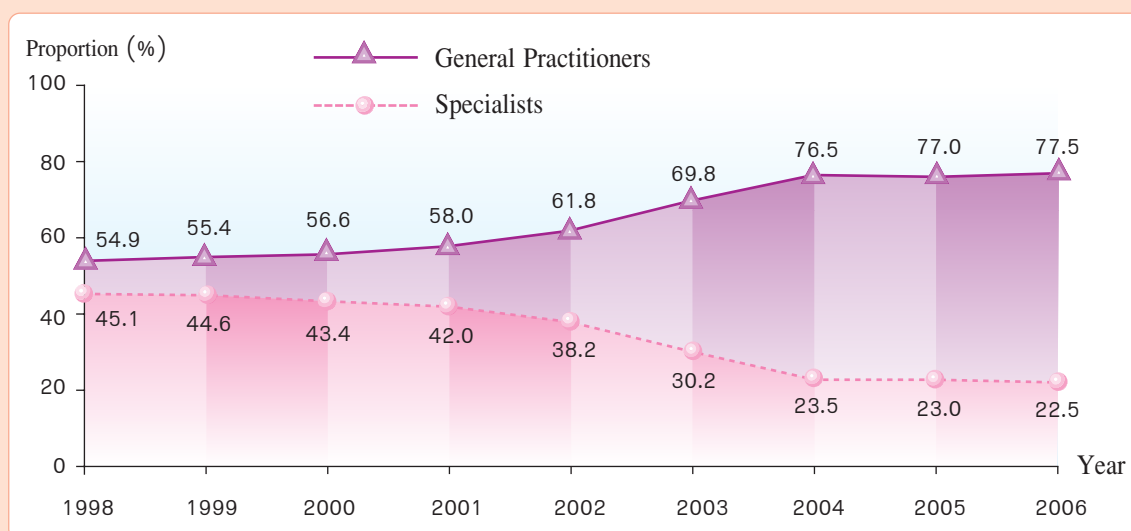


**Source:** Report on Health Resources Survey, Bureau of Policy and Strategy, MoPH.

### 1.1.3 Specialties of Health Manpower

Specialties of healthcare providers reflect the direction towards specialized care rather than integrated services. There has been a rising trend for doctors in Thailand to undertake specialty training. In 2006, the proportion of doctors with specialty certification was as high as 77.5% of all medical doctors (Figure 6.15).

**Figure 6.15** Proportions of medical general practitioners and specialists, 1998-2006



**Source:** Office of the Secretary-General, Medical Council of Thailand.

Similarly, for dentists in Thailand, there has been a rising trend for them to undertake specialty training. In 2005, the proportion of dentists with specialty certification was as high as 27.0% of all dentists (Figure 6.16).

**Figure 6.16** Proportions of general and specialized dentists, 1998-2005



**Source:** Dental Health Division, Department of Health, MoPH, September 2006.