

RESEARCH ARTICLE

# Medical Hub Policy of Thailand: Recommendations and Operational Integration to Mitigate the Impact on the Health System

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**Abstract:** This study reviews the development of Thailand’s Medical Hub policy and explores the recommendations and proposals for operational integration of the Medical Hub policy to mitigate the impact on the national health system, including exemplification of the medical personnel shortage in the public sector and the potential brain drain to the private sector. The scope of this study covers the implementation of the first strategic plan, “Medical Hub of Asia (2004–2008)” and the second strategic plan, “Thailand as a World Class Health Care Provider (2010–2014).” This study investigates secondary information on Thailand’s Medical Hub policy from official documents and research. It also employs purposive sampling of select experts and experienced professionals from the public and private sectors and civil society who are pertinent to the implementation of the Medical Hub policy to participate in the in-depth interviews. Inclusively, the Medical Hub policy should be implemented based on the engagement of the public and private sectors and civil society to reduce the impact on Thailand’s national health system.

**Keywords:** medical tourism, Medical Hub, recommendation, operational integration, health system, Thailand

Governments, especially in developing countries, have promoted medical tourism as a way of boosting national revenue. National medical resources are used to attract foreigners to receive medical services in destination countries (Bookman & Bookman, 2007). In Thailand, the Medical Hub policy fosters medical tourism implemented under the practical strategic plan “Medical Hub of Asia (2004–2008),” which was initiated in 2004 to promote the country as the center of medical tourism in Asia. The success of this strategic plan has been proven by an increase in the number of

foreigners traveling to Thailand for medical treatment. From 2002 to 2006, foreigners obtaining medical services and treatments doubled, reaching more than 1,373,000 persons when the “Medical Hub of Asia (2004–2008)” strategic plan ended in 2008 (Cohen, 2008; Department of Medical Service Support, 2015). The Thai government has continued to promote the Medical Hub policy, and the strategic plan “Thailand as a World Class Health Care Provider (2010–2014)” was instigated to upgrade the country to the status of a world-class destination for medical tourism.

The increasing number of foreigners using medical services in Thailand was claimed to partially improve the national economy because of potential growth in spending by foreign patients and those accompanying them who use services relating to medical tourism, such as hotels, post-medical treatment relaxation, and health spas (Pattaradul, 2008). However, the growing number of foreigners receiving medical treatment in Thailand has caused concerns about the potential impact on the national health system, particularly the inequality regarding access to medical services by local people (Pachanee, 2009; NaRanong & NaRanong, 2011). The Medical Hub policy may increase the demand for medical practitioners to take care of foreign patients, causing a brain drain of medical personnel moving from the public to the private sector to serve foreigners. Local hospitals may compete against one another on imports of expensive medical technology to attract foreign patients, pushing health care costs even higher. This may give rise to higher national health expenditure as Thai people may have to pay more for medical services at private hospitals (Pattaradul, 2008). Given postulated problems, the Thai government should instigate measures to rebalance the implementation of the Medical Hub policy to create greater benefits for the country with the least impact on the national health system.

Foreseeable inequities in the national health system resulting from medical tourism need to be reduced by applying appropriate measures. As Chen and Flood (2013) put it, health care investment for the general public with knowledgeable medical personnel in sufficient numbers and modern technology should be advocated while minimizing the promotion of medical tourism. Moreover, revenue from medical tourism should be used to support public health care services because these are crucial to the local population. However, previous studies on Thailand's medical tourism policy usually focused on its promotion and development, as well as upgrading the country's status as the center or hub for medical tourism at regional and international level (Cohen, 2008; Chokdamrongsuk, 2010; Wattanasirichaikul, 2010; Phutthakosa, 2011; Rerkrujipimol & Assenov, 2011). A number of studies considered the possible negative impact of the promotion and development of medical tourism and a Medical Hub on Thailand's health care system (Pachanee & Wibulpolprasert, 2003; Pachanee, 2009; NaRanong, 2011; NaRanong & NaRanong, 2011;

Pocock & Phua, 2011; Supakankunti & Herberholz, 2011). Although some recommendations were proposed to reduce the impact on the Thai health care system (Pachanee, 2009; NaRanong & NaRanong, 2011; Supakankunti & Herberholz, 2011; Noree et al., 2016), few studies contained policy recommendations and suggestions for operational integration administration of the Medical Hub policy to mitigate the impact on the national health system from the stakeholder perspective.

This study aims to review Thailand's Medical Hub policy development and explore recommendations and proposals for operational integration of the Medical Hub policy to alleviate the impact on the health system in Thailand for the relevant stakeholders. Within the framework of inequity, it highlights the insufficiency of medical personnel in the public sector caused by the brain drain to the private sector as an example of the possible Medical Hub policy impact on the Thai national health system. The scope of the study includes the implementation of the first strategic plan, Medical Hub of Asia (2004–2008), and the second strategic plan, Thailand as a World Class Health Care Provider (2010–2014).

## **Medical Tourism and Globalization**

Medical tourism refers to the travel of persons from one country to another with the specific objective of receiving medical treatment. Trips can be either from and to developed countries or from and to developing countries. Such trips can also be made from a developed to a developing country or vice versa. Foreign patients may pay for treatment themselves, through private insurance, or public welfare (Cohen, 2017). The principal factors enticing patients to receive medical services overseas include the possibility of acquiring medical treatment with modern technology and equipment as well as the excellent services provided by qualified medical personnel. Patients can access high-quality health care from hospitals guaranteeing international standards in destination countries at a lower cost than in their home country. The reasonable prices are, therefore, one of the key factors enabling medical tourism to grow, especially in developing countries competing with each other to become major medical care destinations for foreigners (Ricafort, 2011). For example, heart bypass surgery in Thailand's private hospitals costs around US\$14,000,

but it may be as high as US\$123,000 in the United States (Ninkitsaranont, 2019). As Snyder and Crooks (2012) put it, the recent trend of medical tourism increase the number of trips by patients from high-income to lower-income countries to receive medical services at private hospitals. An important factor in such an increase is the higher degree of travel freedom and affordability of medical treatment in developing countries. This impact of globalization contributes to the international linkage between developed and developing economies through the sharing of health care, thus fostering significant growth in the Thai economy. As the need for health care services increases all over the world, medical tourism is not only limited to medical treatment but also includes wellness services connected to other relevant businesses such as tourism, hospitality, food, and traditional medicine, which have provided greater opportunities in diversified health care markets in foreign countries (Bureau of Policy and Strategy, 2011). Due to the significant positive impact on the economy, the Thai government has realized the importance of medical tourism and continues to improve and upgrade it through the implementation of the Medical Hub policy.

### **The Impact of Medical Tourism on the Health System**

The promotion of medical tourism could impact health systems in destination countries. One major positive impact lies in the economy of destination countries earning more income from foreign patients. The accrued national revenue gained from medical tourism can subsequently be used for health care promotion and development as well as upgrading the standards of medical treatment in destination countries because there is an increasing demand for active investment in medical infrastructure, technology, and personnel to serve foreigners. Therefore, many local hospitals have made an effort to improve their service quality to obtain international standard certificates such as from the Joint Commission International (JCI) in the United States to attract foreign patients. Besides, local people in destination countries could benefit from access to improved medical treatment standards. It has been contested that a brain drain of medical personnel may not occur because they could get paid more while working in their home country (Mashayekhi et al., 2006; Hopkins et al., 2010; Johnston et al., 2010). As

the growth in transnational medical services could contribute to the expansion of private health care businesses, this would provide extensive medical service options, not only for foreigners but also for local higher-income patients. The robustness of private medical care would lessen the burden on the public sector by treating a larger proportion of the local population. This is an example of the benefit to be gained by the commodification of medical services, manipulated by market mechanisms to boost economic growth and improve medical services in destination countries (Cornell, 2015; Smith, 2012). Furthermore, the revenue from medical tourism would promote development in other sectors, such as hospitality and infrastructure, to facilitate medical tourism in return (Hopkins et al., 2010).

Medical tourism may produce negative impacts on destination countries. It may split the medical resources and services reserved for locals to support foreigners. A brain drain is inevitable as medical staff in public hospitals may move to profitable private hospitals to serve the increasing number of foreign patients and earn more pay. To promote medical tourism, the government has to attract better-off foreign investors to generate funds for building health care facilities through the provision of incentives such as tax exemption, which may affect national revenue mobilization. Moreover, a higher proportion of ownership by foreign investors may limit the ability of destination countries to maintain the income generated from foreign investment to provide utmost benefit to their health system because the profits would be transferred back to the investors' home countries (Cohen, 2017; Johnston et al., 2010). Medical tourism may result in the creation of a polarized health system in destination countries. In other words, the high-caliber private sector pays exclusive attention to foreigners and affluent patients, whereas the health care needs of the less well-off local population are responded to by inconvenient, crowded, and poor-quality public medical care. Furthermore, medical expenses in private hospitals may be pushed higher, making them unaffordable for the local people (Hazarika, 2010; Pocock & Phua, 2011; Álvarez & Chanda, 2011). This negative scenario would deflect from the principle of public health because the national budget could be reallocated to the development of medical tourism instead of improving the overall national health system, thereby underlining health inequity (Smith, 2012).

## Medical Tourism as the Cause of Inequity in the Health System

The United Nations Universal Declaration of Human Rights and the 1978 Alma-Ata Declaration by the World Health Organization clearly address that health is a fundamental human right, and there is a need for cooperation among social and economic organizations to work toward the ultimate achievement of good health for everyone (United Nations, 2015; Hixon, & Maskarinec, 2008). Health issues normally concern human morals and ethics. Therefore, health inequity must be reduced as much as possible, especially in developing countries where benefits in the health system are limited and out-of-pocket expenses for medical treatment are still high. However, the promotion of medical tourism in those countries tends to benefit transnational capitalists amidst the growth of the international economy and markets. Moreover, the promotion of medical tourism aims to serve foreigners rather than being beneficial to local people (Smith, 2012). The need for income from foreign patients contradicts with the obligation to provide necessary medical services for the general public; thus, worsening inequity in the health systems of developing countries where problems such as insufficient and uneven medical resource allocation between the public sector and the private sector still persist (Connell, 2015). Foreign patients and private health care are destined to gain the most benefit from medical tourism development. Serving affluent foreign patients may bring about the use of high-cost medical technology as well as service improvement, particularly at private hospitals. Nonetheless, this may limit the access to state-of-the-art health care services for poorer locals provided by the private sector (Hopkins et al., 2010). Furthermore, medical tourism raises moral concerns in destination countries. Even though it may be claimed that profits gained from medical tourism can be used to improve the national health system, the outcome is uncertain because preparedness for responding to the impact of medical tourism still depends on the particular political and economic context of the destination country (Snyder, & Crooks, 2012).

## Methods

The objective of this study on Thailand's Medical Hub policy is to seek recommendations on its

operational integration to mitigate the impact on the national health system, employing the documentary research and semi-structured in-depth interviews. It covers the first strategic plan to upgrade the country as the Medical Hub of Asia (2004–2008) and the second strategic plan to develop Thailand as a World Class Health Care Provider (2010–2014). Firstly, secondary information was obtained from official documents and research on Thailand's Medical Hub policy, covering the first and second strategic plans to synthesize the development of the policy. The purposive sampling method was used to select informants, consisting of experts and experienced professionals, to participate in in-depth interviews concerning the implementation of the Medical Hub policy. The selected informants included seven representatives from the public sector, the private sector, and civil society. Three public sector representatives were selected, two of whom were from public health organizations, and the other is a social and economic planning authority. Two private sector representatives were chosen, one of whom was from a private hospital association, and the other a private hospital. For the civil society, one representative was selected from a higher education institution and one from a non-governmental organization on consumer protection. Semi-structured in-depth interviews were conducted with all selected informants to obtain primary data using four sets of questions, focusing on the successes and obstacles of medical tourism promotion and the Medical Hub policy as well as the overall negative and positive impacts on the Thai health system for both the public and private health care sectors. The questions also included inquiries about recommendations and operational integration of the Medical Hub policy to attenuate the impact on the health system of Thailand. All collected data were analyzed using content analysis. This study gained a certified research ethics clearance in social sciences, numbered 2017/193 (B2) from Mahidol University.

## Results

### *The Development of Thailand's Medical Hub Policy*

Synthesized from research and official documents on the development of Thailand's Medical Hub policy, the results of this study reveal that medical tourism in Thailand first evolved in the late 1960s with a focus on aesthetics and alternative medical treatment such

as herbal medicine, which had gradually become popular among foreigners. Since then, the demand for aesthetic and alternative medicine in local clinics and hospitals has continuously increased. In the late 1980s, however, a growing number of private hospitals were using modern technology for allopathic medicine and employing medical graduates from Western countries, undermining the existing aesthetic and alternative medical services. As the Thai medical services became more advanced in science-based medicine with technology-based treatment, such as heart surgery and experimental stem cell treatment, including preventive measures such as medical check-ups, Thailand's medical competency was raised to a higher standard, becoming the main destination for modern medicine in the Asian region (Cohen, 2008). The important turning point for Thailand's medical tourism occurred after the 1997 economic crisis when the country faced negative economic growth of minus 10%. Before the crisis, between 1991 and 1999, investment and expansion in the medical business through the establishment of private hospitals was booming. The number of beds in private hospitals increased from 14,927 to 40,825, equivalent to 173.5% in a decade. After the crisis, private hospitals experienced a sudden drop in the bed occupation rate, especially those providing high-end services for well-off Thais, resulting in a significant income decrease. Therefore, the private hospitals needed to change their business strategy by vigorously attracting a greater number of foreign patients with high purchasing power from countries and regions such as Japan, Europe, and the Middle East to supplement the loss of rich locals. To boost the stagnated economy, the government initiated the Medical Hub policy to revitalize the medical business to obtain foreign income through the promotion of medical tourism to attract both medical tourists and expatriates to Thailand's high-quality medical services with lower prices and superb hospitality (Supakankunti & Herberholz, 2011; NaRanong, 2011). A concrete policy for medical tourism has thereafter emerged with the formulation of two strategic plans under the Medical Hub policy, namely the first strategic plan, Medical Hub of Asia (2004–2008), and the second strategic plan, Thailand as a World Class Health Care Provider (2010–2014).

#### ***Medical Hub of Asia (2004–2008)***

The first strategic plan, the Medical Hub of Asia (2004–2008), was formulated based on the tourism

promotion slogan “Amazing Thailand,” with an emphasis on enhancing medical tourism in the Asian market, reflecting the beginning of the establishment of Thailand's status as a tangible medical center in Asia (Cohen, 2008). To formulate this strategic plan, the government firstly organized a meeting with executives from the Ministry of Public Health, Ministry of Tourism and Sports, Ministry of Commerce, and Ministry of Finance in May 2003 to upgrade the country as a Center for Excellent Health Care in Asia. It was the Department of Policy and Strategic Planning of the Ministry of Public Health that consolidated the said policy until finalizing the five-year strategic plan, Medical Hub of Asia (2004–2008). The government allocated a budget of 564.5 million baht (US\$18.5 million) in June 2004 to support a number of private hospitals to improve service capacity and upgrade the quality of their services to gain international standard certification for exposure to the overseas health care market (Supakankunti & Herberholz, 2011). During the implementation period of the first strategic plan, roadshows were organized in Thailand and abroad, including an exhibition entitled “Thailand Health Expo” to which representatives from over 80 travel agencies and local hospitals were invited to create a joint network of medical tourism. In 2008, the promotion of the Medical Hub was reconsidered with greater emphasis placed on improving service quality to match international standards, cooperation between the private and public sectors, and amendment of the relevant laws and regulations to facilitate operations under the Medical Hub policy and maintain Thailand's status as the center for health care in Asia. Since the first strategic plan, the Medical Hub of Asia (2004–2008) was mainly aimed at achieving a favorable economic outcome for the Medical Hub policy; it attracted a greater number of foreigners to Thailand for medical purposes. The number of foreigners admitted to Thai hospitals reached over a million for the first time in 2004. Subsequently, this figure rose to around 1.25 million and to over 1.37 million between 2005 and 2007 (NaRanong, 2011). The main group consisted of Japanese patients, accounting for 25.8%, followed by patients from the United Arab Emirates, who accounted for 24.7% of the total number of foreign users (Office of Small and Medium Enterprise Promotion, 2010). In its final year of implementation, the Medical Hub promotion generated revenue for Thailand of approximately 52 billion baht (US\$1,705

million) in 2008, representing an increase from around 23 billion baht (US\$754 million) in 2004 (NaRanong & NaRanong, 2011; Udol, 2004).

An interview with a private sector representative revealed a positive impact on the first strategic plan on the economy. The Medical Hub policy contributed to a boost in revenue for the country as well as many businesses such as hospitality entrepreneurs and retailers, apart from the health care sector.

The (Medical Hub) policy has generated income for the country and health care businesses. Money flowed into Thailand and hospitals provided medical services, particularly for foreigners. A lot of businesses, like hotels, shops and so on, whether big or small, have also benefited from the Medical Hub policy, not only the hospitals. (Private sector representative B)

#### ***Thailand as a World Class Health Care Provider (2010–2014)***

Due to the increasing number of foreigners coming to Thailand to receive medical services and the rise in national income, the National Economic and Social Development Board and the Ministry of Public Health continuously supported the Medical Hub policy by formulating the second strategic plan, Thailand as a World Class Health Care Provider (2010–2014). The aim of the plan was to increase the number of foreign patients, improve the qualifications of health personnel to enhance competitiveness in medical service provision, and promote Thailand as the academic medical hub of Asia. Medical services in both public and private hospitals were required to achieve international standard certification based on the application of advanced medical knowledge to create unique value-added services. Value creation through active investment in advanced medical services was designed to enhance Thailand's expertise in medical tourism. Medical services destined for promotion included dentistry as well as other forms of medical establishments such as a center for health excellence, a health promotion center, and a long-term care center for the elderly (Phutthakosa, 2011). The second strategic plan focused on the economic benefit, expecting it to generate an increment in national income from medical services for foreigners of up to 281,945 million baht (US\$9,244 million) or over 97.3% by the end of the plan (Kanchanachitra et al., 2012; NaRanong, 2011).

To achieve this economic goal, relevant public agencies affirmed the implementation of the proposals specified in the second strategic plan. The Board of Trade of Thailand instigated the strategy to promote the health care business by amending government rules and regulations to ease private sector investment and create opportunities for health care market expansion. The Board of Investment's strategy included improvement in the quality and standard of health care products and services in its operational plan to strengthen the competitiveness of the health care industry and improve the efficiency of the health care market (Phutthakosa, 2011). In addition, the Ministry of Public Health was restructured through the establishment of the International Health Center Administration Commission, which was responsible for its fundamental operation in response to the Medical Hub policy. The roles of the Commission were to determine directions for Thailand toward achieving the status of a Medical Hub by cooperating with related sectors and networks as well as developing policy proposals for further implementation by the government. The Commission also highlighted the quality improvement of clinics and nursing centers for dentistry and plastic surgery located in tourist areas (Bureau of Trade in Services and Investment, 2011). As part of its medical tourism promotion, in 2010, the Tourism Authority of Thailand launched the "E-Marketing Campaign for Medical Tourism in Thailand" with a website to provide information on Thailand's medical tourism (Ricafort, 2011). To encourage health care investment, the Board of Investment carried out a study as to the feasibility of building more health care facilities to expand the capacity of the health care sector for investors interested in establishing new health care centers. Investment regulations would be relaxed to allow investors to build new hospitals with less than 30-bed capacity, replacing the former regulations that limited them to only cover the construction of hospitals with a 50-bed capacity. The tax exemption period would be extended from five to eight years if investors wished to construct rehabilitation centers, specialized medical centers, and medical technology centers, including the delivery of health care products and services. Imported medical equipment was also exempt from taxes throughout the period of the investment project. Moreover, a seminar facility was organized in 2011 with the National Health Commission to set up a working group to draft principles and generate

a framework for the further promotion of health care investment. However, during the implementation of the second strategic plan, the government began considering the impact of the Medical Hub policy on the Thai health system. Therefore, it remarked that measures implemented by public agencies should be carried out on the basis that the impact is minimized on the overall health system of the country. A public hearing on health care investment was therefore organized to prevent any negative impact but without consolidated recommendations and concrete initiatives (Phutthakosa, 2011; Kanchanachitra et al., 2012). With the implementation of the strategic plan, Thailand as a World Class Health Care Provider (2010–2014), the number of foreigners coming to Thailand for medical treatment surged from about 935,000 in 2010 to about 1,200,000 persons in 2014 (Department of Medical Service Support, 2015).

### **Medical Personnel as an Example of the Medical Hub Policy Impact on Thailand's Health System**

The impact of the Medical Hub policy on the health system of Thailand is exemplified by medical personnel. It involves the issue of imbalance between the production of medical personnel needed for Thai nationals and the demand for medical staff in medical tourism to serve foreigners. Medical schools in Thailand have attempted to increase their capacity to produce a greater number of medical doctors. According to information from the Medical Council of Thailand, 2,537 medical students successfully completed their education in 2012, whereas only 899 medical students finished their studies and received medical degrees in 1996 (Phuttachak, 2017). During the 10-year period between 2004 and 2014, alongside the implementation of the strategic plan, Medical Hub of Asia (2004–2008), and the strategic plan, Thailand as a World Class Health Care Provider (2010–2014), the accumulative number of medical graduates and who are still working reached 30,565. Nonetheless, they had an obligation to treat around 65 million Thai people with a ratio of one medical doctor to 4,000 people in 2011 (NaRanong & NaRanong, 2011). This ratio attested to the limitation of effective medical treatment in Thailand because it was below the standard suggested by the World Health Organization in that the ratio of medical doctors to the population

should be 1:1,000 (Kumar & Pal, 2018). The Medical Council of Thailand conducted a survey on the reasons for medical doctors leaving the public sector in 2015 (Ariyasriwatana, 2007). The results revealed that the main reasons for medical doctors resigning from their positions were (a) the heavy workload, (b) risks such as malpractice lawsuits, (c) the feeling of being taken advantage of by seniors, and (d) bureaucracy, including low, insufficient, and inappropriate remuneration and being assigned to work in remote and dangerous areas far away from their family. In this survey, out of 850 respondents, 55.18% were 469 medical doctors working in private hospitals and partly serving foreign patients (Phuttachak, 2017).

Besides medical doctors, Thailand managed to produce 150,085 nurses between 2004 and 2014. Of these, 129,529 served in public hospitals, whereas 17,584 nurses worked in private hospitals, with 2,986 in other organizations such as community and private clinics. The ratio of nurses working in private hospitals to those in public hospitals was 1:7.4. During this period, Thailand was still facing a shortage of nursing manpower, with an estimated demand of 30,000 additional nurses to serve the Thai population (“Panha phayaban thai,” 2016). The major contributing factors for the shortage were structural changes in the population, especially the increasing number of elderly, changes in illness patterns with more Thai people suffering from chronic diseases, and the Medical Hub policy. The promotion of the Medical Hub policy meant that more foreigners were able to receive medical treatment in Thailand, and a greater number of nurses are showing a strong interest in working for foreign patients. Therefore, the brain drain involving nurses from the public sector moving to the private sector intensified. A quick expansion of private medical businesses for foreigners without proper medical workforce planning aggravated the shortage of nurses working in the public sector for Thai nationals (Khunthar, 2014).

During the in-depth interviews with informants, the impact of medical personnel on the Thai national health system was frequently mentioned. In other words, it was probably the case that medical personnel in the public sector showed a willingness to work for the private sector and treat foreign patients because of the lighter workload and better remuneration. The opinions were categorized into two groups. Informants in the first group confirmed that the medical personnel

shortage in the national health system was an outcome of the Medical Hub policy promotion, whereas the second group contended that the Medical Hub policy was not the direct cause of this shortage but rather as a result of other associated factors.

In the first group, a civil society representative expressed the view that the national health system was truly affected because medical personnel were moving from the public to the private sector to serve foreign patients under the promotion of the Medical Hub policy.

Of course, the increasing number of foreigners using medical services under the promotion of the Medical Hub policy here (in Thailand) creates greater working opportunities for medical personnel; so those working for the public sector will certainly move to the private sector. (Civil society representative B)

However, in the second group, some representatives from the public sector and civil society opined that the impact of the medical personnel shortage on the Thai health system was not directly caused by the Medical Hub policy; there were other factors involved.

In terms of medical personnel, even if no Medical Hub policy existed at all, there would be other factors rousing them to work for the private sector. For instance, large numbers of medical personnel living in urban areas have left the public sector to work in private hospitals located in cities....There are many reasons for this mobility. (Public sector representative C)

One can't say that working for the private sector is bad. If the private sector isn't involved, the health care situation in Thailand may get worse because of insufficient public services...In terms of brain drain (to the private sector), it can't clearly be said that it is because of the Medical Hub policy. (Civil society representative A)

### ***Recommendations on the Implementation of the Medical Hub Policy to Mitigate the Impact on the Health System in Thailand***

The recommendations for reducing the impact of the Medical Hub policy in Thailand's health system have been derived from in-depth interviews with

representatives from the public and private sectors as well as civil society.

### ***Recommendations From Public Sector Representatives***

- Efficiency improvement in the evaluation of the Medical Hub Policy

There are weaknesses in the evaluation of the Medical Hub policy that question its achievement of real benefits to the country. Although the policy is evaluated on the basis of key performance indicators, there is evidence to support its capability. Therefore, the public sector should improve the evaluation system for the Medical Hub policy to assess its impact on the national health system.

The evaluation system for the Medical Hub policy should be improved. It must be capable of finding out what kind of impact (on the national health system) could occur... When an evaluation comes about, it only fulfills the key performance indicators. It is okay if the overall evaluation is satisfactory, but if some indicators have no capacity to evaluate the real benefits (of the Medical Hub policy) for Thailand, we won't know its impact on the health system. (Public sector representative C)

- Formulation of the joint Medical Hub Policy between the public and private sectors

The Medical Hub policy requires tangible formulation with cooperation between the public and private sectors. The public sector should take the lead in formulating the policy while the private sector should participate in the policy formulation and act as the operator. It was proposed that there be a mechanism for joint policy formulation between the public and private sectors in order to reduce the impact on the national health system.

It is evident that the Medical Hub policy operation is carried out by the private sector...The public sector is the leader in formulating the policy. To reduce the impact



on the Thai health system, how can we mobilize the role of the private sector to think and join with the public sector (in formulating the Medical Hub policy)? There should be a system for joint formulation of the policy by the public and private sectors. (Public sector representative A)

### ***Recommendations From Private Sector Representatives***

- Medical resource sharing between private and public sectors

A representative from the private sector opined that medical resources between the public and private sectors should be shared. For example, in terms of new medical technology, the private sector should cooperate with public medical schools in sharing the use of medical technology imported by the private sector and allow medical lecturers to use it for medical training. In addition, private hospitals should share the medical services and personnel allocated for foreign patients with public hospitals to treat Thai people.

New (medical) technologies are mainly imported by the private sector, and we (the private sector) can offer solutions for public medical schools to benefit medical studies... Lecturers (of public medical schools) can utilize these innovations to train medical students... To benefit the Thai people, private hospitals can share services and personnel reserved for foreigners with public hospitals. (Private sector representative B)

- Support for medical innovation development

The government must provide support for medical innovation development to enhance competitiveness and the generation of health care at a reasonable cost. For instance, in terms of purchasing expensive imported drugs, the government should support the production of quality drugs with medical technology development to reduce the cost of imported drugs. Drug innovation could contribute to an increase

in affordability and greater access to costly quality drugs dispensed at private hospitals for Thai people, whereas the private hospitals could still retain services for foreign patients under the promotion of the Medical Hub policy.

The private sector can't work alone as we need government support. The government should support medical innovation... We have problems with expensive drugs purchased from abroad, so if costly drugs could be produced locally with technological support from the government, the drug prices would decrease and the health care cost reduced... Thai people could also afford expensive drugs produced in the country and receive treatment at private hospitals, while we continue providing services to foreigners. (Private sector representative A)

- Lowering of operational costs in the private sector with supportive measures

The government should provide support to the private sector to decrease operational costs with measures such as tax reduction or exemptions for imported medical equipment. This is to enhance access to medical services at private hospitals for Thai patients from wider social classes so that private hospitals are less dependent on income from foreign patients.

The government must provide support to the private sector to reduce the operational cost of private hospitals... Once the operational cost has been lowered, more Thais, both rich and poor, can use our services (at private hospitals). Private hospitals will then be dependent on income from foreigners. (Private sector representative A)

### ***Recommendations From Civil Society Representatives***

- Implementation of the Medical Hub Policy based on transparency and public interest

The government should implement the Medical Hub policy based on transparency and

public interest to enable Thai people to achieve a healthy life.

For whom are the benefits of the Medical Hub policy intended? We would like to see Thai people having a healthy life, and their illnesses must not be a social burden. So we think that when implementing the Medical Hub policy, the government should be transparent in the fact that public interest must be prioritized. The response to this concern should be clear. (Civil society representative B)

- Principles of health abundance as a fundamental right

To successfully implement the Medical Hub policy, the government should hold on to the principle that health is a fundamental right of Thai people. “Despite the Medical Hub policy, the government should solve health problems of Thai people first...Being healthy must be the fundamental right of Thai people” (Civil society representative A).

- Limit the role of the private sector with price controls and tax collection without undermining the Medical Hub Policy

Given that the private sector is the main provider under the Medical Hub policy, the government should control the cost of medical treatment in the private sector. Business income taxes on services provided to foreigners should be levied. These taxes should be used to improve the overall quality of national medical services to benefit the Thai people. In addition, the government should play down the promotion of the Medical Hub policy because the active promotion has a spillover effect, leading to an increase in the cost of medical treatment, which could hinder access to medical services at private hospitals for Thai people.

The government should think of ways to control medical treatment prices in private hospitals... Taxes should be collected from health care businesses in the private

sector to improve the quality of national medical services to benefit Thai people... The government shouldn't support the Medical Hub policy too much as it will limit access to medical services at private hospitals for Thai patients. (Civil society representative B)

### ***Operational Integration of the Medical Hub Policy to Mitigate the Impact on Thailand's Health System***

The following recommendations were proposed for improving the operational integration of the Medical Hub policy to mitigate the impact on the health system in Thailand. From the in-depth interviews, only representatives from the public sector and civil society offered suggestions.

- Establishment of a coordinating center for the Medical Hub Policy

A coordinating center for the Medical Hub policy should be established to serve as a forum to centralize all related tasks. Such tasks should include coordinating with related stakeholders on administration aspects such as organizing meetings, the provision of information relating to the Medical Hub policy, and complaint management concerning the impact on Thailand's health system. The coordinating center would then take over the role of the Ministry of Public Health, which is currently responsible for these tasks.

There should be a host organization in charge of coordination on issues relating to the Medical Hub policy... Various related stakeholders are involved in Medical Hub issues, including the public sector, the private sector, the people and so on... Therefore, a coordinating center is needed to replace the Ministry of Public Health to coordinate with these stakeholders, and carry out the administration aspects such as holding meetings. It would also provide information (on the Medical Hub policy) and deal with complaints about the impact on the country's health system. (Public sector representative B)

- Establishment of a medical quality and price control organization

The Medical Hub policy aside, the government should establish a quality control organization in cooperation with the private sector to screen medical technology utilization for appropriateness and control charges to prevent Thai people from paying a high cost for medical services at private hospitals. At the same time, the Medical Hub policy should be implemented in such a way that Thai people can access quality medical services at reasonable prices.

Implementation of the Medical Hub policy has resulted in the increasing use of medical technology for foreigners in the private sector...The government should set up an organization with the cooperation of the private sector to screen suitable technological use and control hospital charges to enhance access to medical services at private hospitals for Thai people too. (Civil Society representative B)

Despite the proposals for the operational integration from the private sector and the civil society representatives, a representative from the private sector reserved their opinions on these proposals contending that:

We (the private sector) have used our own money to invest in medical services and building hospitals without financial assistance from the government. How could we sustain our business with declining profits if we are obliged to work for the general public by integrating our operations with other sectors? (Private sector representative B)

## Discussion

The Medical Hub policy was developed from the need for a concrete policy to respond to the increasing number of foreign patients receiving medical treatment in Thailand, especially at private hospitals. Although the majority of patients at private hospitals are affluent

Thais, private hospital income declined as the number of patients decreased after the economic recession in 1997. Therefore, the private hospitals needed to adjust their strategy to seek income from foreigners in better-off countries who come to Thailand for medical purposes. The Thai government, at that time, found a solution to this problem with the formulation of two strategic plans: the Medical Hub of Asia (2004–2008) and Thailand as a World Class Health Care Provider (2010–2014). These flagship plans were formulated under the Medical Hub policy. Both strategic plans were aimed at increasing national revenue by attracting a greater number of foreigners to Thailand to receive medical services. The two strategic plans were implemented under the joint authority of relevant public agencies such as the Ministry of Public Health, the Ministry of Tourism and Sports, the Ministry of Finance, the Board of Investment, and the Ministry of Commerce, with the intention of mobilizing concrete, practical measures to promote medical tourism in Thailand under the promotion of the Medical Hub policy.

Throughout the implementation of the two strategic plans, the number of foreign patients bringing revenue into Thailand increased continuously, reflecting the success of the Medical Hub policy. However, such an influx has impacted on Thailand's health care system, particularly in terms of the shortage and brain drain of medical personnel from the public sector to the private sector. Despite the government's attempt to increase the production of medical human resources, the excessive workload and lower pay in the public sector have discouraged medical doctors and nurses from continuing to work at public hospitals, causing them to move to the private sector. Even though some informants opined in the interviews that the Medical Hub policy was not the direct cause of the brain drain, they inferred that it had created a polarized health system in Thailand. That is, medical treatment at public hospitals is provided for the ordinary Thai population, whereas medical services at private hospitals are for foreigners and rich locals.

With such inequity, the stakeholders from the public and private sectors, as well as a civil society, proposed recommendations and proposals for the operational integration of the Medical Hub policy to alleviate the impact on Thailand's health system. One recommendation was to improve the efficiency evaluation of the Medical Hub policy by the public

sector to achieve an accurate assessment of its impact on the national health system. Another recommendation was to formulate a joint Medical Hub policy with the public sector taking the leading role and the private sector the operator role. It was proposed that medical resources be shared between the public and private sectors, thereby supporting medical innovation development and lowering operational costs in the private sector with supportive measures. The role of the private sector should also be limited to the use of price controls and tax collection, without undermining the Medical Hub policy. These proposals would enhance access to medical services at private hospitals for Thai people, whereas the private sector could continue to serve foreigners under the Medical Hub policy. Above all, the government should implement a Medical Hub policy on the basis of transparency and public interest, adhering to the principle of health as a fundamental right of the Thai population to gain the utmost benefit from the policy.

The recommendations for alleviating the impact of the Medical Hub policy on the Thai health system substantially reflect a key role of the public sector in policy formulation through planning and empowering related public agencies, guided by the two strategic plans. Although the provision of medical services for foreigners has depended on the role of the private sector, the principle of health as a fundamental right, raised by the civil society representative, has not been well perceived. Therefore, the public sector representative proposed that the operational integration of the Medical Hub policy for alleviating the impact on the health system in Thailand should focus on establishing a coordinating center, which would be responsible for centralizing works relating to the Medical Hub policy and cooperating with related stakeholders. Moreover, the civil society representative also proposed the establishment of a medical quality and price control organization to operate in collaboration with the private sector to screen medical technology to ensure its proper use and implement cost reduction procedures to enhance the accessibility to medical services at private hospitals for Thai people, despite service provision for foreign patients. The contention by the private sector about unsubsidized investment in the provision of medical services implies the need for concrete guidelines on operational integration, notwithstanding the Medical Hub policy, to encourage the private sector to participate with the public sector and civil

society. In other words, despite the proposal for cost reduction in the private sector to embrace wider groups of Thai people in private care, it also needs to carry on providing medical services for foreign patients and well-off locals to make a profit. To date, the Medical Hub policy is continuing with a new 10-year strategic plan, “The Strategic Plan to Become a Medical Hub (2017–2026).” Implementation of the policy should be based on the integrative approach of stakeholder engagement with the public and private sectors as well as a civil society so as to mitigate the impact on the health system in Thailand to provide the utmost benefit to the Thai people. This proposition should be considered by other countries effectuating medical tourism for the sake of the general public.

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### **Declaration of ownership**

This report is my original work.

### **Conflict of interest**

None.

### **Ethical clearance**

This study was approved by the institution.

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