

# Incoherent policies on universal coverage of health insurance and promotion of international trade in health services in Thailand

CHA-AIM PACHANEE AND SUWIT WIBULPOLPRASERT  
*Ministry of Public Health, Nonthaburi, Thailand*

The Thai government has implemented universal coverage of health insurance since October 2001. Universal access to antiretroviral (ARV) drugs has also been included since October 2003. These two policies have greatly increased the demand for health services and human resources for health, particularly among public health care providers.

After the 1997 economic crisis, private health care providers, with the support of the government, embarked on new marketing strategies targeted at attracting foreign patients. Consequently, increasing numbers of foreign patients are visiting Thailand to seek medical care. In addition, the economic recovery since 2001 has greatly increased the demand for private health services among the Thai population.

The increasing demand and much higher financial incentives from urban private providers have attracted health personnel, particularly medical doctors, from rural public health care facilities. Responding to this increasing demand and internal brain drain, in mid-2004 the Thai government approved the increased production of medical doctors by 10 678 in the following 15 years. Many additional financial incentives have also been applied. However, the immediate shortage of human resources needs to be addressed competently and urgently.

Equity in health care access under this situation of competing demands from dual track policies is a challenge to policy makers and analysts. This paper summarizes the situation and trends as well as the responses by the Thai government. Both supply and demand side responses are described, and some solutions to restore equity in health care access are proposed.

**Key words:** universal access, health insurance, private health providers, trade in health services, human resources for health, brain drain, health care equity

## Introduction

The Thai health care system is pluralistic and dominated by the public sector, particularly in rural areas where more than two-thirds of the population lives. In 2003, there were 9765 rural health centres covering all sub-districts; 725 community hospitals (10–120 beds) covering 91.2% of all districts; 74 general hospitals; 25 regional hospitals; 57 military hospitals; 60 specialized hospitals; and 10 medical school hospitals. In total, these public facilities provided 99 590 beds. In the private sector, there were 346 private hospitals providing 34 863 beds, which accounted for 25.9% of the total beds in the country. In addition, there are 14 935 private clinics, mainly in the cities (Wibulpolprasert 2002).

According to the 2000 census (Thamarangsi 2004), the country has 22 435 medical doctors, 119 651 nurses, 6966 dentists, 10 354 pharmacists and 31 931 rural health workers. The proportion of doctors, nurses, dentists and pharmacists in the public sector is 71, 87, 59 and 56%,

respectively. Public institutes produce more than 95% of human resources, under a heavily publicly subsidized system.

One of the main problems of human resources for health in Thailand is the imbalanced distribution in terms of both geographical areas and specialization. In 2001, the doctor density in the capital, Bangkok, was 10 times the density of the poorest Northeastern region. In terms of specialty, more than 72.5% of medical doctors were classified within one of the 45 medical specialties (Wibulpolprasert 2002). Several strategies, on both the supply and the demand sides, have been used to improve the distribution of human resources for health, with some degree of success.

Health equity has long been a global and national health target since the era of Health for All and primary health care in the late 1970s. In 2001, the new government embarked on a new policy of universal coverage of health insurance. Through this, 30% of the population

(an additional 18 million people) now have access to essential care without financial barriers. This policy has greatly increased the demand for health care.

The recent economic recovery after the 1997 economic crisis has also stimulated demand for health care. And, at more or less the same time, the private health sector, supported by the government, started intensive marketing to attract more foreign patients—in order to promote the international trade in health services as a means of stimulating economic growth. The initial success of this policy increased the demand for health care by foreign patients.

In the year 2000, the size of the global health services sector was estimated to be US\$300 billion. The estimated figure for 2005 is US\$400 billion (Chanda 2001). Most of this is for domestic markets. The value of global health services exports in 2000 was estimated at US\$14 billion, less than 5% of the global market. However, this may grow rapidly as information and communication technology make it easier—for example, through e-health—and as health systems are liberalized and entry barriers are lowered (Woodward et al. 2002). In Thailand, more than 60% of the Thai GDP in 2003 came from exports (Wibulpolprasert et al. 2004). Thus, every government supports the export of goods and services to stimulate economic growth. The health sector has been targeted recently as one of the potential export services. The Thai government is therefore aggressively supporting more international trade in health services through improving quality standards, road shows, investment incentives and negotiation with trade partners.

However, there may be several possible implications of the international trade in health services, particularly related to social equity (Chanda 2001). First, consumption of health services by foreigners can result in a dual market structure, which can divert scarce health resources from the poor. Secondly, although foreign commercial presence can reduce pressure on public resources, it can also lead to a tiered health care system, with a flow of providers from the rural public to the urban private health sector. Finally, although movement of health personnel from developing to developed countries may create opportunities for remittances to developing countries, the resultant brain

drain is a serious constraint for national health system development (Whelan et al. 2004).

This paper attempts to review the situation and project the trend of possible implications of the dual track policies on health services. It also proposes possible additional actions to protect health equity. It was prepared through review of relevant documents on health services utilization behaviours from the National Health and Welfare Surveys, surveys of foreign patients from the Ministry of Commerce and other relevant local and international documents. Through the existing information, relevant assumptions are employed to project future trends and implications.

### The policy of universal coverage of health insurance

Since 1965, the Thai government has tried to gradually increase the coverage of health insurance, aiming at more health care equity and the reduction of catastrophic illnesses. Health insurance coverage gradually increased from 33.4% in early 1991 to 71.0% in 2001 (Table 1). Yet there were still around 20 million people without any kind of health insurance. The Thai Rak Thai party proposed, in its political campaign in late 2000, to embark on the universal coverage of health insurance if it was elected to government. This campaign played an important role in its success in the 2001 election. In April 2001 the policy was initiated in six provinces, then expanded to 21 provinces in July 2001, and has covered every province since October 2001.

Three main health insurance schemes now cover the entire population (Table 1): the Civil Servant Medical Benefit Scheme (CSMBS); the Social Security Scheme (SSS); and the universal coverage scheme (30 Baht scheme).

### The Civil Servant Medical Benefit Scheme (CSMBS)

The CSMBS covers civil servants, public employees and their dependants. The scheme is paid totally from the general tax revenue based on a fee-for-services retrospective reimbursement system. Public facilities are the main providers under this scheme.

**Table 1.** Coverage of health insurance (%), 1991–2003

Health insurance scheme	1991	1996	2001	2003
Universal coverage	–	–	–	74.7
Social welfare	12.7	12.6	32.4	–
Civil servants (CSMBS)	15.3	10.2	8.5	8.9
Social security	–	5.6	7.2	9.6
Voluntary health card	1.4	15.3	20.8	–
Private health insurance	4.0	1.8	2.1	1.7
Total insured	33.4	45.5	71.0	94.9
Uninsured	66.6	54.5	29.0	5.1

Source: Reports of Health and Welfare Surveys 1991, 1996, 2001 and 2003 (National Statistical Office 1991, 1996, 2001, 2003).

### The Social Security Scheme (SSS)

The SSS is a tripartite system contributed to by employers, employees and the government on an equal share basis. It covers private employees and temporary public employees. Public and private facilities have approximately equal share of the insurees. This scheme pays the providers by the contract capitation system.

### Universal coverage scheme (30 Baht scheme)

The scheme of universal coverage of health insurance was implemented fully in October 2001, by combining the previous social welfare health services and the voluntary health card scheme, and further expands the coverage to 18 million more people. This scheme covers 74.7% of the population. It is financed solely from the general tax revenue. Public hospitals are the main providers; they cover more than 95% of the insurees. About 80 private hospitals also joined the system and register around 4% of the beneficiaries.

Since October 2003, the government has embarked on universal access to antiretroviral drugs (ARVs). Up until May 2005, more than 50 000 patients have been registered into the system.

These two policies have rapidly increased the demand for health services in the public sector. The overall number of outpatients in public hospitals in 2003 increased by 40–50%.

### Policy on promotion of trade in health services

Since the late 1980s, the government has promoted trade in health services through tax incentives for investment in private hospitals. This policy, coupled with the economic boom during 1989–96, has resulted in the mushrooming of urban private hospitals. Between 1987 and 1997, 190 hospitals were established using this tax incentive (Board of Investment of Thailand 2004). Twelve private hospitals are now listed in the Stock Exchange of Thailand (2004). After the 1997 economic crisis, investment in private hospitals reduced dramatically (Buddhasri et al. 2003). Some private hospitals started new marketing strategies based on packaged services and targeted more towards foreign patients. The relatively competitive price, high quality services and excellent

hospitality have contributed to a rapid influx of foreign patients.

Realizing the potential, in early 2003 the government approved the policy titled ‘Thailand: Centre of Excellent Health Care of Asia’, targeted to achieve 850 000 foreign patients in 2004. An income of US\$500 million was expected for 2004, rising to US\$1 billion in 2008 (Bureau of Policy and Strategy, Ministry of Public Health 2004). The Ministry of Public Health together with the Ministry of Commerce, in collaboration with the Private Hospitals Association, are the main implementers of this policy. Many road shows have been carried out in targeted countries to publicise it. The Board of Investment (BOI) provides tax incentives to local and foreign investors for investment in new health facilities aimed at servicing foreign patients. The Ministry of Public Health has published and disseminated a list of private hospitals that have the capacity to cater for foreign patients. Regional trade agreements, for example, the ASEAN Framework Agreement on Services (AFAS), also agree on the facilitation of movement of patients and providers (Chalamwong and Tansaewee 2005).

Further, the economic recovery since 2001 has resulted in increasing domestic demand within the private sector, and resulted in the rapid revitalization of private health facilities.

### Increasing demands and competition for limited human resources

#### Demand from the Thai population

During the period of economic crisis between 1996 and 2001, outpatient visits to health care facilities decreased from 2.87 to 2.84 visits/capita/year (Vasavid et al. 2004). There was also a shift from using private facilities to public facilities. The proportion of people using public facilities increased from 25.4% to 48.45%. The proportion using private hospitals and clinics decreased from 26.9% to 17.7% (National Statistical Office 1996, 2001) (Table 2).

The Health and Welfare Survey of 2003, 2 years after implementing the universal coverage policy and a time of rapid economic recovery, found outpatient visits had increased to 3.62 visits/capita/year (National Statistical

**Table 2.** Health-care-seeking behaviours (%), 1991–2003

Health-care-seeking behaviour	1991	1996	2001	2003
Not seeking health care	16.75	7.10	5.10	5.70
Traditional healing	5.25	3.40	2.35	2.75
Self-medication	37.75	37.20	25.75	22.50
Health centre (public)	9.85	14.05	13.90	17.70
Public hospital	12.95	11.35	34.55	32.30
Private clinic/hospital	17.45	26.90	17.70	22.45

Sources: Reports of Health and Welfare Surveys 1991, 1996, 2001 and 2003 (National Statistical Office 1991, 1996, 2001, 2003).

**Table 3.** Projected demand for medical doctors by Thai patients, by moving average method

Year	Visits/capita/year		Population (million)	Total visits (OP equiv.) requiring a doctor (million)	No. of additional doctors required	
	OP	IP			Total	In private sector
1996	2.87 <sup>a</sup>	0.066 <sup>a</sup>	–	–	–	–
2001	2.84 <sup>a</sup>	0.076 <sup>a</sup>	62.0	198.65–208.07	–	–
2003	3.62 <sup>a</sup>	0.086 <sup>a</sup>	63.3	247.50–258.39	2443–2795	1002–1146
2005	3.87 <sup>b</sup>	0.092 <sup>b</sup>	64.5	270.18–282.07	1134–1315	465–539
2007	4.29 <sup>b</sup>	0.099 <sup>b</sup>	65.7	302.10–315.15	1596–1838	654–753
2009	4.77 <sup>b</sup>	0.106 <sup>b</sup>	67.0	338.40–352.65	1815–2083	744–854
2011	5.16 <sup>b</sup>	0.113 <sup>b</sup>	68.2	371.17–386.66	1639–1889	672–775
2013	5.59 <sup>b</sup>	0.120 <sup>b</sup>	69.4	407.78–424.55	1830–2105	750–863
2015	6.03 <sup>b</sup>	0.127 <sup>b</sup>	70.7	445.59–463.70	1891–2175	775–892

<sup>a</sup>Data from Health and Welfare Survey by the National Statistical Office.

<sup>b</sup>Projecting rate of future increase in outpatient (OP) and inpatient (IP) visits by using average rate in the previous three biennial periods, giving equal weight to each period

Conditions for projection:

- (1) Population growth rate = 1%/year (National Statistical Office 2004);
- (2) 70% of OP and 100% IP require medical doctor services (Wibulpolprasert 2002);
- (3) One IP visit is equivalent to the workload of 16–18 OP visits (Wibulpolprasert 2002);
- (4) One medical doctor services 18 000–20 000 OP equivalent visits/year (Wibulpolprasert 2002);
- (5) 41% of patients visit private hospitals/clinics (Table 2).

Office 2003). The use of public facilities had increased to 50.0%. One factor contributing to this increase is the universal coverage of health insurance, where most people are registered with the public facilities. Vasavid et al. (2004) point out that one objective of the universal coverage scheme is utilizing health services at the primary level at public facilities close to home. This objective is thus accomplished due to the increase in visits to public health care facilities. However, this increased demand for health services resulted in greater requirements for human resources for health. Table 3 shows the increase in total demand for doctors projected by the moving average method. Another scenario applying average growth between 1996 and 2001, of 0.11 visit/capita/year, results in a less marked increase in demand. For example, using the former method, the additional demand for doctors between 2013–15 is 1891–2175 (Table 3) compared with 1252–1457 using the latter methodology. About 60% of this demand is in the public sector.

### Demand for private providers from trade in health services

#### (1) Demand from Thai patients

The economic recovery since 2001 and further rapid growth have resulted in increasing demand on private providers among the Thai people. Table 2 shows that the proportion of visits to private providers increased from 17.7% in 2001 to 22.4% in 2003. The demand for doctors in the private sector to provide health services to Thai patients is shown in Table 3, and accounts for about 41% of the total demand.

#### (2) Demand from foreign patients

In 2001, the Department of Export Promotion in the Ministry of Commerce carried out a survey of 20 private

hospitals which were known to cater to foreign patients. Only seven hospitals responded, but it was deduced from these that there were 470 000 foreign patients in 2001, a 38% increase from 2000 (Department of Export Promotion, Ministry of Commerce 2002). The figure increased to 630 000 in 2002, a 34% expansion from 2001 (Division of Service Business 2003). In 2003, there were 973 532 foreign patients utilizing health care services in Thailand, a 54.5% increase from the previous year. These patients brought in revenue of US\$660 million. Thailand has replaced Singapore as the Asian country with the highest number of foreign patients (Department of Trade Negotiation, Ministry of Commerce 2004). Patients come mainly from Japan, USA, Taiwan, UK and Australia, respectively. There is also a rapidly increasing trend of patients coming from the Middle East and other Asian countries. Empirical evidence from the Department of Export Promotion found that 60% of these patients are expatriates in Thailand or neighbouring countries, 10% are tourists who happened to be ill, and the remaining 30% came specifically for the health care services.

The increasing demand for health care services and the demand for doctors by foreign patients can be projected, as shown in Table 4. It is calculated using the regressive increasing rates of foreign patients. With these increasing rates, the number of additional medical doctors needed for foreign patients in 2015 will be around 176–303, accounting for 9–12% of additional medical doctors required within the health system and 23–34% of those required by the private health sector to service the increasing demand from Thais.

Another three scenarios with different constant growth rates, of 10–12%, 14–16% and 18–20%, were also projected (figures not shown here). Using these rates,

**Table 4.** Demand for medical doctors by foreign patients

Year	Foreign patient visits (million)		Total visits (OP equiv.) requiring a doctor (million)	Additional doctors required by foreign patients		
	OP	IP		Total	% of those required in private sector	% of those required by whole system
2001	0.61 <sup>a</sup>	0.030	1.22	–	–	–
2002	0.82 <sup>a</sup>	0.041	1.64	–	–	–
2003	1.26 <sup>a</sup>	0.063	2.53	109–131	11	4
2005	1.76–1.82 <sup>b</sup>	0.088–0.091	3.52–3.64	83–111	18–21	7
2007	2.45–2.62 <sup>b</sup>	0.122–0.131	4.90–5.25	115–160	18–21	7–8
2009	3.18–3.53 <sup>c</sup>	0.159–0.176	6.37–7.06	123–181	17–21	6–8
2011	4.14–4.75 <sup>c</sup>	0.207–0.237	8.89–9.50	159–244	24–31	9–11
2013	5.01–5.96 <sup>d</sup>	0.250–0.298	10.03–11.92	145–242	19–28	7–10
2015	6.06–7.48 <sup>d</sup>	0.303–0.373	12.13–14.95	176–303	23–34	9–12

OP = outpatient; IP = inpatient.

<sup>a</sup>Figure from survey by the Ministry of Commerce plus 30% of the under-surveyed.

<sup>b</sup>Estimation with the assumption of increase at the rate of 18–20% per year.

<sup>c</sup>Estimation with the assumption of increase at the rate of 14–16% per year.

<sup>d</sup>Estimation with the assumption of increase at the rate of 10–12% per year

Conditions for projection:

- (1) An IP visit is equal to 5% of an OP visit and 20 times the OP workload;
- (2) Every patient requires a medical doctor;
- (3) One medical doctor provides services to 10 000–12 000 OP visits/year (Wibulpolprasert 2002).

the additional demand for doctors for foreign patients during 2013–2015 may vary from 15–77% of the additional demand in the private sector arising from the increasing demand of Thais. This variation depends on how successful the trade in services will be.

### Internal brain drain as a result of the competing demands

Both increasing demand and more financial incentives in the private sector have resulted in the outflow of human resources, particularly physicians, from rural public facilities under the Ministry of Public Health to urban private hospitals. According to Pannarunothai et al. (1998), the income gap between private and public health personnel is highest among doctors (a difference of up to 6–11-fold in 1997), hence the highest outflow. The flow fluctuates with the economic situation. It improved during the period of economic recession (1980–88) but worsened during the economic boom (1988–97) due to rapid expansion of large urban private hospitals. After the economic crisis in 1997 the situation improved again. Since 2001, because of the improving economy and the influx of foreign patients, the human resources distribution has worsened (Wibulpolprasert and Pengpaiboon 2003). The fluctuation in the flow of doctors is illustrated by the figures for doctors employed by the Ministry of Public Health, as shown in Figure 1 (Ministry of Public Health 2004).

However, the calculated additional demand for physicians by foreign patients in 2003 (as shown in Table 4) is only around 11% of the additional demand (domestic and foreign) in the private sector, and 4% of the additional

total demand. The figures for 2015 increase to 23–34% and 9–12%, respectively. With a constant high growth rate, the figures for 2015 may be 56–77% of the additional demand in the private sector and 19–24% of the additional total demand of the country, respectively. Therefore, international trade in health services is not the major contributing factor to the current internal brain drain. The increased demand from Thai patients in the private sector is more influential. Nevertheless, the number of foreign patients is predicted to increase at a faster rate than the number of Thai patients. Thus, foreign patients will form an increasing proportion of the additional demand for doctors in the future.

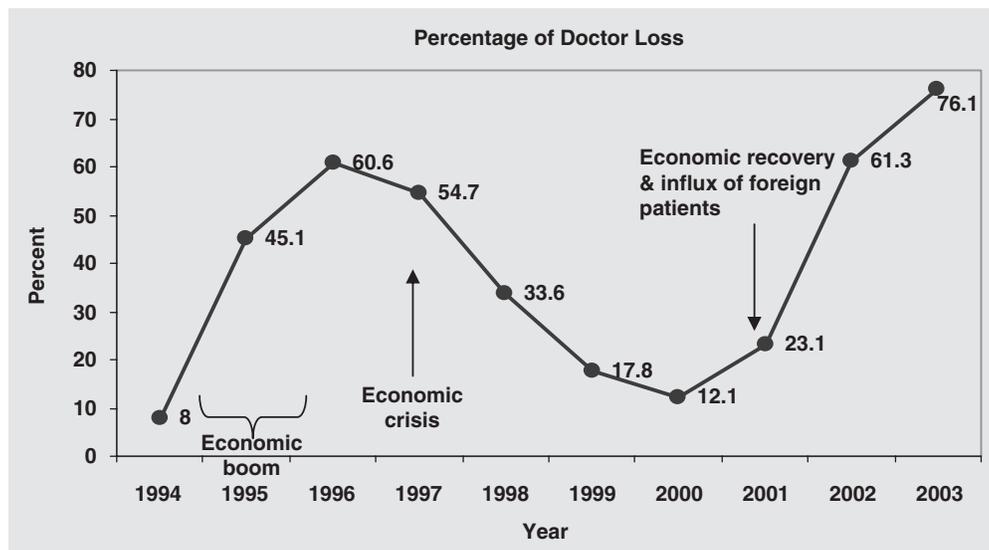
### Responses from the Thai Government

In the past, the Thai government has implemented several measures, on both the supply and the demand sides, to solve the problems of internal brain drain and inequitable distribution of human resources. Additional responses have been implemented in the past few years.

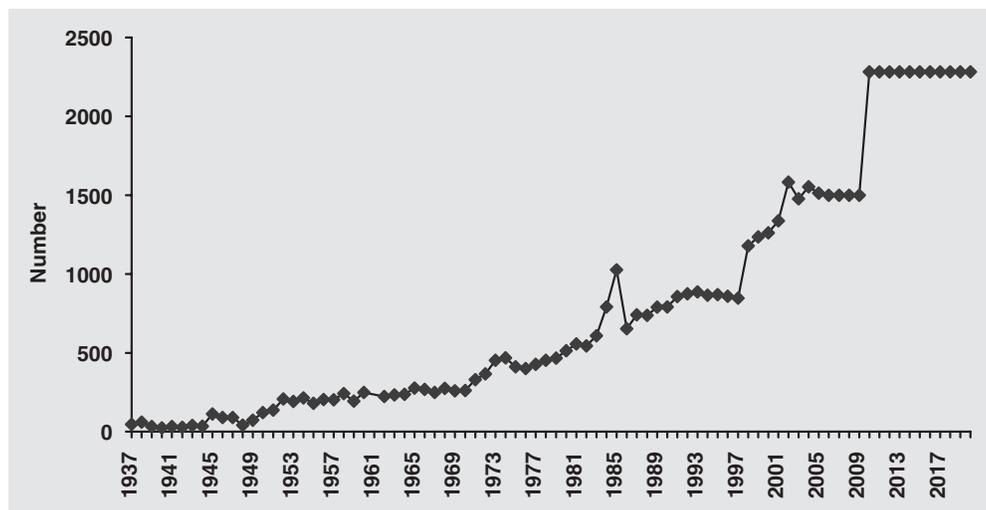
#### Supply-side interventions

*Increase supply through increasing production, hiring of retired doctors and import of foreign doctors*

In response to rapidly increasing demand in the mid-1990s, the production of physicians was increased by 600 per year during 1993–95. Furthermore, the recent increasing demand prompted the government, in mid-2004, to approve a project to accept an additional 10 678 medical students during 2005–14 (The Secretariat of the Cabinet 2004). Figure 2 shows the increasing and



**Figure 1.** Percentage net loss of medical doctors employed by the Ministry of Public Health compared with new recruits, 1994–2003  
*Source:* Bureau of Central Administration, Ministry of Public Health (2004).



**Figure 2.** Output of medical doctors in Thailand  
*Sources:* Thai Medical Council; Collaborative Project to Increase Production of Rural Doctors; Bureau of Tertiary Education Policy and Planning, Office of Tertiary Education Commission.

projected output of medical graduates. However, the first batch of these new medical students will graduate in 2011, which will not be in time to solve the immediate demand. In the longer term, the output of new medical graduates seems to be sufficient to respond to the projected requirements. In order to ensure equity of education, longer rural retention and local acquaintance, the additional new medical students will be recruited from the rural provinces/districts and trained in provincial hospitals. For example, in mid-2004 the cabinet approved the ‘One District, One Doctor Project’. Medical students will be recruited from high-school graduates in rural districts,

educated in a local university and local hospitals, and retained to work in their districts.

Due to the lag time in the production of new medical graduates, a measure used by some hospitals, particularly urban public hospitals, to help to address the immediate shortage of medical doctors is to hire retired physicians to work part-time.

In response to the increasing demand in the private sector, there was a proposal from the Private Hospitals Association to import foreign doctors to serve foreign

patients, a proposal not well received by the medical community. However, since 1986, the Thai medical licensing examination has been carried out in the Thai language instead of English. According to the Medical Council of Thailand (cited in Wibulpolprasert et al. 2004), since then less than 10 additional foreign medical graduates have been licensed to practice in Thailand.

#### *Compulsory public service and provision of financial incentives*

In 1967, the government decided to enforce a 3-year compulsory public service for new medical graduates, in response to the rapid external brain drain. More than two-thirds of the new doctors were placed to work in rural areas (Wibulpolprasert and Pengpaiboon 2003).

Since 1975, the government has started many financial incentives for rural doctors, including hardship allowances, no-private-practice allowances, overtime payments and non-official-hours special service allowances. These financial incentives have been allowed to increase by up to 20% after the implementation of the universal coverage scheme. In response to the severe internal brain drain, the government approved additional financial incentives in 2004 and 2005. A new medical graduate working in the most remote rural district can now earn up to US\$1500 per month, approximately equal to the salary of a senior doctor in a central department who has 25 years of working experience.

#### *Non-financial incentives*

Some non-financial incentives have also been implemented. For example, the physicians in a rural district hospital may have career status equivalent to the Deputy Director-General of a Central Department, i.e. PC (position classification) level 9.<sup>1</sup> More opportunities for continuing education for rural health personnel are also provided. Social recognition such as an annual award for the outstanding rural health personnel is another important strategy implemented.

#### **Demand-side interventions**

##### *Health promotion campaigns*

Intensive health promotion campaigns and strategies have been promoted together with the implementation of universal coverage. The main targets include increased physical activity, tobacco control, control of alcoholic beverages, diet, and rest and relaxation. A national 'Healthy Thailand' project was approved in 2004, aiming at a healthier population with subsequently less use of medical care services.

##### *Promotion of primary care*

One of the main targets of universal coverage is to strengthen near-home primary care services. Primary care units (mainly non-physician manned health centres) have been upgraded and manned with more nursing

staff. This effort has been so successful that the proportion of patients visiting health centres increased from 13.9% in 2001 to 17.7% in 2003 (Table 2).

#### **Discussion and conclusion**

Two-thirds of Thailand's gross domestic product (GDP) comes from the export of goods and services. Tourism, including health tourism, accounted for almost 8% of GDP in 2000 (Wibulpolprasert 2002). With the high potential and competitive advantages of the Thai health care system, the export of health services is being strongly promoted to gain more foreign currency and boost economic growth. Accordingly, the trend of rising demand for the health care services and human resources in the private sector arising from this policy will play an increasing role in the near future. Increasing international trade in health services, particularly the movement of patients or Mode 2 service trade, occurs beyond the existing multilateral and bilateral trade agreements (Wibulpolprasert et al. 2004). Nevertheless, the internal economic recovery and trend of further economic growth have major roles in the current increasing demand on the private health sector. Although demand from foreign patients to the private health sector is increasing at a rate higher than that from the domestic population, the latter still have the greater share.

The universal coverage policy is one of the most popular policies of the government. Every public poll between 2002–04 conducted by National Health Security Office and ABAC-KSC Internet Poll Research Bureau (2004) shows more than 70% public satisfaction. Thus, the policy will continue with more and more benefits added. This will definitely increase the demand for health care, in addition to the aging population, the improving economy, more urbanization and better education. Consequently, the demand for health care and associated human resources by the Thai people will continue to increase, although at a lower rate than that by foreign patients.

Thus, the competition for limited human resources for health between the trade in health services and the universal coverage policy will continue in the future, as will the trend of internal brain drain.

It is evident that since the Thai government started promoting the private health sector in the 1980s, there have been relatively inadequate regulations and strategies to reduce any harmful effects, particularly on health service inequity. There is thus an urgent need to revisit these policies and to establish effective strategies and measures to ensure equitable access to quality health services. Such measures may include supporting innovative models to involve the private sector in the provision of essential health services to the urban poor and rural population; to allow tax incentives only to those private providers who also provide public health services; and greater regulation of price and quality of private health services.

**Table 5.** Top five factors contributing to the resignation of doctors in the Ministry of Public Health, in 2003

Rank	General practitioners		Specialists	
	Factor	%	Factor	%
1	Opportunity for continuing education	31.84	Administration of system	17.97
2	Workload	14.04	Income	16.99
3	Distance from home	11.98	Workload	13.40
4	Income	9.36	Hospital administration	12.75
5	Hospital administration	6.55	Quality of life	9.48

Source: Thamarangsi (2003).

Although the competing demand for limited human resources between the universal coverage scheme and the promotion of trade in health services may contribute to the internal brain drain, there are other contributing factors. A study by Thamarangsi (2003) found that the top five factors contributing to the resignation of general practitioners were opportunity for continuing education, workload, distance from home, income and hospital administration, respectively (Table 5). The most important factor for newly graduated general practitioners was the opportunity for continuing education. The main factors for trained specialists were equally attributed to non-conducive administration systems, income and workload. The non-conducive administrative systems included the vertical nature of the structure, inadequate freedom of practice, the difficult bureaucratic system, and the centralization of the administration.

Thus, in addition to strengthening the existing measures, other additional measures need to be implemented. First, the reform of the administrative systems at the local and central level is a priority issue. The Ministry of Public Health established one 'autonomous' hospital in 2001 which proved to be very successful. However, due to the desire to centralize the power structure, this movement has not progressed so far. Secondly, more non-financial incentives need to be advocated, targeted at more social recognition and greater fulfilment among rural public health personnel. Finally, the implications of broader social inequity should not be overlooked.

There is a definite demand for further research into the need for more coherence between the two dual track policies, particularly on the growth of foreign patient numbers, the trend of health seeking behaviour among the Thai, the workload of health personnel and the evaluation of all incentive schemes.

## Endnotes

<sup>1</sup> The career for Thai civil servants starts from PC level 1 rising to PC level 11. PC level 9 is the level for Deputy Director General of a Central Department or the deputy governor.

## References

- Board of Investment of Thailand. 2004. *Investment data* [online]. Bangkok: Board of Investment. Accessed August 2004 at: [http://www.boi.or.th].
- Buddhasri W, Saithanu S, Tangcharoensathien V. 2003. *Private hospital industry in Thailand after the economic crisis, 1996–2001*. A research report. Nonthaburi, Thailand: International Health Policy Programme.
- Bureau of Policy and Strategy, Ministry of Public Health. 2004. *“Thailand: Centre of Excellent Health Care of Asia” Strategies*. Nonthaburi, Thailand: Ministry of Public Health (mimeograph).
- Chalamwong Y, Tansaewee P. 2005. Movement of health care and information technology professionals in Thailand: impact implications of AFAS. *TDRI Quarterly Review* June 2005. Bangkok: Thailand Development Research Institute.
- Chanda R. 2001. *Trade in Health Services*. Commission on Macroeconomics and Health, WHO, Working Paper No. WG4: 5 June 2001. Accessed August 2005 at: [http://www.cmhealth.org/docs/wg4\_paper5.pdf].
- Department of Export Promotion, Ministry of Commerce. 2002. *Questionnaire survey of foreign patients*. Nonthaburi, Thailand: Ministry of Commerce (mimeograph).
- Department of Trade Negotiation, Ministry of Commerce. 2004. *Document for Public Hearing Session on Trade in Services under Trade Liberalisation Agreement*. 21 September 2004, Nonthaburi, Thailand: Ministry of Commerce.
- Division of Service Business. 2003. *Hospital service business*. Nonthaburi, Thailand: Department of Export Promotion, Ministry of Commerce.
- Ministry of Public Health. 2004. *Record of the loss of government officials*. Personnel Division, Bureau of Central Administration. Nonthaburi, Thailand: Ministry of Public Health (mimeograph).
- National Health Security Office and ABAC-KSC Internet Poll Research Bureau. 2004. *Results of satisfaction survey of the UC in 2003, 2004*. Nonthaburi, Thailand: National Health Security Office.
- National Statistical Office. 1991. *Report of the health and welfare survey 1991*. Bangkok: Statistical Forecasting Bureau.
- National Statistical Office. 1996. *Report of the health and welfare survey 1996*. Bangkok: Statistical Forecasting Bureau.
- National Statistical Office. 2001. *Report of 2001 health and welfare survey*. Bangkok: Statistical Forecasting Bureau.
- National Statistical Office. 2003. *Report of 2003 health and welfare survey*. Bangkok: Statistical Forecasting Bureau.
- National Statistical Office. 2004. *Population growth rate* [online]. Bangkok: National Statistical Office. Accessed October 2004 at: [http://www.nso.go.th/nso/data/data23/stat\_23/toc\_1/1.1.3.4-1.xls].

- Pannarunothai S, Tharathep C, Thamthataree J et al. 1998. *Management of public and private hospitals: a financial and business opportunities for the autonomous hospitals*. Nonthaburi, Thailand: Health Systems Research Institute.
- Stock Exchange of Thailand. 2004. *Investment information* [online]. Bangkok: Stock Exchange of Thailand. Accessed August 2004 at: [[http://www.set.or.th/static/market/market\\_u7.html](http://www.set.or.th/static/market/market_u7.html)].
- Thamarangsi T. 2003. *The study on resignation of medical doctors in Thailand*. A Research Report. Nonthaburi, Thailand: International Health Policy Programme.
- Thamarangsi T. 2004. *Analysis of information on human resources for health from 1990 and 2000 census*. A research report. Nonthaburi, Thailand: International Health Policy Programme.
- The Secretariat of the Cabinet. 2004. *Cabinet meetings and results* [online]. Accessed August 2004 at: [[http://www.cabinet.thaigov.go.th/cc\\_main21.htm](http://www.cabinet.thaigov.go.th/cc_main21.htm)].
- Vasavid C, Tangcharoensathien V, Tisayaticom K et al. 2004. Health and welfare of Thai population after universal health care coverage (UC) – Part 1: Illness, utilisation compliance of health care services of UC members. *Journal of Health Science* 13: 428–39.
- Whelan AM, Arkles RS, Dewdney J et al. 2004. International movement of skilled health professionals: ethical policy challenges for developed nations. *Harvard Health Policy Review* 5: 2.
- Wibulpolprasert S (ed). 2002. *Thailand health profile 1999–2000*. Bangkok: Express Transportation Organization Printing House.
- Wibulpolprasert S, Pengpaiboon P. 2003. Integrated strategies to tackle inequitable distribution of doctors in Thailand: four decades of experience. *International Journal of Human Resources for Health* 1: 12.
- Wibulpolprasert S, Pachanee C, Pitayarangsarit S et al. 2004. International service trade and its implications on human resources for health: a case study of Thailand. *Human Resources for Health* 2: 10.
- Woodward D, Drager N, Beaglehole R et al. 2002. Globalization, global public goods, and health. In: Drager N, Vieira C (eds). *Trade in health services: global regional and country perspective*. Washington, DC: Pan American Health Organization, pp. 3–11.

## Biographies

Cha-aim Pachanee has been working at the International Health Office, Bureau of Policy and Strategy, Ministry of Public Health, Thailand, for 5 years after receiving her undergraduate degree in Public Health (Environmental Health) and Master of International Health. Before joining the Ministry of Public Health, she was a research assistant at the Thailand Environment Institute from 1997–98. Her main interests are in international health, international trade in health services, human resources for health, health systems and health policies. Ms Pachanee is currently studying for a PhD in Epidemiology and Population Health at the National Centre for Epidemiology and Population Health, the Australian National University, Canberra, Australia.

Suwit Wibulpolprasert, MD, is a general practitioner as well as a public health man. His main focus is on health policy and planning and international health. He has been actively involved in research and development in the area of human resources for health, health economics and health care financing, international trade and health, health promotion, and control of food and drugs. Currently, he is a board member of the Health Systems Research Institute, and the evaluation board member of the Thailand Research Fund. During 2000–03, he served as the Deputy Permanent Secretary for Public Health responsible for international health and health policy. From mid-2001 to March 2004, he represented Thailand and the South-east Asia region as the member of the governing board of the Global Fund to Fight AIDS, Tuberculosis, and Malaria (GF). From November 2003 to 2006, Dr Suwit served as the President of the Intergovernmental Forum on Chemical Safety, while he is now the Senior Advisor on Health Economics, Ministry of Public Health, Thailand. [Address: 5th floor, 1st building, Office of Permanent Secretary, Ministry of Public Health, Tiwanond Road, Muang District, Nonthaburi 11000, Thailand. Tel: 66–2–5901122; fax: 66–2–5918513; E-mail: [suwit@health.moph.go.th](mailto:suwit@health.moph.go.th)]

*Correspondence:* Ms Cha-aim Pachanee, International Health Office, Bureau of Policy and strategy, Office of Permanent Secretary, Ministry of Public Health, Tiwanond Road, Nonthaburi 11000, Thailand. Tel: +61 2 6125 5611; Fax: +61 2 6125 0740; E-mail: [chaaim@health.moph.go.th](mailto:chaaim@health.moph.go.th) and [Chaaim.pachanee@anu.edu.au](mailto:Chaaim.pachanee@anu.edu.au).