

# Feasibility and Acceptability of Long-Staying Healthcare Service Facilities in Developing Areas

Hajime Eto<sup>1\*</sup>, Pimonwan Mahujchariyawong<sup>2</sup>

<sup>1</sup>University of Tsukuba, Tsukuba, Japan

<sup>2</sup>Kasikorn Research Center, Bangkok, Thailand

Email: [etohajime@peach.ocn.ne.jp](mailto:etohajime@peach.ocn.ne.jp), [Pimonwan.M@kasikornresearch.com](mailto:Pimonwan.M@kasikornresearch.com)

Received 15 October 2015; accepted 16 November 2015; published 19 November 2015

Copyright © 2015 by authors and Scientific Research Publishing Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

## Abstract

This paper proposes to construct long-staying healthcare service facilities in developing areas for the purposes to serve the local people and the visiting people from the distant areas including developed areas or foreign countries. This is a new business model of half-public and half-private character to complement the insufficiencies of and to fill the gaps between the governmental medical aid from developed countries to developing countries and the medical tourism from developed areas to developing areas or *verse versa* mainly at individual levels. Using a set of conceptual methods like need analysis, obstacle analysis, conflict analysis and complementarity analysis, this paper examines the merits and the problems of the proposed third type (eclectic) system to healthcare service providers, service users, the host areas and the local communities.

## Keywords

Elderlies, Healthcare Service, Hospice, Hospitality, International Medical Aid, Medical Tourism, Need Analysis, New Business Model, Nursing Home, Obstacle Analysis, Wearable Medical Apparatus

---

## 1. Introduction

### 1.1. Problem Statement

It is difficult to deliver healthcare service to everybody and everywhere [1] [2]. In particular, the delivery of

---

\*Corresponding author.

healthcare to foreigners and elderlies meets obstacles [3]–[5]. International medical aid mainly by government and medical tourism mainly by business have contributed to the dissemination of healthcare resources to developing areas and to the fosterage of healthcare professionals in such areas. This paper extends these ideas to the constructions of long-staying healthcare service facilities like sanatoriums, nursing homes, rehabilitation centers, hospices, and the likes in developing areas. Then this paper assesses the feasibility or marketability mainly on the sides of healthcare service providers, and the acceptability mainly to service users and host areas. Hereafter, “healthcare” is sometimes abbreviated as “care” when the medical factor is weak.

## 1.2. Aim and Scope of This Paper

The aim of this paper is to propose and assess the idea to construct long-staying healthcare service facilities in developing areas both for local patients and elderlies (users hereafter) as in medical aid and for visiting users from other areas including foreign countries as in medical tourism. For this aim, this paper briefly reviews both problems of medical aids and medical tourism to learn lessons. Then this paper analyzes the needs and their satisfactions on both sides of healthcare service providers and users, the social and economic feasibility including the business opportunity and marketability, and the socio-cultural conflict with and acceptability to the local communities in host areas by complementing the benefits of each other.

## 1.3. Method

This paper uses a set of conceptual analysis methods rather than mathematical, statistical or interview methods. Learning the lessons from nationwide or international sanatoriums for chronic diseased patients and international medical aid programs by government, this paper applies the methods of need analysis, obstacle analysis, conflict analysis and complementarity analysis [6]–[9] to the idea of international healthcare service facilities.

## 1.4. Planning and Managing Process and the Definitions of Terms

The terms used in this paper are defined not in a verbal way but as the roles to play in the planning and managing processes.

Step 1. The *healthcare-service provider* (*donor* in governmental medical aid, and *sponsor, promoter* or *investor* in medical tourism business) examines the need of healthcare-service *users* (patients, elderlies, etc.) and promotes the construction of a healthcare-service facility (hospital, sanatorium, nursing home, hospice, etc.) in a developing area (*host area*) for *visiting long-stay users* of *local residents* and for users from *distant areas* (including foreign countries).

Step 2. The *community* (local governments, resident’s associations, etc.) of the host area *accepts* it.

Step 3. The *healthcare-service users* or *patients* (diseased, handicapped, elderly people, etc.) come from everywhere (abroad or host area) to receive the healthcare services.

Step 4. The healthcare-service users (simply *care-service users* or *users*) can stay in or outside the facility (*in-user* or *out-user* like in-patient or out-patient in hospital) [10].

Step 5. The healthcare-service users (particularly from distant areas) can possibly enjoy the *communication* (e.g., recreational activities) with the *community* in the host area.

Step 6. The care-service users receive various *services* possibly including religious services from the facilities or the community.

Step 7. The care-service users can stay there long possibly to the end: *terminal care* [11].

Step 8. Users staying outside the facility can use wearable medical apparatus. The obtained information can be sent to the facility and, upon request, to the family at the home (*remote monitoring system*).

Medical service, healthcare service, care service and welfare service are not synonymous but often indistinguishable and overlapping. Hereafter these words are used as nearly synonyms with slight differences in nuance.

## 1.5. Structure of This Paper

Section 2 reviews the present problems around healthcare services. Section 3 reviews the problems of retirees and other expected care-service users. Section 4 discusses the cultural and other gaps between areas or countries. Section 5 examines the feasibility, marketability and acceptability of the proposed facilities to both sides. Section 6 reviews several sites for the possible constructions. Section 7 states the conclusion.

## 2. Problems of the Healthcare for Care-Service Users

### 2.1. Obstacles and Difficulties

The international medical aid by governments is a humanitarian aid to developing countries for the benefit of the local people without regard to the economic benefit of the donors. Without economic incentive, the donors are often reluctant to international medical (and other) aid. Or, the donors may not be sufficiently careful about the host areas and the local people there by implicitly taking the own benefits into consideration. This is seen for Japan as the leading donor in Southeast Asia. In the recent decades, indeed, larger parts of Japanese aid are in the form of loan aid than grant aid [12]. These problems tend to obstruct the successes in international aids.

At private or individual levels, meanwhile, healthcare-service users (mainly the diseased) visit medical facilities with modern equipment (often in big cities) distant from home or even from abroad for the purpose of hospitalization, surgical operation and other modern treatments. Meanwhile, some of care-service users in developed countries avoid the expensive facilities in developed areas (or countries) and choose the facilities in developing areas (or countries) for the reasons of cost and cultural (often language or religious) familiarities. Many patients of tuberculosis in cities are hospitalized in sanatorium in clean air areas. These are called the medical tourism [13]. Medical tourists (healthcare-service users) stay in the destinations (mainly hospitals or sanatoriums) for several weeks, months or years. When the destination areas are the homelands of healthcare service users, they want to stay there to the end of the life (terminal care). Even if not the homeland, some areas may be the spiritual (the mother languages or religious) homelands of users [14] [15]. Then they may want to have the terminal care there. Otherwise, the healthcare-service users often feel alienated.

A classic form of long-staying medical tourism is seen in sanatoriums mainly for chronic-diseased patients like tuberculosis or Hansen's disease (*lepra*, *leprocy*) patients, who suffered for many years possibly until the end of life. The Empress Komyo and later a Buddhism priest Ninsho constructed long-staying hospitals for Hansen's diseased and other chronic diseased patients in the 700 s and the 1200 s, respectively. In an international aspect, a German doctor Erwin von Baelz believed the medical efficacy of hot spring water and planned to construct a long-staying hospital for Hansen diseased patients in Kusatsu Spa, Japan, in the late 1800 s by bringing the patients from Europe to Japan via Siberia or the Indian Ocean, although the Japanese government and the local residents finally rejected his plan.

Another classic form of medical tourism is to own second houses in healthy places (clean air, etc.) and stay there for the vacation or after the retirement at an individual level. Its variant is to stay long in hotels for treating the diseases in healthy place or hot-spring areas [16].

Sanatoriums or second houses are usually located in countryside or resort areas, and the users stay there several months or often years for spending peaceful lives possibly rather than medical treatment. Care houses, nursing homes, hospices accept and care the users usually for years possibly to the end of life as the terminal care [17]. As their communications with the communities of the host areas or the religious services to them are often poor, long-staying users tend to feel alienated from the society or lose their spiritual lives and tend to lose the morale to live long. This obstructs the longevity in medical tourism.

The health insurance is a problem for international medical tourism. The system varies from one country to another. This promotes or obstructs international medical tourism [18]. The visa system is another problem. The long-stay visa system is needed for medical or healthcare tourism. Thailand and Malaysia issue the long-stay (10 years) visas.

### 2.2. Healthcare Workforce

The healthcare professionals are scarce in many countries. In medical tourism, India is in a favorite condition because of the big population of English speaking medical staff [19]. Malaysia is also in a favorite condition [20] not only because of the English speaking population but also the cultural similarity with the oil-rich Arabic countries [21].

In many countries, the healthcare sectors suffer from the workforce shortage, although healthcare workforce is critically important for the healthcare quality [22] [23]. Japan offers a nurse-training program and calls for the trainees from Southeast Asia, particularly, from Indonesia, to train them in Japan. The obstacles are the language gap and the food difference between Japan and Indonesia. For example, the Indonesians like spicy food and do not eat pork (*halal* or *haram*). One solution is that the care-service users (patients, elderlies, etc.) go and stay

abroad. The problems of staying abroad are the gaps in language, customs, food, culture, climate, and others. When a providing country constructs healthcare-service facilities abroad, the local workforces in the host areas are employed as the staff there. In this situation, the language and other cultural gaps take another form: the language and cultural gaps between the local staff and the healthcare-service users from abroad. As these problems are directly related to the quality of healthcare service [24], some training programs may be needed for both sides.

### 2.3. International Assistance in the Aged Society

International cooperation is important in the world [25]. This is executed by various institutes (e.g., JICA: Japan International Cooperation Agency). Until 2013, Thailand had received JICA technical assistance on 156 projects and 216 development studies worth THB67.4 billion (JPY222.498 billion), as well as THB52 billion (JPY170.235 billion) in grant aid. Meanwhile, Thailand received ODA loans for 242 projects that totaled THB656 billion (JPY2198.621 billion) including large projects such as the mass-transit system in Bangkok and Suvarnabhumi Airport (Ministry of Foreign Affairs of Japan, 2013). Here, ODA denotes Official Development Assistance by government.

Since Thailand has joined the ranks of upper-middle income countries, the recent aids from Japan to Thailand are mainly in the form of assistance for sustainable social and economic development. The issues being addressed by JICA's assistances include the enhancement of industry competitiveness, the measures for the aging population and socially vulnerable people, as well as environmental problems and climate change. One of the focused issues of JICA's supports to Thailand is the cooperation to improve social services and healthcare concerning senior citizens [26].

According to Thailand's National Economic and Social Development Board, Thailand has already become an aging society (7 - 14 percent of the entire population is age 65 or older), and is expected to enter an aged society (14 - 21 percent is age 65 or older) by 2024. An example of JICA's Cooperation on Aging Society is "Project for the Long-term Care Service Development for the Frail Elderly and Other Vulnerable People", which provided model service, and training programs of the care workers and coordinators. In addition, because public care facilities for the aged are scarce with only 2 places in Bangkok, Japanese Chamber of Commerce in 2005 donated for expansion of the facilities at Ban Bang Khae Social Welfare Development Center for Older Persons in Bangkok [27] [28].

### 2.4. Native and Spiritual Homelands

Many people feel easy, relaxed, peaceful and relieved in their native homelands. Outside the homelands, similarly, many people want to have their spiritual homelands, where they feel peaceful and relieved [17] [29] [30]-[33]. For example, many Japanese people feel relieved in Chiang Mai, an old capital in the northern part of Thailand, where old Buddhism temples are standing although Thai Buddhism is very different from Chinese, Korean and Japanese Buddhism. But, unlike the Catholic system, the Buddhists usually do not mind the difference between the sects within the Buddhism.

There are different sects in Buddhism, basically in south (India, Sri Lanka, Myanmar, Thailand, Laos, Cambodia, etc.), north (China, Vietnam, Korea, Japan) and Tibet-Bhutan-Mongol (often mistakenly called the Lamaism). But they have been very tolerant of each other. Unlike the Catholic (*katolikos* in Greek from *kata* + *holos* = whole, universe), there has been no centralized system to unify the Buddhism. This is not unusual. Rather, the universal Catholic Church system is exceptional even within the Christianity. In the Greek Orthodox Church (Eastern Orthodoxy), the Russian Orthodoxy, the Alexandrian, the Jerusalem, and others are quite autonomous. Armenian, Ethiopian, Persian and Chinese (*Jing-Jiao* from Nestorius) Christianity are also different each other. Therefore, the religious difference is not serious for many people except for believers of some religions.

### 2.5. Hospitality

One of the most decisive factors for the success is the hospitality of the healthcare service providers and the friendship of the local communities in the host areas. In the international healthcare services, these two factors are partly determined by the friendship between the host areas and the home countries of healthcare service users. The cultural similarities between them are desirable. This must be considered before the construction of the

facilities.

### 3. Postretirement Life

#### 3.1. Retirement

In many Japanese companies, people usually retire at age 55. Some people find new jobs but retire again after several years' works there. Many retirees move to countryside (e.g., homeland) for the reasons of healthy environment (clean air, etc.), cheaper living cost, tastes (fishing, painting, etc.) and others. Some other retirees live outside home countries to renew the lives [34]. Indeed, many Japanese retirees live in Southeast Asia to enjoy marine sports.

#### 3.2. Postretirement Activities

Retirees enjoy the postretirement life according to their taste or hobbies [35]. A popular site for long-staying Japanese retirees is Chiang Mai, Thailand. They voluntarily organize the Japanese Association there for their friendship. According to the Association, more than 3,000 Japanese (mainly retirees and the wives) live long in Chiang Mai with long-stay (10 years) visa. In addition, more Japanese without long-stay visa also live there. These Japanese like Chiang Mai for its merits of comfortable climate, historical legacy, landscape, people's friendliness, and world-famous healthy Thai food (vegetables, fruits, fish, chicken rather than beef with moderately salty taste by using the condiments of fish sauce called *nam pla* for flavor). Some elderlies like the Thai classic massage (*nuat phaen boran*), which is deeply related to the Buddhism and Indian *Ayurveda* therapies.

### 4. Cultural and Social Differences

#### 4.1. Cultural Tolerance

Thai culture is quite tolerant of other cultures. Thailand is a Buddhism country, and many Thai people regularly worship at the Buddhism temples. But they are tolerant of people of other religions or no religion.

The problem may be on the side of the healthcare-service users from abroad. Some users persist with their religions. They may demand their religious services on particular days (Sunday, Friday, Easter Day, Christmas Day, etc.) in particular styles (e.g., with hymns). It is difficult to satisfy such cultural or religious demands. As Buddhists usually do not stick to particular services of religion, they refrain from such demands and will cause few troubles.

#### 4.2. Language and Food Gaps

The differences in the language and food seriously obstruct the friendly communication. Believing that English is "THE" universal language and that everybody should speak English, English-speaking users might be frustrated with and might scold non-English speaking staff of the facilities. The Japanese and some other users may endure the language gaps but, at the same time, may be very frustrated with the poverty in the language communication. As few Japanese speak or read Thai language or characters, they may have some trouble in mixing with the local communities. Generally, Japanese do not speak foreign languages well because, as many linguists and brain scientists say, Japanese language is very different from the other languages. Instead, Japanese are accustomed to the language gap and can endure it.

The communication is not only through languages. To do something together (recreation, public service, etc.) or the collaboration of the foreign users with the local community are good ways for the communication. It may be requested to design such programs.

As some people implicitly or sometimes explicitly have the ranks in language (classically French and now English is the BEST language superior to the others), some people implicitly or sometimes explicitly have the ranks in food (classically French and now American food is superior to the others). Many Japanese people used to have the rank in food: Spicy food (e.g., in South and Southeast Asian and Korean) and salty food (e.g., in the northeast part of Japan) are inferior while the natural or light taste (typically Kyoto food) is elegant and graceful. But this rank is now reversed in Japan. Today many Japanese like or even prefer spicy food [36] and even salty food by ignoring the medical advices. The food gap between Southeast Asia and Japan is narrowing.

## 5. Need Analysis

### 5.1. Demand and Feasibility

Social or economic demands for healthcare facilities of long-stay type are strong in many countries. Now there are many aged people in many countries as compared to the relatively small numbers of young generations because of the baby boomers born in the postwar period (1946-1949). This imbalance between the aged and young generations causes the serious shortage of workforces in the healthcare sector. This situation demands the construction of healthcare facilities abroad with less generation imbalance. In some countries including Japan, the aged people are relatively rich because of their economic stock saved during the economic prosperity around the 1980s. Therefore, it is financially feasible for such aged people to go abroad for the long-stay in the healthcare service facilities abroad, particularly in developing areas with the availability of well-trained healthcare service workforce [24]. The use of the remote monitoring or diagnosis system mitigates the heavy burden of workforce, and the telecommunication from the system to home eases the anxieties of the families living in distant areas. This raises the demand.

If many retirees already live in some developing areas, they are surely expected to welcome the construction of such welfare facilities in these areas by their homecountry's government or business, because it mitigates the language and other cultural troubles. The construction of facilities is relatively inexpensive in developing areas. Some developing areas have already the well-developed education system and potentially have the candidates of healthcare workforce. This solves the most difficult obstacle of the availability of healthcare workforce in developed areas. The complementarity in population structure between developed (highly aged) and developing (less aged) areas leads to the mutual help. Experiencing healthcare facilities, developing areas learn useful lessons for their future aged society with the experienced healthcare workforce. In this way, the construction of the facility contributes to the resolution of conflict between developed and developing areas by utilizing the complementarities between them and is beneficial to both sides.

If the first setup meets some social obstacle to winning the local acceptance, government (the Embassy or the related agencies) of the healthcare-service provider areas can help the construction plan by talking to the central or local governments of the host area. Such a governmental interference in the construction of facilities by private sectors is often seen and socially acceptable in the construction of education, healthcare or research facilities even by private sectors. This is helpful in overcoming the obstacle.

As many retirees are still healthy, they are not "hospitalized" but live outside the facility like outpatients. For safety, they may carry wearable medical apparatus with them for remote monitoring. Such information can be sent to home doctors in the homeland by electronic systems. This improves the safety and raises the demand without incurring heavy cost [37].

### 5.2. Volunteer Activities with the Communities in the Host Areas

Except for diseased or highly aged people, the healthcare service users may be desired to join the recreational and other volunteer activities with the communities in the host areas [38]. This promotes the communications between the healthcare service users from distant areas and the local communities in the host areas [34].

In Thailand, there are a number of organizations that support Japanese long-stayers' activities. The Japan-based organizations include Long-Stay Foundation (Japan), which Thailand-Japan Long-Stay Promotion Association and, locally, Bangkok Salon. These two agencies have entities that provide information, advices, and cooperation related to the Japanese long-stay in Thailand. In Chiang Mai, apart from the Consulate-General of Japan in Chiang Mai and the Chiang Mai Japanese Association where Japanese can acquire information concerning long-stay at either the country- or provincial-level, there are several long-stay organizations as well. The largest group is the Chiang Mai Long-stay Life Club (CLL Club). They works as the center to contact with Thai government agencies and local entities to arrange activities such as volunteers, Thai-Japan festival, seminars on long-stay, sports or recreation activities (such as spa, golf, and traditional culture), as well as coordination with consular in giving advice to members.

### 5.3. Acceptability

People of some culture and other people of other culture (e.g., religion) are sometimes reluctant to live together as the history shows. But the Buddhism people tend to accept different culture. An Indian saint said that many



people talk different words with the same meaning. According to this Indian idea, seemingly different cultures can peacefully coexist and accept each other. In this respect, the Buddhism countries are appropriate to have international healthcare facilities. In fact, Thailand and Japan have already launched the cooperation programs for the aged societies.

Thai people in Chiang Mai relatively have the positive attitude toward Japanese due to their nature of politeness. Japanese spending there also creates jobs and transfers wealth to the host areas. Thai government aims at promoting high-valued services to generate income and create jobs in the country. The long-stay program is one of the target programs benefiting the tourism, healthcare service and real estate sectors [39].

The use of the remote monitoring or diagnosis system is welcome in the host areas because it stimulates and promotes the development of medical electronics technology in these areas.

#### 5.4. Return to Spiritual Homeland for Terminal

In many cultures, the end of life is important [11] [40]. In some countries like China and Japan, it has traditionally been extremely important to collect many people to the funeral service for the purpose to demonstrate the power of the family. In the family centric system in the feudalism era, the family was something like the political party, the business or the company. In many social, political or economic systems, the scale or the size of the nation, business and political party is important. When family was an extremely important unit in society, the scale of funeral service represented the power of the family. Similarly, having a large attendance at the funeral service is important to the family. This promotes retirees to have the postretirement life in homeland or spiritual homeland surrounded by the family and/or intimate friends.

In many cultures, the corpse is buried in earth (inhumation or interment burial) beside the water burial, tree burial, platform burial, corps exposure, and others in other cultures. For the sanitarness purpose, the corpse is burned (cremation) in some culture (typically in the Buddhism). The cremation system came with the Buddhism from India to Japan in the 700 s. At first, Japanese people regarded it cruel to burn out the corpse. *Shoku-Nihon-gi*, the third oldest history book authorized by the Emperor in the end of 700 s describes its social impact. Gradually, however, the inhumation or interment system was replaced with the cremation system for the sanitarness purpose. Today, the inhumation is not practiced in Japan. Japanese patients and the families prefer the cremation system and wish to perform the funeral service in the cremation system. As the cremation system is general in many Buddhism countries, the funeral system in the Buddhism countries is acceptable to the users and the families from the Buddhism countries, but may not be acceptable to non-Buddhists who feel the cremation as cruel.

After the cremation, the ash is important in the Buddhism. In fact, the ashes (*sarira* in India or *shari* in Japanese) of Buddha were delivered to several Buddhism temples and some came to Japan, where Horyu-ji temple outside Nara City and a few other temples still keep them. In Japanese words, “to bury the bones (or ashes) apart from homeland” means the tragic or lonely death apart from home. Another Japanese word “*nozarashi*” literally means “wind in the field” or “the corps unburied or abandoned in the field”, but usually means “the death apart from homeland”. Still today, Japanese government and some volunteer groups visit China, Southeast Asia and Oceania (New Guinea, Mariana, etc.) to collect the abandoned bones of the dead soldiers, to cremate the bones to ashes and to bring back the ashes to the families. In such culture, the family of Japanese diseased in the facilities may earnestly want to bring the ashes to the home countries to bury in the family tomb. For this, it is necessary that the family brings the ash into the cabin of transport (airplane) or sends it by “mail package”. The problem is whether this is legally or morally allowable in international contexts or not.

The funeral services were extremely important and remain important still today. In the funeral services, the Buddhism “priests” are invited to cite or chant one of the Buddhism scriptures. The Christianity has only one Bible, and the only selection is which part of the Bible to cite. The Buddhism allows the multiplicity of the “Bibles” or the scriptures. It depends on the sect which scriptures to choose. Most of Japanese people do not mind which sect manages the own funeral service or which scripture to be chanted in the funeral services. In other words, any manner of funeral service is acceptable to most of Buddhists. But the situation may be completely different as for other religion believers.

Islamic and some Christian people may feel the cremation is cruel. Some people may reject the Buddhism priests and the chant of Buddhism scriptures. For such cases, hospices are constructed only in places where particular types of religious services are available, meanwhile many Buddhists accept the local system of funerals. In this respect, the healthcare facilities in the Buddhism countries are acceptable to many Buddhism people.

## 6. Possible Locations

### 6.1. Chiang Mai, Thailand

Chiang Mai, 697 km north of Bangkok, has already attracts many Japanese retirees. Chiang Mai is at the heart of northern heritage, having ancient seven hundred years history as a capital city in the North. It is rich in both natural and cultural treasures, having very distinctive culture, traditions, arts, festivals, ethnic communities, along with beautiful mountains and waterfalls.

Chiang Mai is the second largest province of Thailand in area (after Nakhon Ratchasima), while ranked fifth in population (after Bangkok, Nakhon Ratchasima, Ubon Ratchathani, and Khon Kaen). Meanwhile, it is ranked fifteenth in gross provincial product, amounting to THB184,132 million in 2013. Nonetheless, its per capita income of THB106,707 remains lower than the country average (THB193,394), which are calculated from National Economic and Social Development Board's data.

Chiang Mai is suitable to the long-stay of retirees, particularly Japanese retirees. In fact, many Japanese retirees already live there. Among them, over 3,000 are the long-stayers (10 years visa holders, awarded only to wealthy people with a certain amount of fixed time deposits with Thai banks). Among the entire city population (1,683,020 as of July, 2015), Japanese long-stayers account for about the 0.2%. Including the Japanese short-stayers (1000 - 2000), the Japanese population probably accounts for the 0.3% of the entire population of Chiang Mai City. The climate is comfortable to many Japanese. Chiang Mai is a cultural city with Chiang Mai University with a well-equipped medical school. This contributes to maintaining the healthcare service quality. Being rich in artistic sites like Buddhism temples, Chiang Mai mentally heals people, particularly the aged Buddhists [41].

In 2015, Japanese and Thai Governments have signed the memorandum of cooperation (MOC) on Thailand-Japan joint rail development. The first project is the development of high-speed train linking Bangkok and Chiang Mai. The rail transportation link will reinforce the attractiveness of Chiang Mai as a center of Northern Thailand.

In terms of medical services with high standard of medical professionals, hospitals and medical facilities, Thailand has become one of the world's largest medical tourism sites, serving more than 2.5 million international patients in 2014. Chiang Mai is the medical hub in the Northern region of Thailand, where several hospitals are in operation, both country's top-level medical chain and local private hospitals, with expanding facilities to serve long-stay foreigners and patients from neighbor countries in ASEAN.

### 6.2. Other Candidates

Japanese retirees have already settled down in several cities or islands abroad. The mutual friendliness in culture including religions and food, the availability of traditional medicines for elderlies at folk levels, and the possible support from medical colleges with modern equipment may be the criterion of choice.

## 7. Concluding Remarks

### 7.1. Conclusion

The aged society today demands the healthcare service systems for elderlies, while healthcare workforce is undersupply. Moreover, the gap between developed and developing areas or countries is still unfilled or even enlarged in economic, medical, educational and other respects. International medical aids are sometimes obstructed because of the low motivation of donor countries. International medical tourism at individual levels fills the gap but only partly. This paper proposed a new healthcare service system to construct medical and healthcare facilities in developing areas both for elderlies of developing areas and those from developed areas. This may be regarded as a third-sector business model between the medical aid of donor countries to developing areas and the medical tourism of patients from outside.

Using a set of conceptual analysis methods like the need analysis, the obstacle analysis and others, the analyses found the strong demands on the both sides, the economic feasibility or the marketability also on the both sides, and the locals' acceptability. Finally, Chiang Mai, a northern city of Thailand, was identified as a model of the candidate cities on the several criteria: The mutual friendliness in culture including religions and food; the availability of well-trained healthcare workforce and traditional medicines for elderlies at folk levels; and the



possible support from medical colleges. Its suitability was analyzed and evaluated on these criteria. Chiang Mai was evaluated as suitable for the construction of healthcare facility.

## 7.2. Remaining Problems

This paper identified Chiang Mai, Thailand as a hopeful candidate city for healthcare facility on some conceptual criteria by using simple statistics. A more carefully designed case-study using the interview or questionnaire methods with statistical analyses may be requested for more precisely assessing its suitability.

This paper used a set of selection criteria of hopeful candidates cities. It is needed to identify other candidate cities by applying the criteria. As a feedback, such an application may play the role of useful test of the soundness of the criteria. The criteria may be requested to be more socio-psychologically founded by using some socio-psychological theories and analysis methods.

## Acknowledgements

The authors thank Mr. Shigeru Suzuki for his useful comment on the earliest version of this paper.

## References

- [1] Olsen, J.A. (2009) Principles in Health Economics and Policy: Distributing Health Care. Oxford University Press, Oxford. <http://dx.doi.org/10.1093/acprof:oso/9780199237814.001.0001>
- [2] Zweifel, P. and Breyer, F. (1997) Health Economics. Oxford University Press, Oxford.
- [3] Beckford, J.A. (2015) Migration and Religion. Edward Elgar, Cheltenham.
- [4] Widdows, H. and Marway, H. (2015) A Global Public Goods Approach to the Health of Migrants. *Public Health Ethics*, **8**, 121-129. <http://dx.doi.org/10.1093/phe/phv013>
- [5] Higgs, P. and Gilleard, C. (2015) Rethinking Old Age: Theorising the Fourth Age. Palgrave Macmillan, London.
- [6] Galla, F. and Legros, D. (2004) Complementarities between Obstacles to Innovation: Evidence from France. *Research Policy*, **33**, 1185-1199. <http://dx.doi.org/10.1016/j.respol.2004.06.004>
- [7] Eto, H. (2005) Obstacles to Emergence of High/New Technology Parks, Ventures and Clusters in Japan. *Technological Forecasting and Social Change*, **72**, 359-373. <http://dx.doi.org/10.1016/j.techfore.2004.08.008>
- [8] Grieves, J., McMillan, J. and Wilding, Ph. (2006) Barriers to Learning: Conflicts That Occur between and within Organizational Systems. *International Journal of Learning and Intellectual Capital*, **3**, 86-103. <http://dx.doi.org/10.1504/IJLIC.2006.009212>
- [9] Arantes-Oliveira, N. (2007) A Case Study on Obstacles to the Growth of Biotechnology. *Technological Forecasting and Social Change*, **74**, 61-74. <http://dx.doi.org/10.1016/j.techfore.2006.03.003>
- [10] Ayalon, L. and Green, O. (2015) International Homecare, Live-In versus Live-Out Home Care in Israel: Satisfaction with Services and Caregivers' Outcomes. *Gerontologists*, **55**, 628-642. <http://dx.doi.org/10.1093/geront/gnt122>
- [11] Broom, A. (2015) Dying: A Social Perspective on the End of Life. Ashgate, Surrey.
- [12] Blaise, S. (2009) Japanese Aid as a Prerequisite for FDI: The Case of Southeast Asian Countries. ASIA Pacific Economic Papers, No. 385.
- [13] Banerjee, S., Sankar, N., Dey, N. and Eto, H. (2015) Global Medical Tourism: A Review. In: Eto, H., Ed., *New Business Opportunities in the Growing E-Tourism Industry*, Chap. 7, IGI Global, Hershey, 114-131. <http://dx.doi.org/10.4018/978-1-4666-8577-2.ch007>
- [14] Datta, H.S., Mitra, S.K., Paramesh, R. and Patwardhan, B. (2011) Theories and Management of Aging: Modern and Ayurveda Perspectives. *Evidence-Based Complementary and Alternative Medicine*, **2011**, Article ID: 528527. <http://dx.doi.org/10.1093/ecam/nep005>
- [15] Erichsen, N.-B. and Buessing, A. (2013) Spiritual Needs of Elderly Living in Residential/Nursing Homes. *Evidence-Based Complementary and Alternative Medicine*, **2013**, Article ID: 913247. <http://dx.doi.org/10.1155/2013/913247>
- [16] Eto, H. (2015) From Amusement and Entertainment Tourism to Balneotherapy and Health Promotion Tourism: With the Aid of Medical Electronics and Communication Networks in Hot Spring Sites. In: Eto, H., Ed., *New Business Opportunities in the Growing E-Tourism Industry*, Chap. 11, IGI Global, Hershey, 220-229. <http://dx.doi.org/10.4018/978-1-4666-8577-2.ch011>
- [17] Carr, D. (2011) Racial Differences in End-of-Life Planning: Why Don't Blacks and Latinos Prepare for the Inevitable?

- Omega—Journal of Death & Dying*, **63**, 1-20. <http://dx.doi.org/10.2190/OM.63.1.a>
- [18] Liu, I.-C. and Chen, C.-C. (2015) Empirical Analysis on the Medical Tourism Policy in Taiwan. In: Eto, H., Ed., *New Business Opportunities in the Growing E-Tourism Industry*, Chap. 8, IGI Global, Hershey, 132-148. <http://dx.doi.org/10.4018/978-1-4666-8577-2.ch008>
  - [19] Banerjee, S., Nath, S.S., Dey, N. and Eto, H. (2015) Global Medical Tourism: A Review. In: Eto, H., Ed., *New Business Opportunities in the Growing E-Tourism Industry*, Chap. 7, IGI Global, Hershey, 114-131. <http://dx.doi.org/10.4018/978-1-4666-8577-2.ch007>
  - [20] Eto, H. (2015) Preface. In: Eto, H., Ed., *New Business Opportunities in the Growing E-Tourism Industry*, IGI Global, Hershey.
  - [21] Sian, L.T., Subramonian, H., Tung, L., San, W.H., Hui, K.H.K. and Kulampalil, T.T. (2009) TQOUI: Fundamentals of Hospitality and Tourism Management. Open University Malaysia, Malaysia.
  - [22] Castle, N.G. and Ferguson-Rome, J.C. (2015) Influencing of Nurse Absenteeism on Nursing Home Quality. *Gerontologist*, **55**, 605-615. <http://dx.doi.org/10.1093/geront/gnt167>
  - [23] Harrison, R., Cohen, W.S. and Walton, M. (2015) Patient Safety and Quality of Care in Developing Countries in Southeast Asia: A Systematic Literature Review. *International Journal for Quality in Health Care*, **27**, 240-254. <http://dx.doi.org/10.1093/intqhc/mzv041>
  - [24] Syed-Abdul, S., Iqbal, U. and Li, Y.-C. (2015) Healthcare Quality and Safety in Developing Countries. *International Journal for Quality in Health Care*, **27**, 239. <http://dx.doi.org/10.1093/intqhc/mzv047>
  - [25] Mosley, P. (2015) International Aid: Global Institutions. Routledge, London.
  - [26] JICA (2014) Japan International Cooperation Agency Annual Report. JICA, Tokyo.
  - [27] Katono, Y. (2014) Thailand-Japan Exchange and Cooperation in Regard to Care and Medical Treatment of the Aged. *Longstay Committee of Japan-Thailand Business Forum (JTBF)*. [http://www.jtbf.info/care\\_of\\_aged.html](http://www.jtbf.info/care_of_aged.html)
  - [28] Irigaki, H. (2014) JICA's Cooperation to ASEAN and Thailand: Its Achievement and Challenges. *Presented at Japan's ODA—60th Anniversary Seminar*, 24 November 2014.
  - [29] Erichsen, N.B. and Buessing, A. (2013) Spiritual Needs of Elderly Living in Residential/Nursing Homes. *Evidence-Based Complementary and Alternative Medicine*, **2013**, Article ID: 913247. <http://dx.doi.org/10.1155/2013/913247>
  - [30] Johnson, K.S., Kuchibhatla, M. and Tursky, J.A. (2008) What Explains Racial Differences in the Use of Advance Directives and Attitudes toward Hospice Care? *Journal of the American Geriatrics Society*, **56**, 1953-1958. <http://dx.doi.org/10.1111/j.1532-5415.2008.01919.x>
  - [31] Kwak, J. and Haley, W.E. (2005) Current Research Findings on End-of-Life Decision Making among Racially or Ethnically Diverse Groups. *The Gerontologist*, **45**, 634-641. <http://dx.doi.org/10.1093/geront/45.5.634>
  - [32] Mitchell, C.B. and Whitehead, M.K. (1993) A Time to Live, a Time to Die: Advance Directives and Living Wills. *Ethics & Medicine*, **9**, 2-5.
  - [33] Yan, Z. (2011) Patient Satisfaction in Two Chinese Provinces; Rural and Urban Differences. *International Journal for Quality in Health Care*, **23**, 384-389. <http://dx.doi.org/10.1093/intqhc/mzr034>
  - [34] Cook, S.L. (2015) Redirection: An Expansion of Career during Retirement. *Gerontologists*, **55**, 360-373. <http://dx.doi.org/10.1093/geront/gnt105>
  - [35] Gonzales, E., Matz-Costa, C. and Morrow-Howell, N. (2015) Increasing Opportunities for the Productive Engagement of Older Adults: A Response to Population Aging. *Gerontologist*, **55**, 252-261. <http://dx.doi.org/10.1093/geront/gnu176>
  - [36] Jolliffe, L. (2014) Spices and Tourism: Destinations, Attractions and Cuisines, Tourism and Cultural Change. Channel View Books, Bristol.
  - [37] Zhou, J. and Salvendy, G. (Eds.) (2015) Human Aspects of IT for the Aged Population. Design for Aging. *Proceedings of the 1st International Conference, ITAP 2015*, Los Angeles, 2-7 August 2015.
  - [38] Greenfield, E.A., Oberlink, M., Scharlach, A.E., Neal, M.B. and Stafford, P.B. (2015) Age-Friendly Community Initiatives: Conceptual Issues and Key Questions. *Gerontologist*, **55**, 191-198. <http://dx.doi.org/10.1093/geront/gnv005>
  - [39] The Tourism Authority of Thailand: TAT (2014) Longstay Market Strategies: More Understanding of Culture and Way of Life of Target Customers. *TAT Review Magazine*, **3**, 12-19. (In Thai)
  - [40] Parkes, C.M., Laungani, P. and Young, W. (Eds.) (2015) Death and Bereavement across Cultures. Routledge, London.
  - [41] Barash, D.P. (2014) Buddhist Biology: Ancient Eastern Wisdom Meets Modern Western Science. Oxford University Press, Oxford.