

# IMPACT OF MEDICAL TOURISM: A SYSTEMATIC REVIEW

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## ABSTRACT

**Background:** In this era of globalized medicine, online health information is readily accessible to international travel. Medical tourism has captured the interest of the media. Articles, guidebooks, and broadcasts on medical tourism are being published and produced with increasing frequency. Individual motivations for engaging in medical tourism vary widely and may include imperatives such as avoiding waiting time, improving quality, and accessing treatment not available in the home jurisdiction. This study aimed to review systematically the impact of medical tourism.

**Subjects and Method:** A systematic review was conducted by searching published articles from 2010 to 2019 from databases including ProQuest, Scopus, PubMed, and EBSCOhost. The keyword for this review was “Southeast Asia” AND “medical tourism” OR “health tourism” AND “impact” OR “effect” OR “outcome”. The inclusion criteria were English and open access. After review process 6 articles were included in this review.

**Results:** An article reported the impact of medical tourism on communication approach. Three articles reported the impact on economic growth. Two articles reported the impact on the health system. Three articles reported the impact on hospital management.

**Conclusion:** The increase in medical tourism has an impact on several aspects such as communication approach, economic growth, health system, and hospital management.

**Keywords:** medical, tourism, medical tourism

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## BACKGROUND

Medical tourism is a rapidly developing phenomenon throughout the world, including Asia. Medical tourism has become a trend among upper middle class people who seek treatment outside their own country, although previously it was only limited to the elite from developing countries to developed countries, when health care was inadequate or unavailable in his own country. People are looking for quality medical care at competitive prices, especially for countries that have the popularity of medical tourism such as Thailand, Singapore, India and Malaysia.

Initially the purpose of medical tourism was to get health services from developing countries to developed countries, especially for high-tech facilities and technology, but now medical tourism medical services are

changing to developing countries. The Medical News (2009) reports that Thailand is the most popular medical center in Asia with around 1.2 million medical tourists (James, 2011). Therefore policymakers are competing to promote medical tourism where the government actually plays a marketing and promotional role in the medical tourism industry.

Medical tourism contributes to increasing economic growth and increasing investment, especially health infrastructure and employment opportunities. But on the other hand, medical tourism has an impact on health services, rising prices for health care services, gaps in access to health services for local communities and the availability of doctors. Therefore, it is hoped that this article can help policy makers to pay attention to

existing problems and be able to make policies in the management of medical tourism.

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## SUBJECTS AND METHOD

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### 1. Study Design

The protocol for systematic review refers to the 2015 PRISMA-P (Preferred Reporting Items for Systematic review and Meta-Analysis Protocols) from four databases (ProQuest, Scopus, PubMed, and EBSCOhost). The search was conducted using the keywords "Southeast Asia" AND "medical tourism" OR "health tourism" AND "impact" OR "effect" OR "outcome". All selected articles were published between 2010 and 2019, using complete and limited articles for English-language publications by summarizing the impact of medical tourism.

### 2. Criteria for Inclusion and Exclusion

The articles assessed for eligibility in this review are articles that show the impact of medical tourism in Southeast Asia. The inclusion criteria are medical tourism, full articles and published between 2010 - 2019. Articles released from this review are articles that do not fit the criteria: outside Southeast Asia and articles that are not easily accessible.

### 3. Article Extraction

Articles found were then extracted using the PRISMA-P protocol depicted in Figure 1.

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## RESULTS

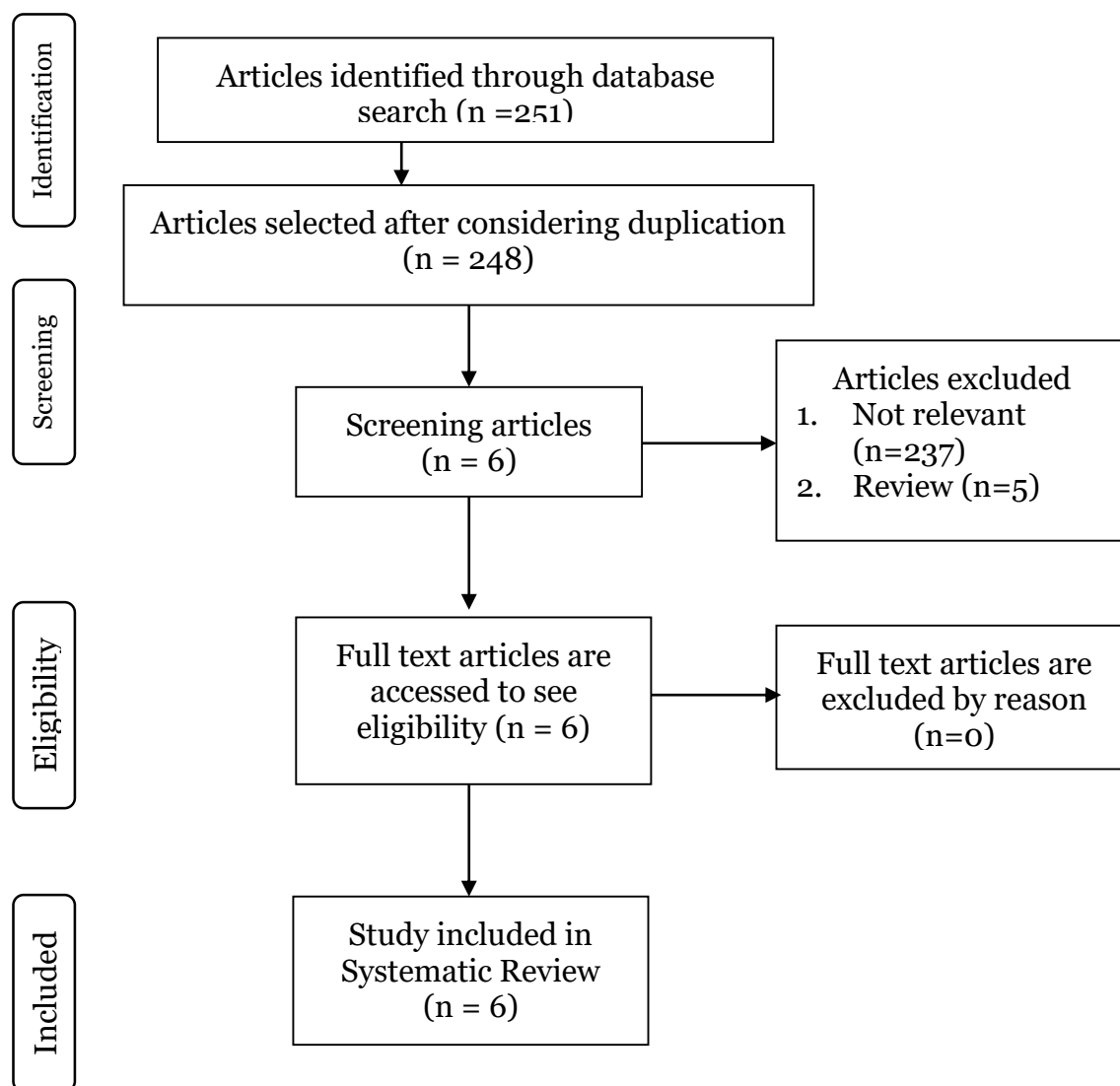
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In a study conducted in Thailand, 4 articles were found that have an impact on medical tourism. Ngamvichaikit and Beise-Zee (2014)

conducted in-depth interviews and observations with 27 informants with the aim of getting the concept of information and communication needs in medical tourism. The results showed the need for multilevel information provision at various levels of health care providers, especially in the form of informative communication models so as to facilitate effective interaction and information for patients.

Research conducted by NaRanong and NaRanong (2011), used a qualitative research design through group discussions and in-depth interviews with hospital managers and informants from the public and private sectors and used survey data conducted at two private hospitals. From the research it was found that medical tourism produces 0.4% of Thailand's gross dosage products, the lack of availability of medical personnel and the occurrence of increased costs in private hospitals which of course will further have an impact on costs in public hospitals and Thailand's universal health insurance.

The Noree et al. (2016) study was conducted using a cross-sectional method by surveying 293 medical tourists and interviewing 15 hospital executives and 28 service providers from private hospitals in Thailand. The results showed 911,913 visit records with an estimated 167,000 medical tourists in 2010, of which 64.8% were from the eastern Mediterranean region and medical tourism had an impact on Thailand's economy and health system.



**Figure 1. PRISMA Results of the Search Protocol**

Ames's research (2011) aims to understand the perceptions and experiences gained from 7 Vice Presidents of international private hospitals in Bangkok using a qualitative research design. From this research it was found that hospital management has set a view of the impact experienced by medical tourism policies and practices so as to assist hospitals in understanding the quality of health services and the need for the development of the latest medical technology.

Tang (2015) conducted a study in Malaysia to see the impact of medical tourism on

Malaysian economic growth using a theoretical growth model proposed by Tang and Tan (2015).

From this research, it was found that the response of economic growth in medical tourism is higher when compared to capital and exports of goods, from the analysis of general variance decomposition analysis found that medical tourism is an important factor in explaining the variation of short and long-term economic growth in Malaysia and from the Granger causality found that medical tourism causes economic growth.

Table 1. Selected publication articles through the PRISMA method

No	Title	Author, year	Location	Study Design	Variable
1	The Impact Of Medical Tourism on Thai Private Hospital Management: Informing Hospital Policy	Dr Paul TJ James, 2011	Thailand	Qualitative	Hospital management
2	Medical Tourism In Thailand: a Cross-Sectional Study	Thinakorn Noree, Johanna Hanefeld & Richard Smith, 2016	Thailand	Cross sectional	Economy, health system
3	The Effects Of Medical Tourism: Thailand's Experience	Anchana NaRanong, Viroj NaRanong, 2011.	Thailand	Qualitative	Economy, Health system, Hospital management
4	Communication Needs of Medical Tourists: an Exploratory Study in Thailand	Anothai Ngamvichaikit, Rian Beise-Zee, 2014	Thailand	Qualitative	Communication
5	Medical Tourism and Its Implication on Malaysia's Economic Growth	Chor Foon Tang, 2015	Malaysia	Theoretical growth model proposed	The economy
6	Malaysian Islamic Medical Tourism Market: A SWOT Analysis	Suhana Mohezar, Sedigheh Moghavvemi, Suhaiza Zailani, 2017	Malaysia	Qualitative	Hospital management

Mohezar et al. (2017) conducted a qualitative study through semi-structured interviews with managers of Islamic hospitals aimed at getting an overview of the prospects and internal and external factors of Islamic medical tourism in Malaysia. Research

conducted at 12 hospitals shows that there are still a limited number of internationally accredited hospitals, limited medical services due to lack of resources, qualified facilities, limited capital and lack of human capital,

especially medical personnel who integrate with Islamic concepts and values.

Based on the six articles that have been reviewed, the impact of medical tourism is obtained into several aspects, including:

1. Impact on the communication approach  
Medical tourism requires a more autonomous decision making process where special approaches to communication and counseling are needed. Sharing information is the key to successful communication so that it will affect the satisfaction and quality of medical tourism.

2. Impact on economic growth  
Medical tourism has accelerated short-term economic growth by 25.5% and long-term by 38% in Malaysia. Medical tourists in Thailand are reported to have contributed to the domestic economy in terms of non-medical expenses for themselves and their partners so as to produce an added value of 0.4% Gross Domestic Product (GDP).

3. Impact on the health system  
The increase in the number of medical tourists in Thailand has caused the price of health care services to rise, making it a heavy burden on the health system, especially for universal health coverage. This is evidenced by the lack and uneven distribution of medical personnel and increasing medical costs so that access to quality medical services for the Thai people themselves is also increasingly weakened.

4. Impact on hospital management  
Service management in hospitals contributes to forming relationships with medical tourists as well as providing hospital services. Factors in hospital management that can affect medical tourism include employees, especially the availability of trained medical staff, the latest hospital technology, hospital accreditation, communication as a marketing tool and strategy in dealing with patients, and finances where there is no certainty of

guarantee of financial conditions medical traveller.

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## DISCUSSION

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In increasing the satisfaction and quality of medical tourism, it is necessary to identify the characteristics and communication needs differently when compared to other patients. Medical tourism patients tend to already know the disease they are suffering from and will compare the medical care they will receive, then these patients will identify medical services at the hospital by comparing the reputation, facilities, excellence and quality of the hospital. After patients consult with medical personnel, medical tourism patients will get more control over the care they will receive.

Another thing to note is that the patient feels uncertainty due to cultural and socio-economic systems that are different from his country. Therefore high attention is needed, clear and accurate information during health care so that sharing information is the key to successful communication where ultimately patients can make autonomous decisions. But on the other hand, we can still find doctors who can dominate decision making by making firm recommendations. Therefore we need an integrated model between doctors and patients by providing clear, well-organized and trustworthy information to increase patient satisfaction in medical tourism.

In terms of economic growth, medical tourism can be a trigger for a country's economic growth. This is happening in Malaysia, where medical tourism is now an important factor, not only as part of the short term but also in the variation of long-term economic growth. In turn, this can accelerate Malaysia in the economic ranking process to improve its status to become a developed country. Meanwhile, in Thailand, medical tourism is

helping to increase revenue in the business and related tourism sector.

The impact on the health system is seen in part by the financing of health services and consumerism driven by the government and the private sector trying to shift responsibility for individual health in response to rising health care costs and increased demand for medical tourism services. One of the policy implications of increasing medical tourists on health financing is that different pricing for medical tourism patients can increase service costs for local consumers over time and undermine people's access to quality local health services.

Labour in the private versus public sector, where private hospital providers continue to grow and tend to be located in cities or urban areas, spurred demand from the rich to provide health services in the private sector. The perceived provision of the public sector with lower quality services and tends to be unable to pay also makes an increase in demand for services to private hospitals.

The impact of medical tourism on other health systems is the uneven distribution of medical personnel. The availability of specialist medical staff can be scarce in some hospitals because human resources can move to other hospitals to get a better working environment and better income.

As a result, this will only worsen the distribution of human resources between the public and private sectors. To retain specialist doctors, private hospitals also win more points by providing higher salaries and benefits compared to lower workloads. The lack of availability of doctors in Thailand and Malaysia, requires the government to find the best solution. Thailand compensates for the increase in salaries for doctors, dentists, nurses and pharmacists and provides additional budgets for public hospitals so that health services in the public sector are maintained.

Finally, the government needs to separate the fields of trade and health in medical tourism so that every aspect of work related to the policy will have a different purpose. This is indicated where universal access to health services tends to be the second priority of the policy objectives in the trade sector where the Ministry of trade and tourism has more to do with increasing economic growth and facilitating international trade in the service sector. Instead, the Ministry of Health's goal is to improve the overall health of the population and ensure equality in access to and delivery of health services.

The impact of medical tourism on hospital management is to contribute to the formation of relationships with medical tourists and the provision of hospital services. In medical tourism, new hospital technology has become one of the important reasons why patients come for treatment, which will result in an increase in the cost of soaring health services.

Not only that, it is to keep patients coming and choosing medical tourism treatment, the quality of the hospital also needs to be improved. One of the many things that hospitals can provide is JCI accreditation. This will ensure that patients get guaranteed care and quality services in a hospital. However, the difference between national and international accreditation can cause quality imbalances between public and private hospitals in one country.

Another important thing to note about hospital management and services is the patient himself. Patient safety, priority services, and patient complaints need to be addressed as quickly as possible from hospital staff. Therefore, a number of private hospitals have a management structure, facilities, personnel, and marketing acumen to adapt to the changing demands of medical tourism. In Thailand, hospital management

needs to transform not only in the field of organization but also in staff development, especially through developing hospital service ethics. Language training is one of the special trainings because there is still a need to improve language skills for medical staff, health workers and related staff. Besides functioning as a marketing communication tool, language becomes an important problem in completing not only work in medical care, but also in relation to answering patient questions and calming patients' families with language barriers to a minimum.

If seen based on medical tourism opportunities in Indonesia, the potential for developing medical tourism is quite large. This is in line with the Minister of Health Regulation No. 76 of 2015 concerning Medical Tourism Services and there are 31 internationally accredited hospitals by the Joint Commission International in Indonesia that can be a capital in medical tourism. However, the implementation of medical tourism is still hampered by several factors such as the lack of trust in the quality of health services in Indonesia, cross-ministerial cooperation that has not been running optimally and has not yet supported the tourism network. If the government is committed to supporting the realization of the implementation of medical tourism, surely medical tourism can be one of the promising sectors.

The increase in medical tourism has an impact on several aspects such as communication approaches, economic growth, health systems, and hospital management. This requires government policy support for the health system such as monitoring the

accessibility and distribution of equality in health care services for the community, improving the quality of health services and the hospital's need for international accreditation, qualified hospital facilities and developing the latest medical technology.

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