Chapter 2
Literature Review

The literature review of the study was undertaken in the following topics: 1) Public-private mix in health care systems; 2) Private practice in public hospitals; 3) Factors determining hospital financing; and 4) Financial sustainability.

2.1 Public-Private Mix in Health Care Systems

A public-private mix in health care systems still needs to be developed so that the systems will be more effective. Private health care financing and provision plays an increasingly important role in health systems in low and middle income countries. Whilst it may be possible to draw private players into health care provision in the ways that enable the achievement of national health policy goals, there is also evidence that their uncontrolled expansion can have substantial negative consequences for the achievement of these goals.

Berman (1996) has defined the definition of "Public-Private Mix" as followed: Public generally refers to the direct actions of government at all levels; Private refers to actions not directly controlled by the government; and yet even this simple dichotomy is difficult to apply consistently.

2.1.1 Forms and Types of Public-Private Mix

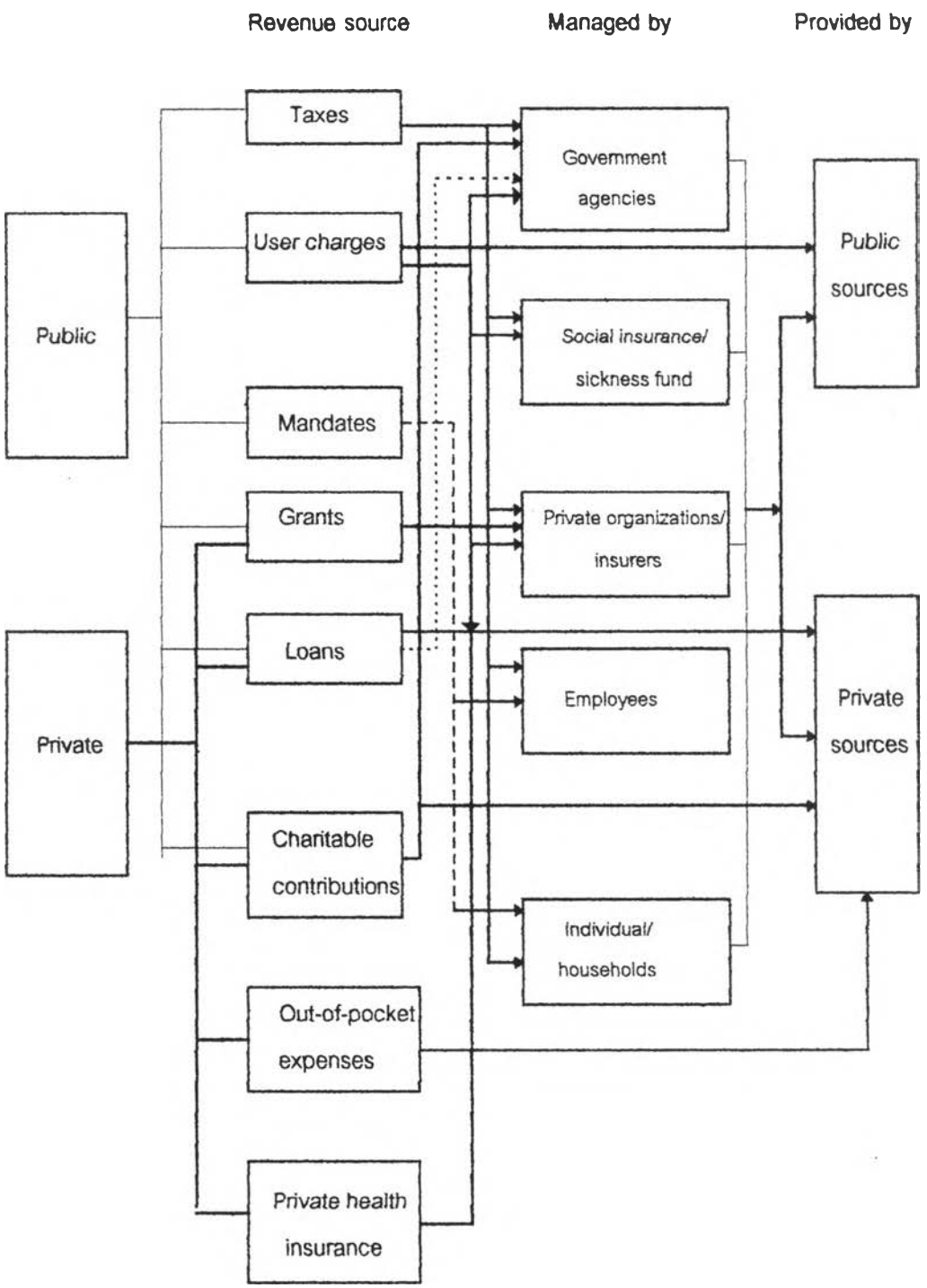
The characteristics of public-private mix are clearly divided into two components: roles and functions in terms of health financing and health care provision. Financing can be described by analyzing the composition of health expenditure according to the sources of funding, its flows through the health

care systems, and its ultimate uses. Provision refers to the numbers and different types of health care providers (e.g., hospitals, doctors, nurses, clinics, etc.).

These characteristics can be identified by ownership or control, and need to be more systemically characterized in terms of size, functions, and complexity.

Schieber (1997) who wrote the World Bank Discussion Paper No.365, had described the public-private financing mix, as shown in Figure 2.1, that health care systems are financed by many sources, public and private. These funds are managed by public and private entities and spent on both public and private provision. Funds can be raised or derived through taxes, mandates, private health insurance, direct private out-of-pocket payments (including user charges for publicly provided services), grants assistance, charitable contributions, and domestic or foreign borrowing (loans). The basic issues relating to the appropriateness of public or private sources of finance are predicated on governments' allocation, distribution, stabilization, the goals of economic development that policy-makers used to correct the problem of market failures and externalities in financing, consumption, and provision of health services. Other areas of market failure that have implications for public and private financing deal with information gaps and asymmetries, interdependence between supply and demand, and supply-side market failures.

Figure 2.1 Sources, management, and provision of health care financing of "Public-Private Mix"



Source: The World Bank Dicussion Paper No.365 (1997).

2.1.2 Experiences of Public-Private Mix in Health Care Systems

In the early nineties, there was a significant magnitude of private sector financing and provision of health care in low and middle-income countries. Private sources of finance are reported to comprise the largest share of national expenditures, and private provision accounts for most of ambulatory care. Since then the term of public-private mix has attracted the interest of policy-makers and planners in reviewing ways of harnessing the private sector to achieve national health goals, and to explore approaches to regulation that will reduce harmful effects of imperfectly free market in the health sector.

Akin et al. (1987) mentioned that there had been substantial criticism and questioning reports of the pro-private policy recommendation such as in the "Financing Health Services in Developing Countries: *An Agenda for Reform.*" This policy agenda advocated an increasing role of the private sector on the grounds that the private sector operated more efficiently than the public sector, and would generate more resources for health care, and provide services more responsive to consumer preferences than the public sector.

Mitchell et al. (1988) studied the technical efficiency in health institutions of both public and private facilities and suggested that it was difficult to explain which one had greater efficiency in terms of cost per unit of output due to differences in quality of care, case-mix or severity. Morever, Gilson (1992) had also studied and considered both efficiency and quality of care, and other control for case-mix, but he found that the results are also doubtful regarding the comparisons of efficiency of both sectors.

Uplekar (1989) reviewed drug prescriptions made by private practitioners for tuberculosis and leprosy in Bombay and found that the prescriptions made by them are generally more costly higher than those of

WHO recommended treatments, and private practitioners' knowledge was also commonly out of date too.

The World Bank (1993) has initiated to promote the private sector's expanding access to services through subsidizing private providers, and encouraging the more wealthy to use private providers. As well, bilateral donors, such as USAID, recommended a reduction in the level of government involvement in health care. This recommendation was based upon a relatively weak evidence base; very little was known about the activities of the private sector, particularly with regard to the quality and efficiency of services provided by private providers.

Hsiao (1993) has mentioned that Thailand has a three-tiered health care systems. In the bottom tier, the government provides free care in health centres and public hospitals to the poor. Services are rationed by limitation supply which results in long waiting lines and poor quality. Some low income persons can obtain services at public facilities on a reduced fee basis. In the middle tier for the middle income persons, the government has organized several financing schemes (i.e., health card, workmen's compensation, social security, and civil servant and state enterprise medical benefits). The insured can obtain services from public facilities and their funds pay the full cost and also can obtain services from private hospitals with certain limitation. On the top tier for upper income persons, patients pay directly and freely choose their services from both private and public facilities.

McPake (1997) has described the patterns of the public and private sectors in health services provision with regard to: 1) the existing roles of public and private sectors in the developing world; 2) the efficiency of public and private sectors with respect to demand; and 3) the ability of public and private sectors to contribute to more equitable population coverage. These

patterns of both two sectors need to be defined and directed by policy-makers and planners to achieve the health care systems goals.

2.2 Private Practices in Public Hospitals

Private practices in public hospitals are the new public management theories that encourage the adoption of management practice within the public sector the approaches formerly considered and characterized as those of the private sector organizations. These approaches include decentralization, hospital autonomy, internal markets, performance-related pay and contracting out.

2.2.1 Forms and Types of Private Practices in Public Hospitals

The World Health Organization (1996) has summarized the new public management approaches mentioned above in terms of three core components as follows:

1) The first core component is the separation of the policy and financing functions of government from the more operational functions, especially services delivery functions. These two sets of functions should be performed by different types of agencies. The central administrative agencies continue to perform the policy guidelines setting and financing functions. They devolve the implementation functions onto distinct operating agencies, in a relationship that is as far as possible contractual, where contracts are awarded competitively. The operating agencies may be public, private commercial or non government organization (NGO). Their managers should be free as well as possible from restriction about how they can fulfill their contracts, and able to operate in a free market for personnel and other inputs. This component intends to provide strong performance incentives at the level of the operational agencies.

2) The second core component comprises performance incentives for staff at the level of the individual or small group: employees will as far as possible be hired, fired, paid, and promoted according to work performance, as assessed regularly by their immediate managers. The new public management stands in opposition to: job security; promotion and remuneration according to experience, seniority, or length of services; reward and promotion according to assessment of job performance made over the long-term; and standard terms and conditions of services, especially those negotiated with and enforced by trade unions.

3) The third core component is the emphasis on measurement in determining the objectives of public policy, allocating resources, and assessing the performance of agencies and individuals.

The alternative ways of summarizing the essence of the new public management is thinking in terms of a longer list of key components: competitive; contracts; value of taxpayer' money; measurement of objectives and performance; remuneration according to results; institutional separation of service delivery functions from policy and strategic financial decisions; the "freedom" of managers to manage; and the use of private sector as a model and point of reference.

Tangcharoensathien (1994) has mentioned that the private practices in public hospitals are the implementation of private management in public organizations, and these interventions should be based on the roles and responsibilities of public organizations. In addition, these public organizations should be concerned about equity, efficiency, and quality of services for the people on a wider scale, especially for the poor and the vulnerable groups, and not for profit making.

There are five main objectives of private practices in public hospitals: 1) to increase health resources to be used in the public sector; 2) to increase competition in health service provision markets, between the public and private sectors; 3) to decrease public finance subsidies to public providers and using marketing mechanisms as well as pricing policy; 4) to decrease national health expenditure that is allocated through public providers; and 5) to improve quality of services that has to be responsive to the clients' expectation. He also summarized 10 types or forms of private practices in public hospitals as follows: contracting out; joint venture between public and private sectors; user charges for service; the clients oriented service provision; internal market; sales and leasing; public-private collaboration; subsidy; deregulation; and purchaser and provider split.

2.2.2 Some Experiences of Private Practices in Public Hospitals

Gilson et al. (1997) studied the government contract-out of clinical health services to church providers in South Africa and found that it was important to develop and extend contracting arrangements to non-governmental organizations (NGOs) cautiously. Building on the foundation of these case-studies, the effective policy development requires more information about: comparative church/government performance in service provision; the existing potential regulatory capacity of government; the diversity of church provider and other NGOs motivations; the impact on church/NGOs of contracting; and the administrative costs of the process. This study does not clearly suggest that churches are better providers than government or can become so through improved contracting procedures. Therefore, it remains to be explored whether the overall efficiency of health service provision can be

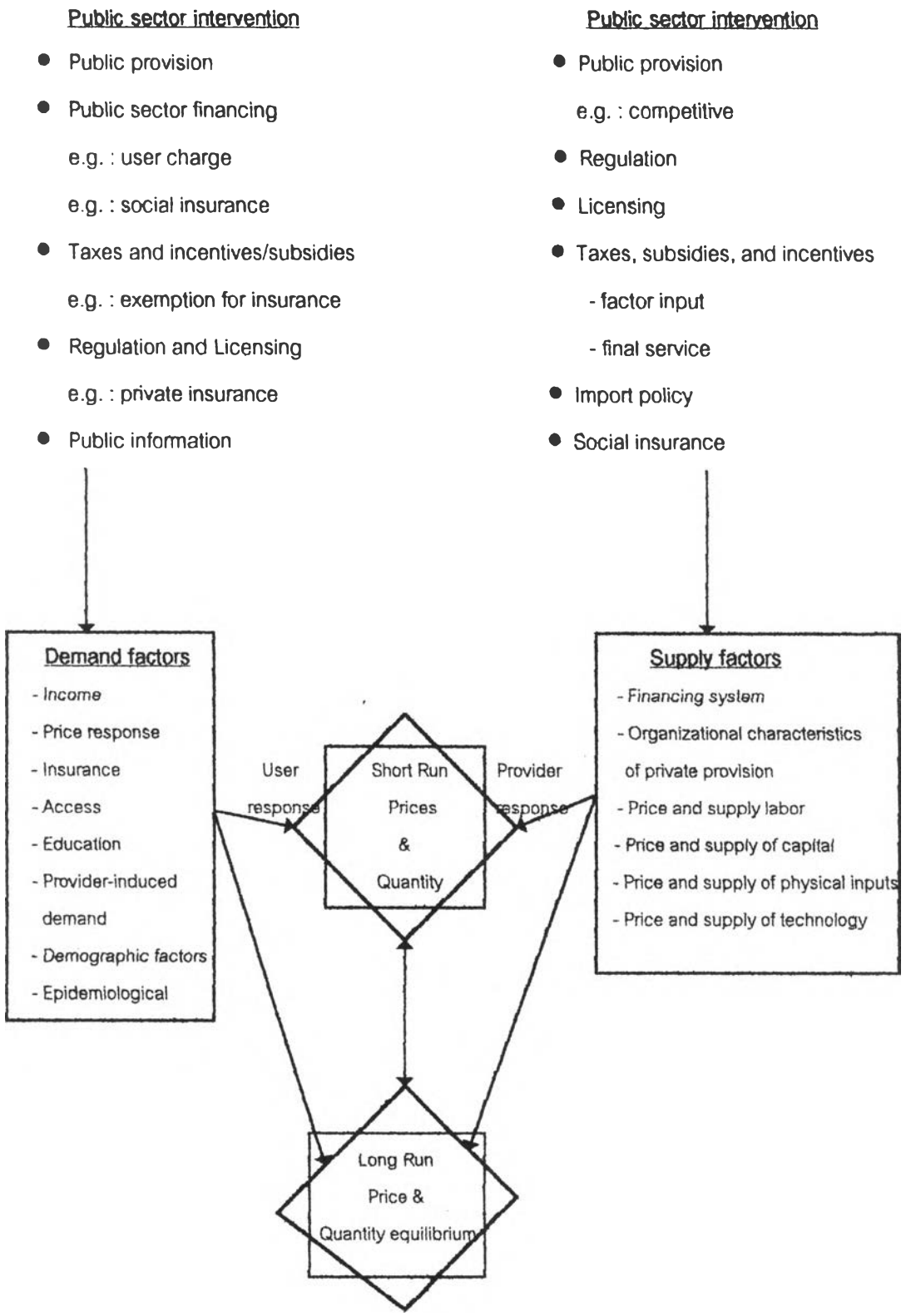
enhanced, at lowest cost, by improvements in the management processes and structures of the public sector.

Tangcharoensathien et al. (1997) studied a case of the private investment and the maintenance of medical technology in public hospitals, whose machines were operated and clinically used by hospital clinicians, and financed by those who used the service. In return, the contractor took the majority of the service use. The level of benefits to the contractor varied with the throughput apart from the one exceptional case of a fixed rent. At discretion of the hospitals, exemption for the poor was usually written in as part of the contract. The duration of the contract varied and contractors tended to be more pro-active in proposing terms and conditions than the clients. Clients usually paid more attention to the equipment specification than to financial arrangements. Some contracts were extraordinarily profitable to contractors, but others are very generous to the hospitals.

2.3 Factors Determining Hospital Utilization

Hospital utilization has been affected by both demand and supply factors, the determinants of the factors of supply and demand of public sector intervention in developing countries shown in Figure 2.2 (Berman and Rannan-Eliya, 1993). The study is aimed to examining both supply and demand sides; therefore, the scope of the factors determining both supply and demand sides have been reviewed.

Figure 2.2 Determinants of the supply and composition of public health care provision in developing countries



Source: Berman and Rannan-Eliya (1993).

2.3.1 Factors Determining the Supply

The scope of factors determining the supply in this study is the health care financing systems that are related to public hospitals as follows:

2.3.1.1 Sources of Hospital Financing, Payment Mechanisms and Trend

Financing of the health care systems is contributed from various sources, including to two main sources of finance: public and private. Public sources are derived from taxes and distributed through government agencies or public organizations. The most common of these sources of finance are the fiscal budgetary system and only a few that are subsidied through NGOs or private organizations according to their rules and regulations.

The World Bank (1995) reported that 75% of total health spending in India was from private out-of-pocket sources. An a analysis of that spending by users showed that 82% of primary health care spending was out-of-pocket, of which 92% of this spending is for primary curative spending. In other words, primary care spending is more private than overall spending, despite government's stated priority for such services. The study also showed that it was proportionally more private payment in rural areas and by lower income populations, implying a significance burden on the rural poor.

Bennett (1997) has mentioned that incentives and payment mechanisms that is the way in which payment mechanisms link components of the financing aspects of health care and its provision in health care market. Payment mechanisms shape financial incentives for providers. Table 2.1 illustrates some of the possible payment mechanisms and the purposes for which they might be used.

Table 2.1 Key Payment Mechanisms

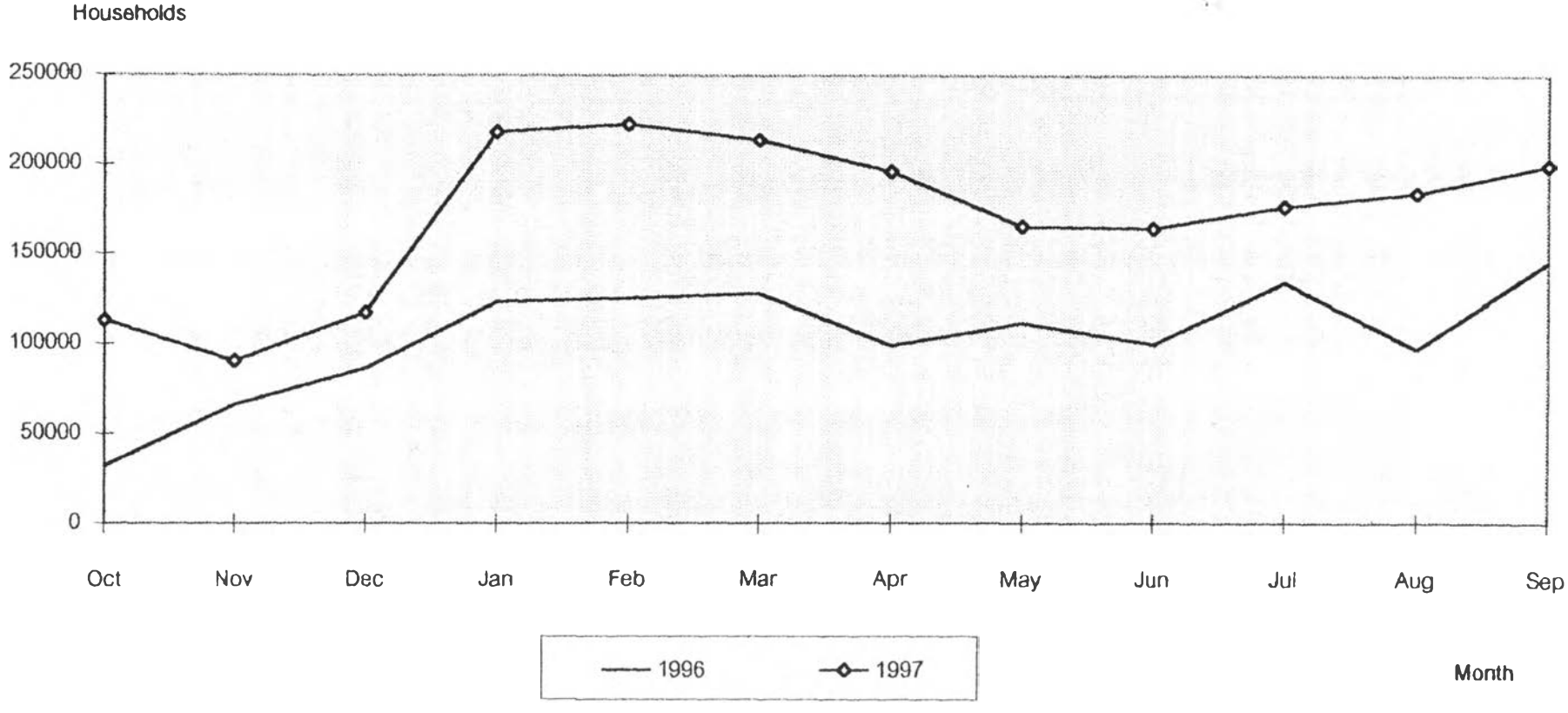
Payment mechanism	Unit of service paid for	Key incentives for providers
Fee-for-service	Single act or visit	Increase number of cases seen and service intensity. Provide more expensive services
Case payment (DRG) [1]	Differenct cases, according to fee schedule	Increase number of case seen Provide less expensive services
Daily charge	Patient-day	Increase number of bed-days (through longer stays or more cases
Flate rate (bonus payment)	Specific investment or specific services, e.g. preventive care	Provide specific bonus service (neglect other services)
Capitation	All service for one person in a given period	Attract more patients to register while minimizing the number of contracts with each service intensity
Salary	Usually one month's work	Reduce number of patients and number of services provided
Global budget	All services provided by an institution in a given period	Reduce number of patients and number of services provided

Note: [1] Diagnosis-related group

Source: Bennett (1997)

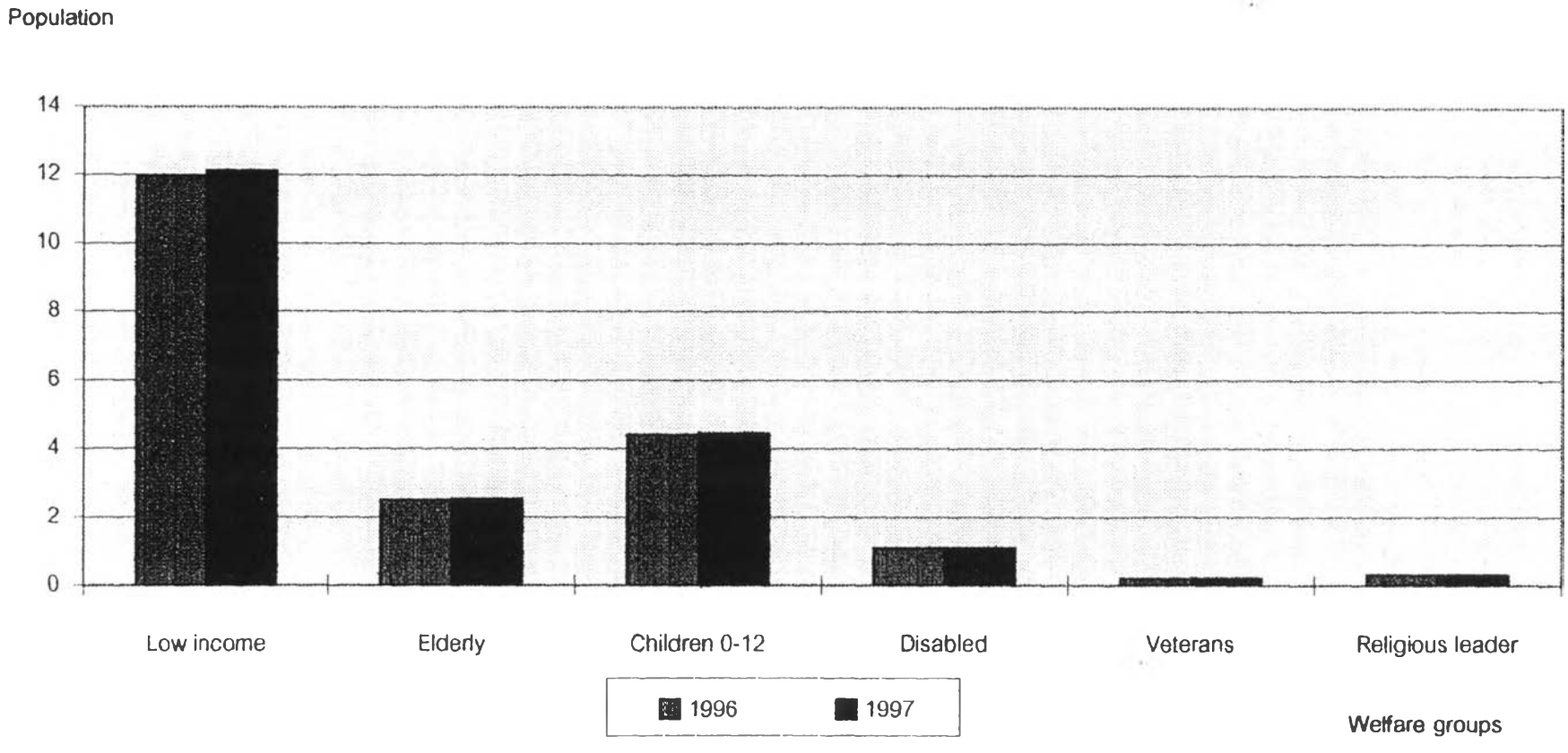
It has been recognized that the Health Card Scheme and Health Welfare Scheme of MOPH are the most important strategies in the Health Development Plans under the 8th National Economic and Social Development Plan (1997-2001), that are aimed at to achieving a universal health insurance coverage of the Thai people. The trends of the health insurance coverage in Thailand by the Health Card Scheme and Health Welfare Scheme of MOPH were rising during the period 1996-1997. As shown in Figure 2.3, the number of Thai family covered by the Health Card Scheme has been increasing over time, month by month. And in Figure 2.4, the number of Thai people covered by the Health Welfare Scheme is also increasing year by year. These figures correlate with the annual report of services utilization in Khon Kaen Hospital in 1996-1997, as shown in Figure 2.5.

Figure 2.3 Health insurance coverage by the Health Card Scheme in Thailand: 1996-1997



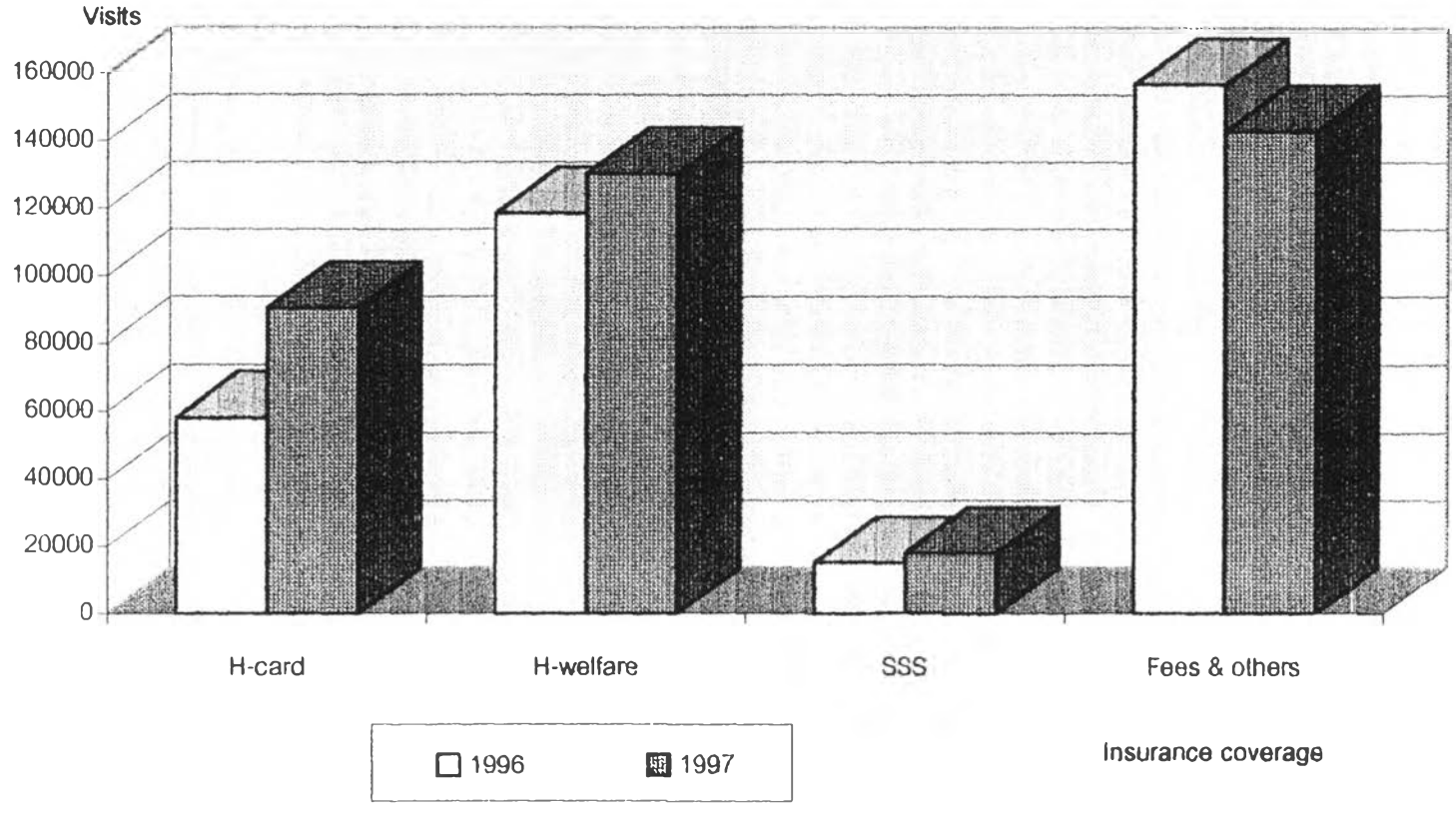
Source: Health Insurance Office, MOPH (1997).

Figure 2.4 Health insurance coverage by the Health Welfare Scheme in Thailand: 1996-1997



Source: Health Insurance Office, MOPH (1997).

Figure 2.5 Utilization of outpatient at Khon Kaen Hospital by type of health insurance coverage: 1996-1997



Source: Health Insurance Office of Khon Kaen Hospital (1998).

2.3.1.2 Hospital Costs and Efficiency

Hospital costs are affected by three major factors: 1) the price of the product or service; 2) the number or quantity of services; and 3) handling costs. The price of drugs is probably the responsibility of such individuals as purchasing agents, the therapeutics committee or the pharmacist. The quantity of drugs used (except for stocked medications) is basically determined by physicians. The handling and transportation of drugs to patients is the responsibilty of head nurse or her staff.

Barnum (1986) revealed the analysis of cost-effectiveness of tuberculosis treatment in Boswana and found that after improved compliance and a shift to ambulatory care were taken into account, the cost of the short-term treatment was less than one-third to one-half the cost of isoniazid-based regime per person. The program needed a mix of treatment strategies, depending on the accessibility of service, health care practices and customers which affected compliance and the prevalence of resistant strain. Data from Boswana in 1982 suggested that the adoption of the short-term amulatory treatment for 80% of patients would reduce the total health expenditure for tuberculosis by two-third, and the number of people that complied with the treatment and were cured, would be double.

Sewankambo (1989) advocated a strategy to deal with the HIV-induced diseases similar to those strategies for chronic diseases such as diabetes mellitus and hypertension, where the patients took an active role. First and foremost, home and community-based care can give patients cost-effectiveness treatment while enabling them to lead a normal life as usual. Most care should be provided by members of the family of the infected person, and family care givers must be educated about HIV transmission and prevention. Second, specialized HIV clinics should be established in areas in

which the infection rate justifies their existence. Finally, inpatient care should be a last resort and used only if outpatient services is not feasible and if the patient would benefit from hospitzaliation. Although Sewakambo had stressed the need to prevent nosocomial HIV transmission through infection control procedures, he rejected the idea of establishing separate AIDS wards because they would be likely to stigmatize patients and increase their sense of isolation.

2.3.2 Factors Determining the Demand

Berman and Rannan-Eliya (1993) have mentioned that the demand factors in Figure 2.2 above are associated with income, price response, insurance, access, education, provider-induced demand, demographic factors, and epidemiological conditions. Some parts of those factors will be reviewed as follows:

The Clients Characteristics

Pannarunothai (1993) has ducumented the utilization rate of population in urban areas, which is derived from a household survey in urban areas by age groups and insurance coverage, as summarized in Table 2.2.

The annual report of the Social Security Office, Ministry of Labor and Social welfare in 1996 shows that the demand and utilization of population covered by Social Security Scheme in Table 2.3 are significantly increasing over time and much higher than the uninsured of the same age group.

Table 2.2 Utilization rates of the insured and uninsured groups in urban areas by age group: 1993

Unit: visit/year

Age group	Civil servant group (%)		Health welfare group [1] (%)		Uncovered insurance (%)	
	Public hospital	Private clinic	Public hospital	Private clinic	Public hospital	Private clinic
0 - 4	1.29	5.16	4.33	6.50	1.56	3.81
5 - 14	1.20	2.14	0.00	0.00	0.24	1.28
15 - 44	0.37	1.10	0.38	0.38	0.44	0.81
45 - 59	0.58	1.34	0.00	3.08	0.36	0.91
60+	2.10	1.92	1.24	2.48	0.97	2.43

Note: [1] Health welfare groups include low income people, the elderly, children aged 0-12, the disabled, and veterans.

Source: Pannarunothai (1993).

Table 2.3 Utilization rates of the insured under the Social Security Scheme: 1992-1996

Unit: visit/year

Types	1992	1993	1994	1995	1996
Outpatient	**0.71**	**0.87**	**1.07**	**1.23**	**1.36**
Public	0.53	0.60	0.86	0.99	1.18
Private	1.01	1.13	1.25	1.41	1.48
Inpatient	**0.033**	**0.038**	**0.039**	**0.024**	**0.031**
Public	0.029	0.033	0.040	0.020	0.029
Private	0.040	0.040	0.034	0.026	0.032

Source: The Annual Report of Social Security Office (1996).

2.4 Financial Sustainability

The most important objective of the study is to ensure whether the implementation of the public sector intervention in public hospitals will be sustainable or not in the long run. The scope of review will cover only its definition and recommendations from various assessments of financial sustainability as follows:

2.4.1 Definition of Financial Sustainability

La Fond (1995) has defined sustainability "as the capacity of the health systems to function effectively overtime with minimum external input." Therefore, financial sustainability could be narrowly defined as the extent to which national resources or local health expenditures are funded from national resources, or, more flexibly, as the medium to long term stability of a mix of funding sources. An important feature of this definition is that it should be applied to the health system rather than individual facilities or programmes.

2.4.2 Assessment of Financial Sustainability

Brudon et al. (1994) have defined some measures of indicator [b] to assess trends in government expenditure on pharmaceuticals (WHO's manual on drug policy indicators), and suggested comparing annual government spending on drugs per capita to the inflation-adjusted average of the same measurement for the three previous years. To provide an assessment to governments which are dependent on international aid or the provision of pharmaceuticals products, this measurement should examine financial sustainability from the prospective of one key health system input. It is apparent that these calculations could be applied to the total government health spending and international health assistance, not only pharmaceuticals.

Carrin et al. (1995) have developed a tool as simulation model for assessing the feasibility and financial sustainability implications of alternatives to assist decision-makers to think through sophisticated issues of this indicator [a]. The process of data collection and data analysis of this indicator are widely assessed and complicated, as it have to be related with various sources of finance in both public and private sectors, regarding the diversity of service provision, and financing management organizations.

WHO (1997) has created and distributed recommendations for financial sustainability assessment, including three indicators as follows: [a] relative growth rates of health sector expenditure, health sector price index, GDP and specific incomes of main paying groups (government, insurance agencies, and direct payers or user fees); [b] trend in the percentage of funding coming from donors, government, individuals, and other sources; and [c] cost-recovery ratio. These also suggested that, if the information is available on sources and uses of funds in the health sector, the capacity of nationally based resources to maintain their role in financing the health sector in the long run has suggested by indicator [a] alongside more qualitative approaches.

In addition, if it is intended that particular facilities become self-financing or increase the extent to which they rely on self-generated revenues (e.g., from user fees and insurance reimbursement), cost-recovery ratios [c] are an adequate measure of success in achieving the objectives. In comparing recovery ratio, it is important to ensure comparable numerators and denominators, and in identifying self-financing as an objective of policy implementation, to identify the intended definition of "self-financing" whether, for example, it is intended that salary costs or capital depreciation should be included in the denominator.