



**Standing Committee  
for Economic and Commercial Cooperation  
of the Organization of Islamic Cooperation (COMCEC)**

## **Developing Medical Tourism in the OIC Member Countries**



**COMCEC COORDINATION OFFICE  
September 2020**





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## List of Abbreviations

|       |  |
|-------|--|
| ABMS  | American Board of Medical Specialties                    |
| ACGME | Accreditation Council for Graduate Medical Education     |
| ADR   | Azerbaijan Democratic Republic                           |
| ATB   | Azerbaijan Tourism Board                                 |
| AYUSH | Ministry of Ayurveda, Yoga, Unani, Siddha and Homeopathy |
| CAGR  | Compounded Annual Growth Rate                            |
| CDC   | Centers for Disease Control and Prevention               |
| CHC   | Community Health Centers                                 |
| EHS   | Electronic Health Solutions                              |
| EPF   | Employees Provident Funds                                |
| ESI   | Employees' State Insurance                               |
| EU    | European Union   |
| FDA   | Food and Drug Administration                             |
| FTC   | Federal Trade Commission                                 |
| FY    | Fiscal Year  |
| GCC   | Gulf Cooperation Council                                 |
| GDP   | Gross Domestic Product                                   |
| GHA   | Global Healthcare Accreditation                          |
| GMC   | General Medical Council                                  |
| GP    | General Practitioner                                     |
| GSS   | General Social Security                                  |
| HCAC  | Health Care Accreditation Council                        |
| HHC   | High Health Council                                      |
| HHS   | Health and Human Services                                |
| HSEU  | Health System Evaluation Unit                            |
| HTP   | Healthcare Traveller Programme                           |

|         |   |
|---------|---|
| IARC    | International Agency for Research on Cancer                   |
| ICMR    | Indian Council of Medical Research                            |
| IMR     | Institute for Medical Research                                |
| IMTJ    | International Medical Tourism Journal                         |
| IQWiG   | Institute for Quality and Efficiency in Health Care           |
| IT      | Information Technology  |
| ITC     | International Trade Center                                    |
| IVF     | In-vitro Fertilization  |
| JCAHO   | Joint Commission on Accreditation of Healthcare Organizations |
| JCI     | Joint Commission International                                |
| LAMEA   | Latin America-Middle East-Africa countries                    |
| MATRADE | Malaysia External Trade Development Association               |
| MATTA   | Association of Tour and Travel Agents                         |
| MBBS    | Bachelor of Medicine and Bachelor of Surgery                  |
| MHTC    | Malaysia Healthcare Travel Council                            |
| MIS     | Management Information System                                 |
| MOC     | Maintenance of Certification                                  |
| MOH     | Ministry of Health  |
| MOT     | Ministry of Tourism   |
| MOTAC   | Ministry of Tourism and Culture                               |
| MSA     | Metropolitan Statistical Area                                 |
| MSQH    | Malaysian Society for Quality in Health                       |
| MTA     | Medical Tourism Association                                   |
| MTI     | Medical Tourism Index   |
| NDR     | National Drug Regulatory                                      |

|         |   |
|---------|---|
| NEET    | National Eligibility Cum Entrance Test  |
| NGOs    | Non-Governmental Organizations  |
| NHS     | National Health Service   |
| OECD    | Organization for Economic Co-operation and Development                              |
| OIC     | Organization of Islamic Cooperation   |
| OICSTAT | Organization of Islamic Cooperation Statistics Database                             |
| OPP     | Out-Of-Pocket   |
| PCC     | Patient Center Care   |
| PHA     | Private Hospitals Association   |
| PHC     | Primary Health Centre   |
| PHI     | Private Health Insurance  |
| PPP     | Public-Private Partnership  |
| PPP     | Purchasing Power Parity   |
| R&D     | Research and Development  |
| RMS     | Royal Medical Services  |
| SAO     | Surgical, Anesthetic and Obstetric  |
| SESRIC  | Statistical, Economic and Social Research and Training Center for Islamic Countries |

|        |   |
|--------|---|
| SETP   | Socio-Economic Transformation Program   |
| SHC    | Soil Health Card                        |
| SHI    | Statutory Health Insurance              |
| SOCSSO | The Social Security Organization        |
| SSI    | Social Security Institution             |
| TC     | Tourism Centre                          |
| THY    | Turkish Airlines                        |
| TURSAB | Turkey Travel Agencies Association      |
| UAE    | United Arab Emirates                    |
| UHAB   | International Patient Unit              |
| UHDB   | International Patient Support Units     |
| UK     | United Kingdom                          |
| US     | United States                           |
| USA    | United States of America                |
| USAID  | US Agency for International Development |
| USD    | United States Dollar                    |
| USHAŞ  | International Health Services Inc.      |
| WHO    | World Health Organization               |

## Executive Summary

Due to factors such as aging population, increase in international mobility and easier accessibility to information channels; medical tourism market has been growing at a lucrative pace which is entailed with increasing government efforts toward the development of the sector. While some countries are already an attraction hub in specific treatments as regards their technical capacity and infrastructure, the others are wishing to become more visible players at global level are developing new strategies.

This study aims to deep dive on the characteristics of best practice countries by analyzing their strategies and models on healthcare provision, infrastructure, financing, marketing as well as legislative arrangements regarding medical tourism. As a result of this comparative approach, policy recommendations for OIC countries were constituted for boosting medical tourism and increasing regional collaboration among OIC member countries.

## **Medical Tourism Outlook**

Health tourism is a concept which roots back to the first civilizations in history. People have tended to seek effective remedies for their health problems. Therefore, since the early ages, people have been moving from their homeland to other lands where they believe there is a better medication or treatment available. Health tourism is an ensemble of all sorts of health-related tourism activities formed by subcategories differentiated through the nature of treatment. There are 4 main types of health tourism: medical tourism, traditional medicine tourism, elderly care tourism and disabled tourism.

Motivation behind the decision of the medical tourists to get treatment outside of their home country or to choose a specific country to receive healthcare services is established upon push and pull factors. Push factors constitute the ground for the individual to get treatment in another country besides one's home country while pull factors affect the destination selection process. Most cited push factors in the literature can be identified as high cost, waiting times and limited insurance while most important pull factors are better service quality, lower medical costs and access to treatments that are not available in the home country.

Medical tourism has become a growing industry that at the same time generates benefits and risks for both the source and the destination country. From the destination country's point of view; increasing income, employment, spillover effect and reputation are some benefits of medical tourism while it also supports the source country in effective usage of the existing healthcare capacity. From the patients' point of view, medical tourism has benefits like cost effectiveness, reducing waiting times and getting high quality treatments. On the other hand, risks of medical tourism may include travel related complications, quality concerns and language barrier related problems.

The most prominent medical tourism products and services can be associated with medically driven trends, cosmetically driven trends, and the combination of medically and cosmetically driven trends. For example, some operations may be an obligation due to health conditions while some others may be requested because of solely cosmetic concerns. Also, in some cases medical needs may combine with cosmetic procedures such as dental treatments or plastic surgeries.

## **Comparative Analysis**

To examine supply and demand potential of the both OIC and non-OIC countries, a detailed analysis was conducted on quantitative indicators such as market size, growth of treatment types, health infrastructure capacity, health expenditure and inbound/outbound patient flow.

In non-OIC regional comparison, North America comes to forefront in medical tourism as the leader of the market, however, Asia-Pacific and LAMEA regions emerge as the closest competitors. North America has the highest health expenditure value as well as an improved health infrastructure. Europe follows North America in health expenditure with its high quality of services and developed healthcare infrastructure.<sup>1</sup> Despite its small share in the medical tourism market and the number of international tourists, Europe has one of the best healthcare infrastructure. Europe is a prominent destination for medical tourists for many treatments as a result of its high levels of expertise, experienced medical personnel and advanced equipment.

Asia-Pacific is another prominent region in the medical tourism market with its high capacity, world-renowned medical personnel and service quality. LAMEA is the rising star of the medical

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<sup>1</sup> PwC Analysis, Allied Market Research

tourism market with its lucrative market growth regarding market size and international patient arrivals.<sup>2</sup>

The degree of heterogeneity in the macroeconomic and development profiles of OIC member countries indicate their divergent performance in terms of healthcare capacity. Arab and Asian Group comes to forefront among OIC countries in terms of health infrastructure with their high government contribution to health sector while African region lags behind in healthcare capacity, medical personnel and health expenditures.<sup>3</sup>

Among OIC countries, the Arab group – especially Egypt, Oman, Maldives, State of Palestine and Libya – have high travel related import values that are above both OIC and world averages.<sup>4</sup> High health related import values followed by high share in personnel travel which is used to identify demand countries for medical tourism market, indicate that these countries might be dependent on outsourcing the healthcare needs of the citizens via medical tourism.

## **Comparison Framework**

In order to reveal a comprehensive view of the medical tourism sector, the capabilities of countries to provide health services are analyzed in a 5-dimension framework that consists of infrastructure and service provision models, financing mechanisms, marketing strategies, management and organization structures and legislative structure.

Considering the fact that not all countries have a well-functioning healthcare provision system, the medical tourism does not take place everywhere. Countries with capabilities as regards healthcare provision and medical services allocate some of their resources for medical tourism in order to develop their expertise and skills while making profit out of it. Accordingly, a general outlook of countries which conduct medical tourism can be classified as established or emerging tourism markets.

Countries have adopted different healthcare provision models depending on the characteristics of their society, their needs and their sources as well as economic status and governance model. Implementation of a healthcare system in a country requires a sustainable financing mechanism. The mechanism may have different types of sources (general tax, payroll tax, contribution/premiums, direct payment) in order to maintain the functioning of the health provision model. Most of the countries have established healthcare provision model based on household contributions which demonstrates varieties among countries due to their adopted healthcare service model.

On marketing strategies perspective, among those which consider medical tourism as an industry to be promoted, a set of marketing strategies is implemented in guidance of public sector, private sector or both parties. Some of the mostly observed marketing activities are hosting and participating in international medical tourism congress and symposiums, publishing articles and magazines on medical tourism and establishing websites to provide trustful information on treatments and services provided in the country. It is discovered that most of the case countries use marketing strategies in combination. It also depends on how countries' approach to the medical tourism industry shapes the management and organizational

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<sup>2</sup> PwC Analysis, Allied Market Research

<sup>3</sup> PwC Analysis, World Bank

<sup>4</sup> PwC Analysis, UNCTAD

structure of stakeholders interested in the industry. Medical tourism stakeholders can be classified into four categories; mainly the public sector, the private sector, the civil society sector, and the population (e.g. patients). Lastly, countries embracing a defined medical tourism approach construct legislative frameworks for the related activities as well. Within the scope of this specific framework, besides healthcare regulations and tourism pillar of medical tourism which are almost present in all countries, implementations such as medical tourism visa and medical tourism accreditation attributed to eligible healthcare providers and intermediary agencies are observed among the countries with a medical tourism approach.

## **Benchmark Countries**

The purpose of the comparative research is to evaluate countries with the same indicators and features in order to compare their performances as long as the data is available. In this research, comparison was made through sections such as infrastructure, healthcare model, stakeholders, marketing strategies, financing of healthcare services and legislation. Case countries have been selected with a set of 3 criteria that takes into account indicators such as Medical Tourism Index, health related travel export value and country references. As a result of this selection 4 OIC countries (Azerbaijan, Jordan, Malaysia and Turkey,) and 3 non-OIC countries (Germany, India, US) were selected for country benchmark while field trip study destinations were identified as Turkey and Germany.

### ***Azerbaijan***

Azerbaijan is especially known with its globally recognized and unique wellness tourism destinations. In terms of medical tourism, the market can be considered as in the emerging phase. However, the number of medical tourists preferring Azerbaijan for medical purposes is limited. Pull factors that may attract international patients to the country can be identified as wellness opportunities, geographical location, cost competitiveness and touristic attractions while push factors are insufficient medical service quality, obstacles in accessing healthcare services due to high out-of-pocket expenditures and privacy concerns.

### ***Jordan***

Jordan is a strong actor in medical tourism market with 503 million US dollar export and 160 million US dollar import value according to health-related travel data.<sup>5</sup> Geographical proximity, cultural affinity, use of common language and religious similarity with the Middle East and North Africa regions make Jordan an important destination country in the medical tourism market. Jordan offers high quality medical services at relatively low cost which gives the advantage of price competitiveness to the country. In addition to these factors, Jordan is also preferred in the region due to its service quality and advanced treatment methods. The country has constantly increased its health infrastructure by promoting quality and international standards. The country has also developed its national healthcare standard. On the contrary, some other factors such as high out of pocket expenditure due to lack of insurance make citizens of Jordan consider meeting their medical needs abroad.

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<sup>5</sup> ITC Trade Map, 2017

## ***Malaysia***

Malaysia is one the emerging markets of medical tourism sector with 294 million US dollar export and 23 million US dollar import value regarding health-related travel.<sup>6</sup> The country was recognized as the “Best Country in the World for Healthcare” from 2015 to 2017 and in 2019.<sup>7</sup> Malaysia positioned itself in global medical tourism market as a low-cost destination where high quality health services are available with a comprehensive range of treatment types. Various branch hospitals have been established in order to improve the quality of health services and to develop specialization areas in order to progress certain areas of expertise. To sustain the high-quality level of the health services provided, both global and local accreditation mechanisms play major role. Also, country attracts Muslim patients with special services such as halal food, prayer rooms and halal medical treatment. On the other hand, high out-of-pocket expenditure and long waiting times in public facilities are the main driving factors for Malaysian citizens to get treatment outside their country.

## ***Turkey***

Turkey is an increasingly recognized and preferred destination in medical tourism market with 763 million US dollars of export and 700 thousand of medical visitors<sup>8</sup> hosted in 2017.<sup>9</sup> The medical tourism in Turkey constitutes 3.4 percent of the country’s tourism sector while it has 7 percent share in the global medical tourism market.<sup>10</sup> High performance in indexes which help to determine the country's global competitiveness indicate that Turkey has been improving its position in the global medical tourism market. The factors attracting patients to Turkey for medical tourism can be identified as high-quality medical care with affordable prices and geographical proximity. To sustain the quality in healthcare services Ministry of Health along with Turkish Medical Association determine the local standards and guidelines that are followed by hospitals, healthcare facilities, and medical practitioners in addition to JCI accreditation. Turkey has 42 health facilities accredited by the Joint Commission International which has the second highest rank in the world.<sup>11</sup>

## ***Germany***

Germany is one of the leading countries in the field of health thanks to its well-established healthcare system, research and development capacity. The citizens are under coverage of national health insurance program which allows them to access health services in public hospitals and clinics. Although public hospitals do not require additional payment from the patients, they maintain a good level of service quality. The medical tourism in Germany does not constitute priority topic at government level. All international patients coming for treatment in Germany arrange their affairs on their own or through some private intermediary agents. Even though there is no attraction material used for encouragement of foreign patients to meet their medical needs in the country, international patients prefer Germany due to its developed medical infrastructural capacity and expertise of medical personnel. On the other hand, the

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<sup>6</sup> ITC Trade Map, 2017

<sup>7</sup> US-based International Living Magazine

<sup>8</sup> Republic of Turkey Ministry of Health

<sup>9</sup> ITC Trade Map, 2017

<sup>10</sup> *Medical Tourism: A Prescription For A Healthier Economy*. World Travel and Tourism Council (2019)

<sup>11</sup> Republic of Turkey Ministry of Health

reasons that German patients consider traveling abroad for medical needs can be summarized as cost of treatments and waiting times for specific treatments.

### ***India***

India secures its position as an important destination for medical tourism and become a leading example with 305 million US dollars of export ranking in the 10th place in 2017.<sup>12</sup> The country is globally recognized with its excellence in health sector offering advance technologies in high quality of medical services at affordable prices. In relation with improvements in the medical sector, the Indian government has become one of the first authorities in Asia to recognize the potential of medical tourism. The government support has also played a crucial role in the expansion of health tourism sector. This support included the improvement of airport infrastructure and execution of a marketing strategy to promote health tourism and medical treatment. India's competitiveness in the medical tourism industry relies on advantages such as cost effectiveness, quality of medical services, diversity of tourism destinations and technology.

### ***The United States***

The US ranks as the first country in medical tourism market with its 3.9 billion USD of export (ITC Trademap, 2017). The main motivation of patients who prefer the US as a destination for treatment is mostly due to quality of treatments rather than prices. Especially for serious diseases, the US becomes a respectable option as regards its know-how and skills developed through continuous investments in healthcare infrastructure. However, more and more Americans seek to receive health services abroad. Because of the high treatment cost, lack of insurance coverage, and difficulties in accessing healthcare; US citizens tend to prefer receiving medical services in more affordable destinations rather than being obliged to pay higher prices in their home country. Despite the motivations which lead US citizens to seek medical treatments in other destinations, the US health system continues to attract foreigners.

### **Policy Recommendations**

Since all countries have their own unique approach in governance, healthcare provision and financing schemes; components such as infrastructure, marketing, stakeholders and legislation have become the main domains for policy recommendations. The target of the recommendations is to define the actions that would increase medical mobility, improve healthcare quality and infrastructure and improve intra-OIC cooperation in medical tourism.

Under the umbrella of infrastructure related policy recommendations; strengthened health infrastructure through investments in education and research and development (R&D) activities related to healthcare, specialization in the fields of health in order to provide a range of medical services and treatments and arranging exchange programs for medical personnel among OIC countries to boost knowledge sharing can be taken into considerations. To facilitate the coordination and setting standards in the ecosystem, it may be useful to set up an accreditation body within the scope of medical tourism and establishing education council for the personnel exchange program. In order to make the accreditation and coordination bodies

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<sup>12</sup> ITC Trade Map, 2017

unique to OIC countries, additional standards that OIC countries specifically demand in healthcare provision can be included such as halal tourism requirements. Such developments will increase the competitiveness of countries in medical tourism at the OIC and global level.

As for the marketing strategies, using combination of online platforms and conventional methods is essential to reach out target groups as well as staying updated about the novelties in the sector. While an international conference among OIC countries allows representatives of each country to expand their network and knowledge, effective use of social media accounts builds a community of followers who consequently contributes to the “word of mouth” marketing. Also, establishment of a database on health tourism supports the marketing activities as it will allow tracking of the demand and the supply across the countries. Furthermore, government level actions such as introduction of a priority visa specific to medical tourism or bilateral agreements between governments and protocols between government and private insurances ensure the mobility of international patients.

## Introduction

Medical tourism as a sub-category of health tourism is interrelated with both health and tourism sectors. While medical treatment is at the core of medical tourism, it involves various complimentary services such as travel, lodging, food and sight-seeing besides healthcare provision. As a result of this dynamic structure of the sector, many stakeholders such as healthcare providers, medical professionals, travel companies, lodging facilities and insurance companies have a fundamental role for the efficient and effective functioning of the market. Therefore, medical tourism requires a state level holistic approach to plan, provide, promote and coordinate all the related activities in condition that countries intend to become a medical tourism destination.

In light of this requirement, this project carries an importance for exploring the theoretical background in medical tourism, defining the motivations behind medical travel, classifying the characteristics of the source and destination countries as well as identifying product and service trends in both emerging and established markets. On the other hand, analyzing regional market size and growth trends accompanied with OIC regions' current situation in terms of medical tourism supply and demand have constituted the ground for classifying OIC countries for the purpose of prioritizing policy recommendations.

The theoretical framework is drawn in the first section of this report, whilst the situation analysis of medical tourism market from global and OIC perspective is conducted in the second section. Consequently, benchmark studies that included 3 Non-OIC countries (Germany, India and USA) and 4 OIC member countries (Azerbaijan, Jordan, Malaysia and Turkey) are discussed in the third section in order to portray a comprehensive snapshot of the related markets from healthcare provision and infrastructure to their marketing strategies. The study also provides policy recommendations for OIC member countries in regional and international cooperation level so that medical mobility among the members could be fostered while a cooperation environment could be revived in health sector.

The main aim of the study is to comprehend the dynamics of medical tourism and the related variables in order to determine the functioning of medical tourism models and structures. As a result of disclosing different methods regarding healthcare provision, stakeholder structures, legislative arrangements and marketing strategies accompanied with their country specific applications upon which policy recommendations are established; member states will be able to have a managerial and policy guideline for creating or improving medical tourism.

# 1 Medical Tourism Outlook



## 1.1 Conceptualization of Medical Tourism

### 1.1.1 Definitions and Concepts Related to Health Tourism

Health tourism is a concept of which the roots date back to the first civilizations in history. People have tended to seek effective remedies for their health problems. Therefore, since the early ages, people have been moving from their homeland to other lands where they believe there is a better medication or treatment available. Although the concept is old, framing the concept with definition is quite a new notion among scientists and researchers of today. It poses, for this reason, many obstacles when defining health tourism. There are several different approaches; yet, there is still no universally accepted definition.

As regards health tourism, the most accepted definitions emphasize different characteristics of the concept. A broad conceptualization of health tourism defines people who travel for health purposes from one place to another. It comprises, therefore, all types of treatments regardless of the nature of medicine. Conventional medicine, traditional medicine and natural treatment methods such as hot spring thermals and spas are also considered under the umbrella of the health tourism concept. Hence, it is possible to suggest that health tourism is an inclusive term for medical tourism and other forms of health-related tourism such as elderly tourism and disabled care tourism.

As the definition for health tourism is not precise, the term has been interchangeably used for medical tourism and other forms of health-related tourism in daily life. However, recent studies suggest that health tourism is an ensemble of all sorts of health-related tourism activities (Jeyarajasekar, 2019) (Gill & Singh, 2011) (Lee, 2007). Defining sub concepts of health tourism is as much important as defining health tourism. Lack of common definitions in the literature also causes diversification in data collection and interpretation of health-related tourism.

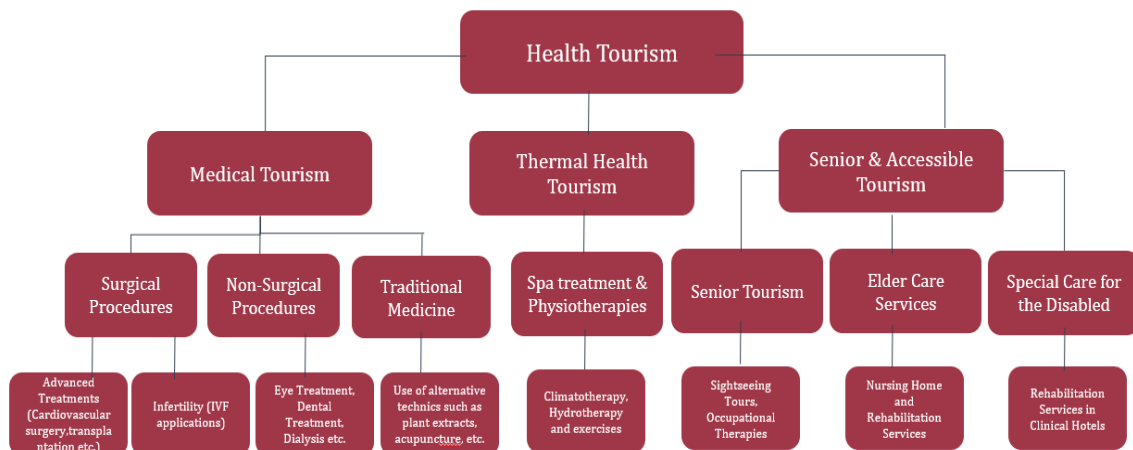
In a narrower perspective, health tourism is defined as “any kind of travel to make yourself or a member of your family healthier” which emphasizes on its travel part (Ross, 2001). Travel is described by Freeman and Woodall as “a new experience that exposes people to a number of physical and psychological challenges in a new unknown environment” (Woodall & Freeman, 1999). On the other hand, the term “tourist” is explained, according to Theobald, as “an individual who stays away from home for more than twenty-four hours and during that time uses accommodation in a new environment” (Theobald, 1998). He also adds that if the stay is less than twenty-four hours, the person can be called as a “visitor” instead of “tourist”.

*From this point of view, our definition of health tourism can be summarized as “travelling from one place to another for a certain period of time to receive medical, wellness or other health-related services in order to improve, protect or consult health status”.*

### 1.1.2 Categories of Health Tourism

Subcategories of health tourism can be differentiated by the nature of the treatment. As recent researches suggest, health tourism offers an umbrella status covering all types of health-related tourism activities. Health tourism covers not only medical operations but also non-medical procedures and therapeutic treatments as well as elderly care and disabled care that are received abroad.

**Table 1. Subcategories of Health Tourism**



Source: Turkish Ministry of Health, PwC Analysis

In reference to the Table 1, health tourism can be examined in three categories namely, medical tourism, thermal health tourism and senior tourism. Medical tourism offers surgical or non-surgical treatments such as cardiovascular surgery, organ transplantation, infertility treatment, dialysis, eye treatment and dental treatment while it also covers traditional medicine technics such as acupuncture, Ayurveda, herbal remedies. Thermal health tourism provides spa treatment and physiotherapies such as climatotherapy, hydrotherapy and exercises. As the third pillar of health tourism, senior tourism and accessible tourism consists of occupational therapies, nursing home and rehabilitation services.

#### Medical Tourism

Medical tourism is based on conventional medicine which incorporates a system in which medical doctors and healthcare professionals use drugs, radiation, surgical or non-surgical westernized technics while treating patients at health centers such as hospitals and clinics.<sup>13</sup> Although there is no globally accepted definition is available, alternative definitions for medical

<sup>13</sup> National Institutes of Health. Conventional Medicine. [Last accessed on 2020 June 02]. Available from: <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/conventional-medicine#:~:text=A%20system%20in%20which%20medical,orthodox%20medicine%2C%20and%20Western%20medicine.>

tourism which are most widely used in the literature can be found in the following section (See Section 1.1.3.).

Traditional medicine, on the other hand, is not based on conventional technics; however, it aims to prevent diseases and maintain the wellbeing of individuals in addition to diagnosis or offering a series of treatments with regards to a disease. Traditional medicine is specifically preferred to complement conventional treatment methods for treating mild to moderate illnesses (Welz, Emberger-Klein, & Menrad, 2018). Therefore, as one of the subcategories, traditional medicine tourism may be of interest to many individuals in search of complementary treatment methods that constitute alternatives to conventional medicine. Traditional treatments harmonize health practices with cultural beliefs and approaches while using natural sources such as extracts of plants, mineral water and animal-based products instead of modern medicines containing chemical or biological active matter (Fokunang, et al., 2011).

### **Thermal Health Tourism**

Being a subcategory of health tourism, thermal tourism is a part of the wellness tourism. Wellness tourism is defined as *"The sum of all the relationships and phenomena resulting from a journey and residence by people whose main motive is to preserve or promote their health. They [people] stay in a specialized hotel which provides the appropriate professional know-how and individual care. They require a comprehensive service package comprising physical fitness/beauty care, healthy nutrition/diet, relaxation/meditation and mental activity/education"* ( Muelle & Kaufmann, 2001).

Thermal tourism, moreover, is described as *"the tourism in which the experience is associated with activities that involve health improvement through hydrotherapy or balneotherapy"*.<sup>14</sup> Thermal water is accepted as therapeutic<sup>15</sup> and can become a part of treatments in the form of hydrotherapy, aqua therapy, physical therapy, mud therapy, physical exercises, skin and body care.<sup>16</sup>

### **Senior and Accessible Tourism (Elderly and Disabled Tourism)**

According to WHO, although there is no general agreement on the definition of an "elder" or "old adult", most developed countries have agreed that persons above 65 years old are assumed as

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<sup>14</sup> Ramos V., Untong A. (2016) Spa tourism. In: Jafari J., Xiao H. (eds) Encyclopedia of Tourism. Springer, Cham

<sup>15</sup> Kervankiran, Ismail. (2016). Between Traditional and Modern: Thermal Tourism in Turkey. [Last accessed on 2020 June 04. Available from:

[https://www.researchgate.net/publication/311530986\\_Between\\_Traditional\\_and\\_Modern\\_Thermal\\_Tourism\\_in\\_Turkey/citation/download](https://www.researchgate.net/publication/311530986_Between_Traditional_and_Modern_Thermal_Tourism_in_Turkey/citation/download)

<sup>16</sup> Didaskalou, E., & Nastos, P. (2003). The role of climatic and bioclimatic conditions in the development of health tourism product. *Anatolia*, 14(2), 107–126.

“elderly people”.<sup>17</sup> Prevalence of developing chronic diseases, co-morbidities and disabilities increases as the individuals age and become physically less active.<sup>18</sup> WHO defines chronic diseases as the health conditions requiring ongoing management over a period of years or a decade.<sup>19</sup> However, elderly care does not only consist of treatment of chronic health conditions but it necessitates a multidimensional approach including health, social welfare, rural and urban development and legal sectors.<sup>20</sup> Therefore, elderly care should incorporate a holistic approach in healthcare provision.<sup>21</sup>

As for the disability, The International Classification of Functioning, Disability and Health (ICF) defines it “as an umbrella term for impairments, activity limitations and participation restrictions.”<sup>22</sup> According to ICF, disability occurs when individuals with a physical, genetic or psychological health conditions interact with personal and environmental factors such as buildings, transportation, etc. Disabled care and elderly care intersect when individuals have disability and age conditions although the terms cannot be used interchangeably.

However, elderly and disabled tourism covers diverse spectrum of services according to the specific characteristics of the group such as age, high incidence of morbidities and functional disabilities. Both elderly and disabled tourism covers activities such as sightseeing tours, occupation therapies as well as nursing homes and clinical rehabilitation services. Another characteristic of this tourism type is that it is entailed with long term stays compared to other health tourism categories due to obtaining special care and geriatric treatment.

### 1.1.3 Definitions of Medical Tourism in the Literature

Medical tourism has recently grown into a topic of interest to the researchers although it has been perpetually practiced for centuries. It is nowadays widely accepted as a new socio-economic trend as the topic combines many fields of study such as economics, trade, health sciences, international relations and communication. It, therefore, becomes crucial in this subject to obtain information and data in standard form which is essential for analytical research. The first step to achieve standardized information requires a clear conceptual definition. In this sense, medical tourism occurs as a result of people who travel abroad to obtain medical, dental and surgical care in order to minimize their cost of healthcare as well as to benefit from touristic activities (Connell, 2006).

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<sup>17</sup> World Health Organization. Definition of an older or elderly person. 2013. [Last accessed on 2020 May 27]. Available from: <https://www.who.int/healthinfo/survey/ageingdefnolder/en/>

<sup>18</sup> Boutayeb A, Boutayeb S. The burden of non-communicable diseases in developing countries. *Int J Equity Health*. 2005;4:2. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC546417/>

<sup>19</sup> World Health Organization. The growing need for home health care for the elderly. 2015. [Last accessed on 2020 May 27]. Available from: [https://applications.emro.who.int/dsaf/EMROPUB\\_2015\\_EN\\_1901.pdf?ua=1](https://applications.emro.who.int/dsaf/EMROPUB_2015_EN_1901.pdf?ua=1)

<sup>20</sup> World Health Organization. Towards policy for health and ageing. [Last accessed on 2020 May 27]. Available from: [https://www.who.int/ageing/publications/aic\\_fs\\_ageing\\_policy.pdf](https://www.who.int/ageing/publications/aic_fs_ageing_policy.pdf)

<sup>21</sup> Shrivastava, S. R., Shrivastava, P. S., & Ramasamy, J. (2013). Health-care of Elderly: Determinants, Needs and Services. *International journal of preventive medicine*, 4(10), 1224–1225. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3843313/>

<sup>22</sup> World Health Organization. Definition of disability and health. 2018. [Last accessed on 2020 May 27]. Available from: <https://www.who.int/news-room/fact-sheets/detail/disability-and-health>

In accordance with the idea of receiving treatment beyond national borders, Organization for Economic Co-operation and Development (OECD) defines medical tourism through *“consumers who travel across international borders to receive some form of medical treatment. This treatment may span the full range of medical services, but most commonly includes dental care, cosmetic surgery, elective surgery, and fertility treatment”* (Lunt & Carrera, 2010). In addition to specifically naming the forms of treatment in their definition, OECD also adjoins an economic perspective to the definition: *“ There has been a shift towards patients from richer, more developed nations travelling to less developed countries to access health services, largely driven by the low-cost treatments available in the latter and helped by cheap flights and internet sources of information”* (Lunt & Carrera, 2010).

In this regard, medical tourism requires elaboration from different aspects such as economic status, scope of healthcare provision and access to healthcare services. These are also the main factors which determine patients' behaviors. Examining the factors at both individual and country level for both countries of origin and destination countries will also help interpret the types of medical tourism while exploring the reasons behind why people prefer to receive healthcare other than their country of residence.

According to the definitions provided above, medical tourism takes place in a place other than the patient's residency. From different angles, this results in the occurrence of three types of medical tourism: inbound, outbound and intra-bound tourism. Traveling patients to second countries becomes outbound for their country of residence whereas they generate inbound tourism for the destination country. Traveling for medical purposes within the borders of the country of residence creates intra-bound medical tourism, in other words, domestic medical tourism. However, domestic medical tourism will not be elaborated within the scope of this report as it does not generate foreign currency inflow. The reasons behind generating inbound and outbound tourism will be examined in the following sections.

#### **1.1.4 Main Drivers of Medical Tourism**

Globalization of healthcare has enabled patients to get treatment outside of their home country. Factors that foster medical tourism include both demographic trends as well as healthcare market developments. Increase of aging population and average life expectancy in the developed countries<sup>23</sup> are entailed with the rise of chronic diseases that affect the demographic trends by increasing the demand for healthcare. On the other hand, factors such as affordability and availability of the medical treatment, waiting times, quality of the medical care, medical innovation capabilities, national health schemes, and scope of insurance coverage are significantly stimulating the decision behind medical tourism.

The drivers behind an individual's decision to seek global treatment are mainly related with the person's sociodemographic attributes and the healthcare service offering in the home country

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<sup>23</sup> According to UN Reports, the percentage of people in developed countries over age 65 will arise from 17% to 24% by 2035. Average global life expectancy in 2005 was 69 years which increased to 72 years as of 2017.

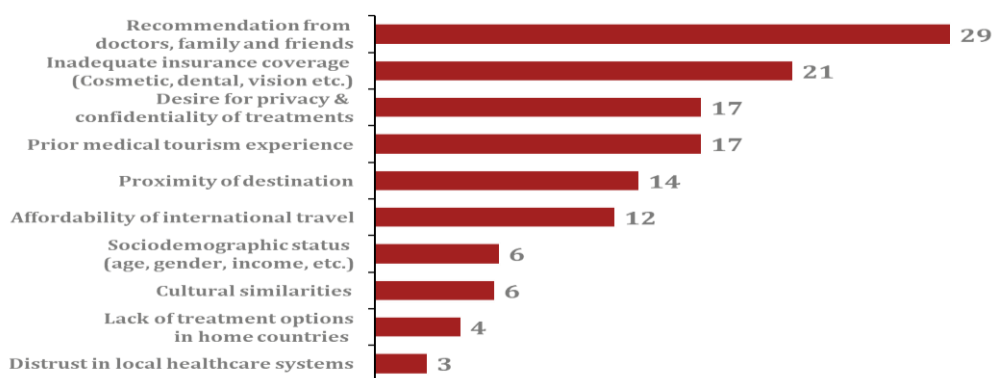
meaning the quality, cost, availability of the specific treatments in the homeland. Furthermore, the attributes of the destination country in attracting medical tourists are also involved in the decision-making process. Offering medical tourists state-of-art medical facilities and technologies, affordable costs, immediate access to medical procedures as well as post-treatment rehabilitation activities and tourist attractions creates the ground for destination selection.

Motivation to choose a specific country to receive healthcare services is established upon push and pull factors. Push factors constitute the ground for individuals to get treatment in another country besides their home country whereas pull factors represent the process from the destination country's perspective. Within this context, it can be contextualized in a notion that push factors influence the outflow of medical tourism while the pull factors affect the inflow of medical tourists (John & Larke, 2016).

#### 1.1.4.1 Push Factors in Medical Tourism

Push factors in medical tourism are mostly associated with the attributes of the individual tourists (Fetscherin & Stephano, 2016) such as their gender, age, income, culture, insurance status, and health status. The factors dominantly referred in the literature include recommendations from doctors, family, and/or friends, inadequate insurance coverage, sponsoring of foreign treatments from an employer or insurance company, and the desire for privacy and confidentiality of treatments. Besides these individual motivators, home country's healthcare characteristics such as quality of treatment, waiting times, accreditation of the facilities and lack of some specific medical treatments at home can also serve as push factors for outflow of medical tourism.

**Figure 1. Push Factors (%)**



Source: John and Larke, 2016

The dominant push factor cited in the literature that is the **recommendations** from doctors, family and friends, illustrates the role of word of mouth and testimonials in motivating international patients. For example, 81.4 percent of medical tourists from the United States (US) seek the opinion of their primary physicians before deciding their destination for receiving medical care (Singh, 2013). On the other hand, about 50 percent of the medical tourists choosing Malaysia were recommended by family, friends, or local general practitioners (Yeoh, Ahmad, & Othman, 2013). This shows the role of networks and relationships in medical tourism marketing (Hanefeld, Lunt, Smith, & Horsfall, 2015).

On the other hand, **inadequate insurance coverage** is found to be the second highest push factor in medical tourism. Individuals who do not have any insurance or have insufficient coverage seek options for getting medical care outside of the home country. Especially, when inadequate insurance coverage is combined with high costs of treatment in the home country, patients look for affordable choices abroad. It is the case for the developed countries such as the US, Canada or the UK (United Kingdom) where the scope of the coverage is limited, and cost of medical care is high. For instance, in the UK, the National Health Service (NHS) does not cover cosmetic or dental surgeries which are entailed with the outflow of medical tourists who seek to get these treatments abroad for an affordable price (Hanefeld, Horsfall, Lunt, & Smith, 2013).

Another important push factor stated in the literature is that **previous favorable travel or medical tourism experience in the destination** is likely to increase the comfort level of international medical tourists (Henson, Guy, & Dotson, 2015). For example, after the introduction of a Taiwanese medical tourist visa, Chinese tourists visiting Taiwan increased by 64 percent (Chang, Chou, Yeh, & Tseng, 2016). The factors such as geographical proximity, cultural and linguistic familiarity, lack of treatment options in the home country and the desire for privacy are the other reasons behind the increase in the number of medical tourists.

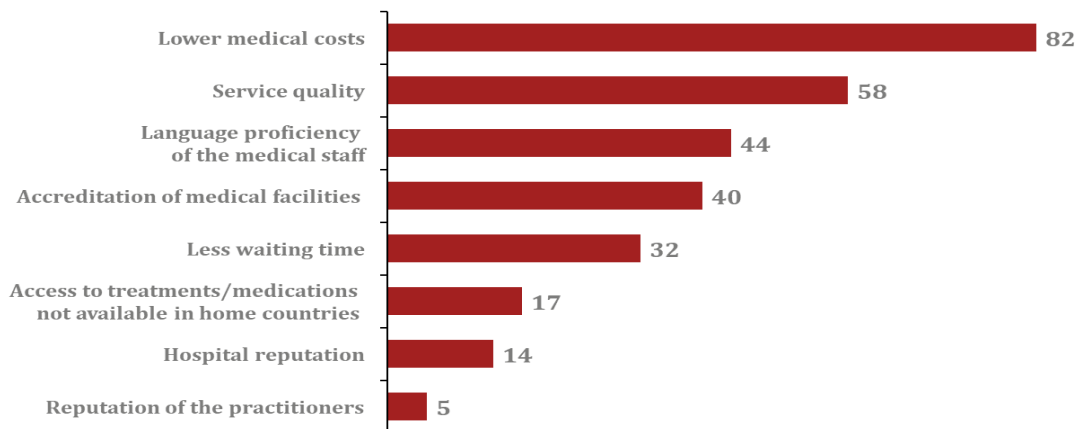
#### 1.1.4.2 Pull Factors in Medical Tourism

Pull motivators in medical tourism are entailed with the attributes of the destination country that stimulate demand for inbound medical tourism. Pull factors can be classified under two groupings that are (i) healthcare provider-specific and (ii) destination-specific factors. Healthcare specific factors have higher weight in the literature review in terms of selecting destination countries for the purpose of medical treatment.

##### **Healthcare Specific Factors**

Healthcare provider related factors medical costs, hospital and medical professional reputation, service quality, accredited facilities, availability of specific treatments, medical innovation capabilities affect the patient's decision to choose a specific destination for treatment.

**Figure 2. Pull Factors for Healthcare Providers, %**



*Source: John and Larke, 2016*

The most prominent factors in terms of healthcare specific pull factors cited in the literature is the **lower treatment costs**. Especially, for patients from the developed Western countries such as the US, Canada or the UK lower medical costs are a significant attraction point. For example, a coronary artery bypass surgery that costs between 70 to 130 thousand US dollars in the US might cost only 23 thousand US dollars (including transportation and accommodation) in an internationally accredited hospital in Singapore (Gan & Frederik, 2013).

**Service quality** in healthcare includes various dimensions such as services and physical facilities, quality of care, usage of state of art medical technologies and patient-doctor relationship. These dimensions are entailed with both technical care and art of care. Technical care is described as the adequacy of diagnostic and therapeutic processes, while art of care refers to the manner and behavior of service provider in delivering healthcare and communicating with the patient (John J. , 1991). On the other hand, communication skills and use of common language are other reasons that also affect the quality of the service. A study conducted among medical tourists from Botswana and Mozambique to South Africa depicted that these tourists are treated as residents of South Africa due to their language similarity which affects the quality of the services (Crush & Chikanda, 2015).

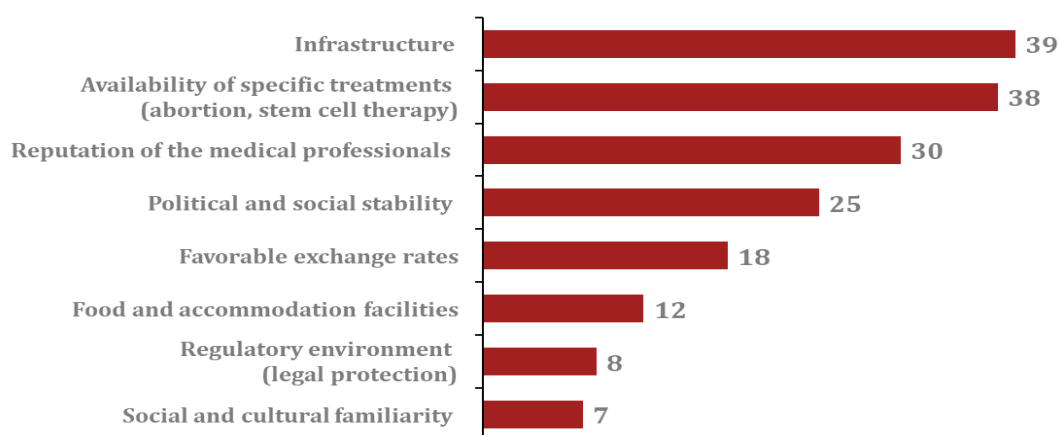
**Accreditation** of the medical facilities and services attract the medical tourists to a certain destination since it implies the fact that the medical facility itself and the care providers can meet certain professional standards. Accreditation plays a significant role in terms of displaying the quality of the medical tourism markets such as Turkey, Thailand, India, Malaysia and Singapore. On the other hand, accreditation of the medical professionals and facilities also serves to the needs of the local patients by improving the quality of the services.

Another important pull factor is **availability of immediate treatment options** in the destination country. It is highly intertwined with the conditions such as insurance coverage, healthcare infrastructure and NHS of the home country. This becomes an important factor especially for urgent treatment needs.

## Destination Specific Factors

Destination-specific motivators refer to those factors that make a specific location attractive for tourists including medical tourists. Most commonly cited destination-specific motivators can be collocated as the public infrastructure of the destination, availability of specific treatments, reputation of the medical system, political and social stability of the destination country. Besides these factors, favorable exchange rates, food and accommodation facilities, regulatory environment and social and cultural familiarities, the ease of access to credit and the climate of the destination can also be cited as other motivating factors.

**Figure 3. Pull Factors for Destination, %**



*Source: John and Larke, 2016*

**Destination infrastructure** includes availability of medical tourism agencies, transportation options, availability of insurance. The existence of developed infrastructure in terms of medical services combined with lower cost of treatments significantly affect focalizing the demand for some destination countries. For instance, Asian medical tourism markets such as Singapore, India, Thailand and Malaysia have been transforming their public and private health infrastructure in order to capture this demand. However, while destinations such as India and Thailand are acknowledged for cost-effective treatments, Singapore is positioned as a medical tourism hub for high-quality medical services with advanced medical technologies and infrastructure (John & Larke, 2016).

Another factor affecting the decision of the international patients is the **availability of specific treatments** which are not covered in the home country. As an example, medical tourism companies in Canada mostly target uninsured or underinsured Americans who are seeking access to treatments at medical facilities outside the US (Turner, 2010). Taking into consideration the socio-demographic characteristics of developed nations with aging population, their need for complex and expensive medical treatments can be met by medical tourism destinations in the developing countries.

Furthermore, the presence of **patient protecting legal systems** such as liability laws, immigration law, physician licensing, corporate ownership, and reputational protection influence the decision of the patients. Ensuring remedies for malpractice and protecting the international patient's right in the destination country provide a ground for the development of medical tourism.

### **1.1.5 Benefits and Risks of Medical Tourism**

Medical tourism globally has become a billion-dollar industry in relation to the increasing number of people who travel to other countries to get healthcare services. Today, millions of people travel abroad for medical purposes. Various factors such as cost effectiveness, better quality in services, less waiting time, availability of treatments, alternative therapies and natural endowments play a role in their decision to receive medical treatment away from home country. Medical tourism constitutes a concept in which many actors are involved. As the concept underlines the mobility of people, it is possible to suggest two types of country at stake. From the perspective of a traveling person, their home country becomes the source country which generates "medical tourists" due to several reasons mentioned in the earlier sections (See Section 1.1.4). The health service provider, which is preferred by the patient, therefore, becomes the destination. When analyzing risks and benefits of this concept, it is necessary to refer to both types of countries as the effects of medical tourism are observed in different forms on each side.

#### **1.1.5.1 Benefits of Medical Tourism**

##### **Patient's Point of View**

###### *Cost Efficiency*

One of the prominent benefits of medical tourism from the patient's side can be suggested as cost efficiency. Access to treatments in accredited facilities with well-educated health personnel at low cost is a leading factor which motivates patients to travel for medical purposes (Statista, 2017). In the developed part of the world, especially in West Europe and North America, healthcare expenditure depends on out of pocket expenditure when social security coverage does not provide an inclusive scheme for certain treatments. In need of a treatment which is not covered by the social security program, patients are obliged to pay for their own expenses. Being exempted from the coverage treatments such as dentistry and esthetics has become a reason why patients seek for lower cost solutions abroad. Developing countries promise new healthcare facilities equipped with the latest technology at affordable prices. Even though traveling abroad requires an extra cost and planning, it still provides significant advantages in terms of cost efficiency (Statista, 2017).<sup>24</sup>

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<sup>24</sup> According to Patients Beyond Borders, for the same medical procedure one can save up to 50 to 65 per cent in Turkey; 65 to 80 per cent in Malaysia; 65 to 90 per cent in India, compared to prices in the USA.

### *Waiting Time*

The resources reserved for the healthcare service providers may not be sufficient in many countries considering the fact that life expectancy is increasing year by year which leads to emergence of aging societies. As aging brings chronic diseases along with itself, the burden on healthcare service providers increases to a large extent. This relatedly results in long waiting times for specific treatments (OECD, 2017).<sup>25</sup> Therefore, in addition to cost advantage, medical tourism occasionally becomes a necessity for patients. In countries where waiting times last for months for a surgical procedure, the urgency of the situation may necessitate traveling to another country to get treatment. In such cases, voluntarily or necessarily the patient looks for alternatives abroad.

### *Expertise and Service Quality*

Another factor being effective on a patient's decision to have treatment abroad is determined by the country's or service providers' reputation in specific areas. Some countries have been recognized by their traditional healing methods while others have developed reputation with their expertise on specific treatments. Destination selection for the treatment becomes clearer in relation with patients' needs. Expertise in the field along with good quality of service determines a patient's decision. Therefore patients, firstly, explore alternatives and then evaluate best options among them based on their needs and preferences.

## **Destination Country's Point of View**

### *Income*

Health and tourism industries have a symbiotic relationship in which, both benefit from the growth of the other sector. The two sectors nurture each other in terms of capacity building and expansion in various spheres. Diversity in touristic activities makes a country more attractive among other destinations. Especially, the developments in the travel industry boost tourism as it facilitates passengers' access to destinations. With the rise in the number of visitors, destination country and medical services become globally more visible. Consequently, this brings more medical tourists into the country and develops the healthcare industry.

Apart from the tourism industry, healthcare services in a specific country create its own reputation. High quality of services and expertise on a range of treatments map a country as a medical tourism destination. Diversity and availability of information channels also ensure easy access to medical services, regardless of distance. In line with this perspective, many people combine their medical needs with their curiosity to explore new cultures and territories.

Triggered with the above-mentioned factors, inbound tourism grows and thus, the income generated from tourism increases. The more people circulate, the more the industry enlarges.

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<sup>25</sup> According to OECD 2017 data waiting times for selected procedures in selected countries are as follows: Cataract surgery: 54.8 days in Hungary, 254.2 days in Ireland and 120.8 days in Portugal; Hip replacement surgery: 72 days in Sweden, 285.5 days in Slovenia and 1426 days in Estonia

Growing industry contributes to the country's wealth through foreign currency inflow as well as tax revenues collected from tourism and medical tourism industry.<sup>26</sup>

### *Spillover Effects in Private Sectors*

Developments in the medical tourism industry create spillover effects on several associated industries such as medical devices, pharmaceuticals, health insurance, transport, accommodation, food and beverage, retail.

For instance, travel agencies serving medical tourists offer additional services to their customers, such as picking a hospital for the treatment, transportation, accommodation, sightseeing activities for patients and their family, shopping tours, which are tailored plans for patients. This naturally engenders an ecosystem in which actors position themselves around the healthcare providers. International health insurance companies also play a critical role in medical tourism. The mobility of patients is often encouraged by insurance companies. In countries where healthcare provision is expensive, insurance companies try to reduce their costs by allocating patients to providers in lower-cost countries. Alternative treatment plans in another country can reduce costs for the insurance companies even if they have to pay for the travel and accommodation of the insured. New businesses and job opportunities are generated in order to meet the additional needs of patients.

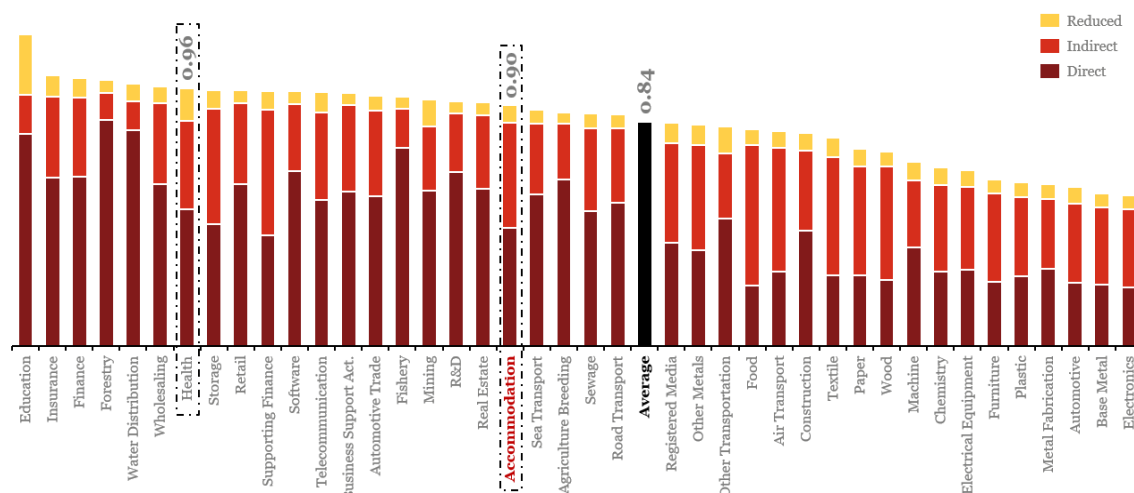
To illustrate, 100 unit of added value created in tourism related services sectors such as accommodation and food and beverage engender 90 unit of added value in total whereas 100 unit of added value created in health sector generate 96 unit of added value in total in Turkey (See Figure 4).

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<sup>26</sup> For instance, according to ITC Trade Map travel related to health export data for 2017, the USA is the leading country with 3.9 billion USD.

**Figure 4. Spillover Effects by Industries**

*Added value multipliers of sectors*



Source: WIOD, PwC Analysis, 2014

## Employment

Increase in employment rate is an expected outcome of the spillover effects created in medical tourism related sectors. Since new opportunities occur in order to meet the demand arisen from the mobility of people, additional staff is needed to serve customers. Not only employees with technical capabilities are in need, but also support personnel is necessary to fill the supply gap emerging in periphery industries. On the other side, the motivation for being an accredited member in the sector pushes labor force and employees to enroll in education programs such as vocational training and certificate programs in a specific area. This way, additional labor force can build up in accordance with sectoral needs and requirements.

## Reputation and Country Image

Becoming a popular destination for medical needs and tourism activities by a growing number of people has positive impacts on the country's image. This not only helps to construct close relations at an individual level between societies, but also has various benefits at the governmental level. For example, good communication at governmental level contributes to bilateral trade relations in other services and goods.

An additional impact that is introduced by the mobility of people can be observed in the rankings of various indexes about tourism or medical tourism destinations such as Medical Tourism Index (MTI), Travel and Tourism Competitiveness Index (TTCI) and UNWTO World Tourism Barometer. As a result of the interaction between increasing the number of inbound tourists and reaching high rankings in indexes, destination country improves its popularity and visibility

around the world. Improving or at least maintaining the service quality allows the country to develop a persistent reputation.

### **Source Country's Point of View**

#### *Opportunity for Capacity Building*

The reasons behind why patients prefer to depart for their medical needs become essential for source countries when analyzing their infrastructure on healthcare. The needs assessment on this matter shows prominent factors and the most needed treatments which are either non-existent in the country or for which the quality of services, expertise and waiting time is not sufficient. When examined in detail, the gaps in the ecosystem may turn into benefits for source countries. Introducing new implementations in the healthcare system corresponding to the needs of patients may also help develop the technical capacity in the source country, including technological development and expertise on specific treatments. For instance, Azerbaijan has established various cooperation frameworks with international organizations and institutions such as Council of Europe, UNESCO and UNICEF. The aim is to improve quality of medical procedures in the fields of science, education and public awareness by enabling mobility of doctors in different countries (Universitat Politècnica de Valencia, 2018) and to improve the capacity of local institutions through knowledge exchange. As another example for knowledge transfer, Open Medical Institute (OMI), which is created by American Austrian Foundation (AAF), supports countries with poor healthcare infrastructure as in Africa region through facilities with qualified physicians and multiple medical educational programs to build local capacity in the long-term (Open Medical Institute (OMI), 2011).

#### *Fast Solution to Acute and/or Chronic Problems*

In countries where the healthcare system has insufficient capacity and private healthcare providers offer limited options, the probability of going abroad for treatment increase in parallel. The outsourcing of services to other countries consequently relieves the country of origin's health infrastructure. Also, the lack of expertise in the source country may cause the patient to travel to a destination hospital in another country. Responding to problems within this approach provides a fast solution nonetheless, it does not develop any permanent capacity. Therefore, the benefit can be stated as temporary.

#### **1.1.5.2 Risks of Medical Tourism**

As medical tourism generates benefits for both patients and countries, it also possesses risks. Risks can occur in various time spans: prior to traveling, during traveling, during treatment and post-treatment. While emergence of risk due to medical procedures may concern patients and doctors in the destination country, risks occurring during the travel may be a topic of interest for other stakeholders. Depending on the severity of the risk and where it happens, international

law may also apply. Therefore, risks are considered as a multiple-stakeholders' issues. In this report elaborated risks will be examined disregarding the legal dimension.

Medical tourism is expanding at a fast pace since it offers several benefits for both patients and countries. However, despite its many advantages, it also brings challenges to both stakes. To be minimally affected by the risks, patients and service providers need to identify challenges and risks that they may encounter. The risks may include issues such as: access to good quality of service, cost and treatment related procedures. The most common risks that patients can face are be listed as follows:

#### *Quality of Services*

Intermediary agencies offer professional help to arrange treatment and other related services. The reliability of intermediary agencies ensures the quality of services. Therefore, agencies are given authorization with certificates in order to maintain the service quality and patient rights. However, the presence of non-authorized agencies in the sector may develop unfavorable situations for medical tourist as a result of mismanagement or mismatching in services negotiated before patient's arrival. In relation to the gravity of unfavorable situations, the country's reputation may be adversely affected.

#### *Cost*

Booking a treatment abroad through intermediary agencies is the most frequently preferred solution to the medical needs. All arrangements including payment methods are pre-defined agreements on conditions and are signed upon arrival. When agreement is not approved and secured by two of the sides, the risk of receiving an unexpected bill regarding medical expenses may increase.

#### *Communication*

Use of common language is an important factor enabling communication between doctors and patients. Fluently speaking the language of the country where a patient receives healthcare, can help better explain and understand the needs and details of the treatment. Otherwise, risks arising from miscommunication may produce additional challenges and complications.

#### *Medication*

Considering that medication complements the treatment, access to safe medication is a crucial component of successful medical treatment. Counterfeit medicines or medicines with no clinical license compose an immense problem worldwide. In countries where the quality of medication is not precise, treatment and after treatment prescriptions may lead patients to hazardous situations.

#### *Travel Related Complications*

Medical tourism comprehends not only ambulatory treatments but also inpatient treatment. Certain inpatient treatments may require sensitive care before and after operation. Hygiene conditions in airports and aircrafts can be considered as the one of the sources of risks regarding travel. Also, the travel time between destinations may put a patient's health in risk. Additionally, changes in cabin pressure and turbulence during the flight may endanger or destabilize a patient's health status. Especially, flying after a surgery may increase the risk for blood clots (CDC, 2017).

## **1.2 Medical Tourism Industry**

### **1.2.1 Global & OIC Outlook and Market Size**

#### **1.2.1.1 Medical Tourism Industry and Its Mechanism**

Theoretically, there are four models<sup>27</sup> of healthcare system which correspond, separately or in combination, to the majority of countries' healthcare schemes; despite the policy differences in implementation. While one model would provide universal coverage in which all residents are included in the healthcare scheme, another model would make citizens pay for their own healthcare expenditures. The distinction in the healthcare coverage leads individuals to seek alternative ways to meet their needs. Therefore, in countries where mass medical care provision is not available with attainable fees, patients become the target population for medical tourism destinations.

Among all service provision models, out of pocket and two-tier healthcare service provision create immediate need for alternative medical services, whereas national and universal coverages indirectly create demand for medical tourism. Firstly, the out of pocket model does not offer any free of charge healthcare services to residents of a given country. Residents are expected to pay for their medical needs when they use healthcare services. It is, therefore, not possible to talk about any kind of public healthcare services in such countries. This is the main cause of why patients look for alternatives for their healthcare needs, especially for more affordable options. On the other hand, in two tier healthcare provision, in which those who can afford private insurance benefit from private healthcare provision and those who cannot afford private scheme enrol into public healthcare services. Therefore, patients are willing to avoid disadvantages related to the healthcare scheme available in the country by their own efforts.

Additionally, coverages such as national and universal, offer all healthcare services free of charge within the principle of welfare state. However, despite many advantages they provide, these models indirectly contribute to the generation of long waiting lines in hospitals since everyone is entitled to have access to finite medical resources when needed. Especially in emergency cases, which necessitate immediate action, traveling to other destinations with strong expertise and reputation in the medical field becomes an ideal option for patients.

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<sup>27</sup> These four models are: the Beveridge Model; the Bismarck model; the National Health Insurance model; and the out-of-pocket model. More detailed examination on the healthcare provision models can be found in the Part 2 of this report.

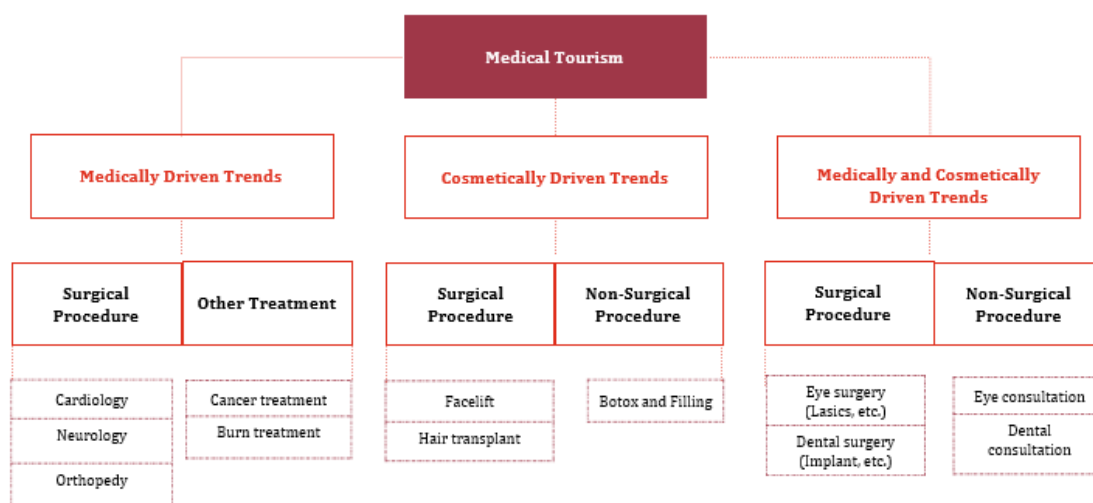
Shaped around pull and push factors elaborated in the previous sections of this report, the medical tourism industry is developed by several other forces. Designated healthcare models, for instance, contribute to the development of the industry. The mechanism designed for medical tourism is not essentially distinguished from that of the healthcare system of the issued country. The components of the health system are valid for medical tourism in order to attract patients from abroad as medical tourists. Thus, the healthcare model that provides the best scheme in compliance with needs and the quality of services provided in healthcare system, and the touristic capabilities of the country, together build the medical industry.

One other factor affecting the development of the industry is the quality of services delivered in the healthcare system. Healthcare system is composed of three stages: primary, secondary and tertiary level of healthcare services. Primary healthcare services include services delivered by general practitioners (GPs) and other relevant healthcare personnel such as nutritionists, nurses, etc. Primary level services are mostly composed of consultation and treatment, which do not require any specialization and are given at clinics and family medicine centres prior to any necessary hospital referral. Secondary healthcare services provide medical services within the expertise area of specialists. Patients consulted in primary healthcare providers are directed to secondary level healthcare providers according to their needs diagnosed by GPs. Many countries apply the appointment system to receive patients at the secondary level healthcare provision centres. Specifically, in countries where universal and national healthcare coverages are in place, the reference system becomes more crucial as it affects the waiting time for specific procedures. As for the tertiary level of healthcare, university research hospitals have become the main actors. Secondary healthcare providers refer patients who are in need of more specific treatment methods to such hospitals, and it is strictly prohibited to allow walk-in patients to such places. The quality at all levels of healthcare services provided in a given country determines the country's path in the development of the medical tourism industry.

#### 1.2.1.2 Medical Tourism Trends

Trends in medical tourism are determined by treatment and services types that are most frequently demanded around the world by international patients. The most prominent trends can be categorized based on their similar features. For example, some operations may be an obligation due to health conditions while some others may be requested because of solely cosmetic concerns. Also, in some cases medical needs may combine with cosmetic procedures as it can frequently be requested in procedures like to dental treatments and plastic surgeries. From this perspective, it is possible to divide medical tourism trends into three main categories: medically driven trends, cosmetically driven trends, and the combination of medically and cosmetically driven trends (See Table 2).

**Table 2. Trends in Medical Tourism**



Source: PwC Analysis

In this regard, medically driven trends comprise of the surgical procedures which relate to many medical branches such as neurology, cardiology, gastroenterology, etc. Need for surgical operation occurs when the patient suffers from a specific health condition. In such cases, patient is directed either by the doctor in his/her home country to a destination country, or patient himself/herself conducts the research to find out which destination offers the best treatment for the health condition. Another medical tourism trend based on health condition can be brought up as cancer treatment. Since cancer has become the second leading cause for death (WHO, 2018), patients and their families look for new treatment methods where available.

Also, cosmetic concerns have become a source for many treatment types. There is a shift in perception from curative methods in order to fight against diseases, towards preventive methods in order to prevent the emergence of health conditions and maintain health status. For instance, governments have started to appreciate the importance of preventive medicine and have included it in their health agendas, while at individual level, regardless of age and sex, many people utilize cosmetic products and follow healthy diets in order to decelerate aging process and to prevent side effects of aging. In this sense, for example, Botox, face lifting, hair implementation, etc. turn into popular technics for anti-aging and beauty related procedures as part of trends regarding cosmetic concerns.

On the other hand, treatments which combine both medical and cosmetic-oriented operations such as rhinoplasty, dental treatment, weight procedures can be classified as another component of trends in medical tourism. While patient seeks a method to meet his/her medical need, for instance difficulty in respiration, she/he can also desire to remove nasal hump in order to enhance his/her appearance.

## **Medically Driven Trends**

In reference to the Table 2 above, medically driven trends can be roughly grouped into two as those which necessitate surgical operations and those which require additional treatment methods. Cardiac diseases, neurological disorders, orthopedic impairments are the most commonly addressed health conditions to receive surgical medical intervention. Treatment for internal diseases and gastrointestinal disorders including diabetes and obesity are also in demand due to the sedentary lifestyle and dietary habits of our era. Furthermore, health conditions such as cancer, burn, in-vitro fertilization and organ transplant require additional treatment technologies and expertise. International patients prefer to benefit from capabilities of countries where technical capacity and expertise are present for the treatment of such complicated and/or crucial health conditions. In this sense, countries such as the US, Canada, Germany, India, Malaysia, Turkey and Mexico are among the top destinations for international patients in terms of advantages they offer in medical tourism industry. International patients to seek aforementioned treatments are mostly clustered in the Middle East Africa and North America regions considering the lack of expertise or high cost in their own regions.

## **Cosmetically Driven Trends**

Technological evolution has left its mark on the 21st century and established an environment where individuals transparently share their personal routines more often through social media and internet platforms. Increased interaction among individuals has voluntarily or unconsciously led people to take care more of their appearance. Habits shaped around self-care, beauty and fashion have consequently built new businesses in respective industries. The beauty industry can be mentioned as one of these industries. Concerning variety of services in the beauty industry, some procedures are also related to health and wellbeing. Procedures such as hair implementation and facelift for instance, require surgical operation, whereas filling or Botox injections do not require any surgical intervention. Such treatments arisen from beauty concerns have recently been a trending practice among people regardless of age and gender. Countries which develop a capability in such treatments build reputation and thus, attract many more international patients compared to other countries. Turkey being the leader, Germany and Spain also boost their presence in the industry for aesthetically driven trends, while the Middle East and Europe regions generate majority the demand.

## **Medically and Cosmetically Driven Trends**

As technology advances in many directions, techniques used in treatments also provide improved results in quality, resistance and appearance. Today, patients do not only demand curative solutions to their health conditions but also, they expect to receive it in its best version.

Especially in dental treatment and eye related procedures, esthetics become an important component of the treatment process. Tooth implant, oral and maxillofacial surgery, LASIK eye surgery and alike treatments which necessitate surgical operation are demanded as a result of a health need but also offer esthetic solutions. Other treatments without surgical operation such as teeth whitening, cavity filling, etc. are also in demand as a part of medical tourism, as they allow to spare more time for touristic activities. Thailand, Brazil, Poland, Czech Republic and Turkey have been prominent in provision of these medical services. Patients from the US, Gulf countries and Europe (especially from the UK), Nordic countries and Scandinavia prefer to receive these medical services for medical tourists.

#### 1.2.1.3 Established and Emerging Medical Tourism Destinations

As it is described in the previous sections, several pull and push factors characterize the development of medical tourism (See Part 1.1.4). The ensemble of all factors navigates countries to find their places in the global medical tourism industry. While some countries are already an attraction hub in specific treatments as regards their technical capacity and infrastructure, the others wishing to become more visible players at global level are developing new strategies. Countries, therefore, can be examined in two groups. First group consists of those which have already established reputation with their medical expertise and thus have become a leading country for medical tourism. Second group consists of those which have conceived the emergence of the market and enhanced their capabilities in order to become a player in the global market. In this sense, the countries in the first group can be referred as “established destinations”; and those in the second group can be labelled as “emerging destinations”.

**Figure 5. General Outlook for Medical Tourism Destinations in the World**



(\*) Signifies the countries analyzed as benchmarks in this study

Source: PwC Analysis

## Established Destinations

Established markets have the advantage of setting a “brand name” across the world in the health industry. Therefore, the main motivation for international patients to prefer such destinations lies in the technical advancement of medical services and corresponding awareness in global members. Reputation of specific hospitals and clinics, research and development activities, and expertise in specialties are among the stimulating factors.

### North America

The dominance of the United States and Canada in the healthcare industry is strongly connected to their research and development (R&D) capacities. R&D activities in clinical researches and pharmaceutical products lead the US and Canada to become popular destinations for health-related issues. As the scope of researches covers a wide range from rare diseases to the most frequently seen health problems, the credibility of both countries, particularly the US, in the health industry raises. Although prices are costly in hospitals/clinics in the region, these countries maintain their status as reliable destinations for almost all types of health concerns.

## *Europe*

The governance model of welfare state incorporates health as a right to all citizens. The state is responsible for the provision of healthcare services through comprehensive insurance schemes. Public healthcare services are available for citizens who are enrolled in the insurance system via their tax or premium contributions to the funding mechanism. This model of health system helps attain improved results in the fundamental health indicators, such as mortality rate, maternal and infant mortality rate, immunization rate, life expectancy at birth, etc. As problems related to fundamental health indicators have been systematically solved throughout the decades, doctors have found the opportunity to build expertise in specialties. Most of the European countries follow a similar approach in the health sector. However, regarding the ability of aligning the health infrastructure with the requirements of medical tourism industry, Germany and the United Kingdom stand out among the others.

## **Emerging Destinations**

Emerging markets have the advantage of competing with established destinations in prices, service quality and use of state-of-the-art facilities equipped with advanced technology. In other words, emerging markets offer a cost competitive alternative to medical services provided the established markets regarding medical tourism. Therefore, geographic and cultural proximity plays a great role in the development of medical tourism industry in emerging destinations.

## *Latin America*

Proximity to the US and Canada offers convenience to countries in Latin America for the development of the medical tourism industry. As medical services are costly in US and Canada, patients look for alternative destinations nearby. Countries such as Mexico, Brazil and Panama have improved their medical capabilities in order to attract international patients.<sup>28</sup> Medical services they offer address different segments of patients. For instance, while Brazil is more focused on esthetic and cosmetically driven procedures, Mexico is more concentrated in surgical operations.

## *Europe*

Healthcare services are publicly available in many developed countries especially in the West Europe. While such healthcare provision model works in favor of citizens, it naturally brings the waiting time as a problem. For some procedures, patients may not have the option to wait the scheduled time and this may lead them to travel to nearby destinations. Besides, another outcome of insufficient public healthcare provision can be observed in the high prices of private

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<sup>28</sup> Cuba is another prominent example standing out with its health infrastructure; yet, it is a distinctive case due to its governance system.

healthcare provision. In this sense, the preference of receiving medical services is shaped in relation to factors such as cost, proximity and expertise in given treatments. Countries such as Turkey, Poland, Czech Republic and Romania become ideal alternatives within Europe, in terms of variety, quality and cost of medical services.

### *Asia*


























Aggressive growth of Asian countries in recent years has also reflections in the health industry. Technological improvements for which the Asian countries played a substantial role have provided them a reliable reputation in various industries. Countries such as India, South Korea and Singapore have become globally recognized for their use of technology in development of new products and services. This reputation also creates advantages in the healthcare industry in attraction of international patients. Also, countries such as Thailand, Indonesia and Malaysia have made a leap in the industry, not only by using their capabilities in the use of technology, but also by showcasing their natural beauties as tourism destinations. In addition to state of art facilities, service quality and the use of advanced technologies, the physical advantages such as the geographical proximity and connectivity to developed and populated countries such as the US, Australia, China and Japan render these countries as hotspots for medical tourism.

## **1.2.2 Medical Tourism Outlook: Supply Side**

The increase in healthcare costs and developments in connectivity have driven individuals to search for affordable health treatment alternatives, which have fostered the demand for medical tourism. With the support of tourism and health institutions as well as governments, affordable and good quality healthcare services have become available for a wide range of individuals, in turn boosting growth within the global medical tourism market. As a result, the medical tourism market was valued 95.8 billion US dollars in 2018 and it is projected to reach 165.3 billion US dollars in 2023 (Sumant & Shaikh, 2017).

Due to lack of data in the field of medical tourism and the different data collection techniques utilized by various countries, a methodology that combines multiple data sources and methods is needed to achieve a detailed analysis of the medical tourism market. In order to provide a global snapshot of the medical tourism market, data specific to medical tourism is classified according to the World Bank regional classification (See Table 3). As a result, emerging and prominent regions have been compared in terms of infrastructure capacity, market size, number of international patients, and outstanding treatment types.

**Table 3. Regional Classification of Medical Tourism Destinations**

| North America  | Europe   | Asia - Pacific  | LAMEA   |
|--|--|---|---|
|  U.S.<br> Canada<br> Mexico |  Germany<br> France<br> UK<br> Italy<br> Turkey<br> Rest of Europe |  India<br> China<br> Indonesia<br> Singapore<br> Malaysia<br> Taiwan<br> Thailand<br> South Korea<br> Rest of Asia-Pacific |  Brasil<br> Venezuela<br> Costa Rica<br> UAE<br> Jordan<br> South Africa<br> Rest of LAMEA |

Source: World Bank

Medical tourists tend to prefer closer destinations especially for cardiovascular, neurological and cancer treatment in order to avoid travel related risks. Therefore, the radius of their travel distance and destination preferences vary in reference to their home country and the best destination that offers the type of treatment they seek. For instance, North American patients tend to stay closer to their home country and prefer mostly Latin America as their destinations whilst Europeans, Africans, and Asians travel within Europe and Asia (Sumant & Shaikh, 2017).

Despite its comparatively expensive treatments, North America dominates the global market in terms of use of advanced technology and expertise in medical knowledge (Sumant & Shaikh, 2017). Mexico is one of the major destinations for medical tourism in the region – after the US and Canada – as it offers a wide number of good quality treatments at considerably lower prices than the US (Sumant & Shaikh, 2017). Key destinations for specific treatments can be examined along with the factors which create room for growth in medical market of given countries (See Table 4).

**Table 4. Medical Tourism Trends and Growth Factors by Treatment Types**

| Treatment Type   | Key Market Trends   | Growth Factors   |
|--|---|--|
| <b>Cardiovascular Treatment</b>  | India, Thailand, Germany, France, Singapore   | <ul style="list-style-type: none"> <li>Developed expertise and specialized treatment techniques emerge as pull factors</li> <li>Closer destinations are preferred</li> <li>Long waiting times for elective surgeries and organ transplant are the main motivators</li> </ul>             |
| <b>Orthopedic Treatment</b>  | Mexico, Brazil, India, Thailand, Singapore, Malaysia, Germany, France, Turkey                     | <ul style="list-style-type: none"> <li>Increase in geriatric population, participation in sports and emergence of minimally invasive surgical techniques increase the demand</li> </ul>  |
| <b>Neurological Treatment</b>  | Germany, France, UK, U.S., India, Singapore   | <ul style="list-style-type: none"> <li>High level of expertise, experienced personnel, advanced equipment with high precision emerge as pull factors</li> <li>Rise in the number of people being diagnosed with neurological ailments increase the demand</li> </ul>                     |
| <b>Cancer Treatment</b>  | Germany, France, India, Thailand, Singapore, U.S., South Africa, Brazil                           | <ul style="list-style-type: none"> <li>Good quality treatment available at affordable prices motivates the patients</li> </ul>   |
| <b>Fertility Treatment</b>   | Barbados, Spain, Hungary, Turkey, Ukraine, South Africa, India, Malaysia                          | <ul style="list-style-type: none"> <li>Advances in technology, increase in buying capacity, and rise in incidence of infertility are the key growth drivers</li> <li>Advances in technology enabling higher success rate in fertility treatment emerge as a motivation factor</li> </ul> |
| <b>Other General Treatments</b><br>(skin repair for burn victims, bariatric surgery, rare disorders, organ transplant) | Germany, France, Turkey, India, Thailand, Singapore, Malaysia, U.S., Mexico, South Africa, Brazil | <ul style="list-style-type: none"> <li>Unavailability of certain medicines, technologies, or experts and long waiting period are the main driving factors</li> <li>Better logistic connectivity and inexpensive treatment options can create further opportunities</li> </ul>            |

Source: Allied Market Research, PwC Analysis

In general outlook, the medical tourism market is projected to grow at a compounded annual growth rate (CAGR) of 14 to 15 percent in terms of market size. The average number of patients received is expected to increase at a pace of 8 to 10 percent annually during 2017-2023 period.<sup>29</sup> Asia-Pacific and Latin America-Middle East-Africa countries (LAMEA) constitute the fastest growing regions in terms of market size, while LAMEA and North America rank as the most promising regions in terms of international patient numbers. Based on the projections conducted for the 2018-2023 period, LAMEA region could be distinguished as the fastest growing region in terms of medical tourist numbers, which is associated with an annual growth rate of 9.8 percent, reaching 9.5 million medical tourists as of 2023.<sup>30</sup> On the other hand, North America is expected to reach about 10 million medical tourists with an annual growth rate of 9.5 percent throughout the projection period (See Figure 6 and Figure 7).

In 2019, North America ranked foremost among its competitors with a market size value of 31.2 billion US dollars and 7.68 million medical tourists (Sumant & Shaikh, 2017). On the other hand, Asia-Pacific was another prominent region in the medical tourism market with a market worth 29.7 million US dollars and 7.6 million medical tourists. Both North America and Asia-Pacific stand out as destinations where medical tourists can access quality products and expertise in healthcare services (See Figure 7 and Figure 8).

In terms of health expenditure, North America remains its position at the best. The region performs way beyond world, OECD countries and European Union averages in both total health expenditure and the health expenditure per capita. (See Figure 12 and Figure 13) High amounts

<sup>29</sup> Allied Market Research, PwC analysis

<sup>30</sup> Allied Market Research, PwC analysis

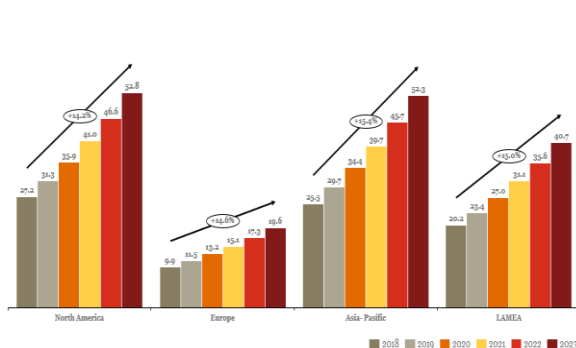
allocated as health expenditure could be one of the reasons that indicate region's high performance in medical tourism market. European Union countries follow North America which explain the high quality of services and developed healthcare infrastructure. On the other hand, Asia and LAMEA regions which are the emerging markets, lag behind the world average and their competitors.

In 2019, North America was the leader in terms of its market size and medical tourist arrivals for all treatment types except for neurological treatment. However, Asia-Pacific and LAMEA regions emerge as the closest competitors of the region with their rapid growth in all treatment types while posing a threat to North America's leadership in the market. Asian medical personnel have gained recognition as experts in the global healthcare provider community, which have helped building trust towards the services they have provided in the region (Sumant & Shaikh, 2017). The Asia Pacific region seems to have become a new leader in the market with projected growth rates of 16 percent in cardiovascular treatment, 15.4 percent in cancer treatment and 15.5 percent in neurological treatment. Foreign patient growth trends in the Asia-Pacific region illustrate that the region is improving its capacity related to neurological, cancer and fertility treatments, which affects the destination preferences of medical tourists (See Figure 8 and Figure 9 and Figure 10 and Figure 11).

On the other hand, LAMEA region depicts itself as a rising star in the medical tourism market. South Africa is a key destination for most African medical tourists who can afford international travel (Sumant & Shaikh, 2017). Moreover, the United Arab Emirates (UAE) and Jordan offers medical services to patients from neighboring Middle Eastern and North African countries (Sumant & Shaikh, 2017).

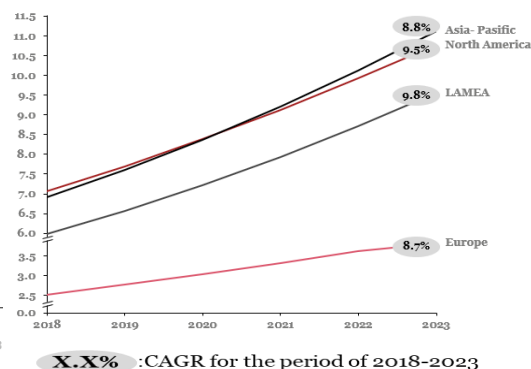
Despite its small share of the medical tourism market and number of international tourists, Europe has a well-developed healthcare infrastructure (See Figure 14 and Figure 15). Europe is a prominent destination for medical tourists for treatments of cardiovascular and neurological diseases (Sumant & Shaikh, 2017), as a result of its high levels of expertise, experienced personnel and advanced equipment. Cancer patients also prefer Europe for the living conditions provided during the long healing processes. France and Germany, in particular, offer specialized medical services assisted by advanced technology and attract numerous patients seeking heart bypass surgeries, valve replacement, and brain and spinal surgeries (Sumant & Shaikh, 2017). In this regard, Turkey is another highlighted country and is preferred by medical tourists especially for fertility treatments and other general treatments (Sumant & Shaikh, 2017).

**Figure 6. Medical Tourism Regional Market Size (2018-2023, USD billion)**



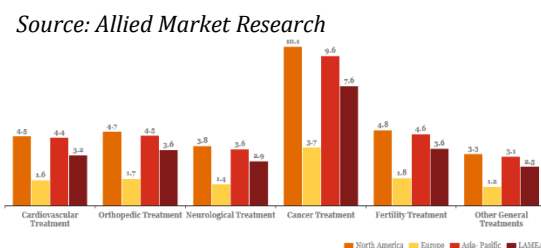
Source: Allied Market Research

**Figure 7. Medical Tourism Regional Market Size by Number of Patients (2018-2023, in millions)**



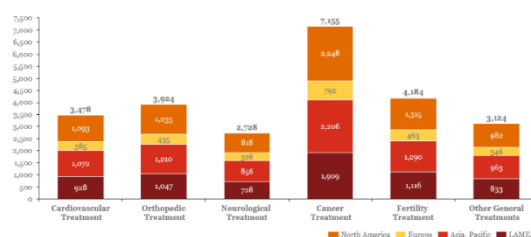
Source: Allied Market Research

**Figure 8. Medical Tourism Regional Market Size by Treatment Type (2019, USD billion)**



Source: Allied Market Research

**Figure 9. Medical Tourism Regional Market Size by Treatment Type (2019, number of patients in thousands)**



Source: Allied Market Research

**Figure 10. Market Growth Trends by Treatment Type (CAGR of 2019-2023)**

|                          | North America | Europe | Asia-Pacific | LAMEA |
|--------------------------|---------------|--------|--------------|-------|
| Cardiovascular Treatment | 14.1%         | 14.4%  | 16%          | 14.1% |
| Orthopedic Treatment     | 13.8%         | 14.2%  | 14.9%        | 14.8% |
| Neurological Treatment   | 14.4%         | 14.8%  | 15.5%        | 15.4% |
| Cancer Treatment         | 14.3%         | 14.7%  | 15.4%        | 15.2% |
| Fertility Treatment      | 14.0%         | 14.4%  | 15.1%        | 15%   |
| Other General Treatments | 12.5%         | 12.8%  | 13.5%        | 13.4% |

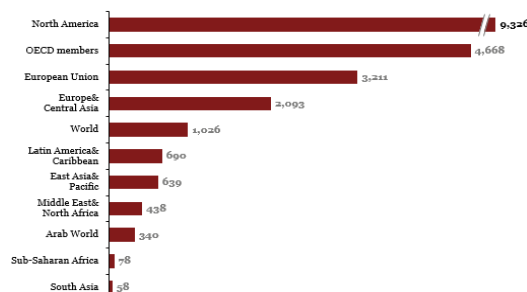
Source: Allied Market Research, PwC Analysis

**Figure 11. Foreign Patient Growth Trends by Treatment Type (CAGR of 2019-2023)**

|                          | North America | Europe | Asia-Pacific | LAMEA |
|--------------------------|---------------|--------|--------------|-------|
| Cardiovascular Treatment | 8.9%          | 9.3%   | 10%          | 9.9%  |
| Orthopedic Treatment     | 8.7%          | 9%     | 9.7%         | 9.6%  |
| Neurological Treatment   | 8.1%          | 11.2%  | 10.7%        | 10.2% |
| Cancer Treatment         | 9.2%          | 9.6%   | 10.3%        | 10.2% |
| Fertility Treatment      | 9%            | 9.4%   | 10.1%        | 9.9%  |
| Other General Treatments | 7.7%          | 8%     | 8.7%         | 8.6%  |

Source: Allied Market Research, PwC Analysis

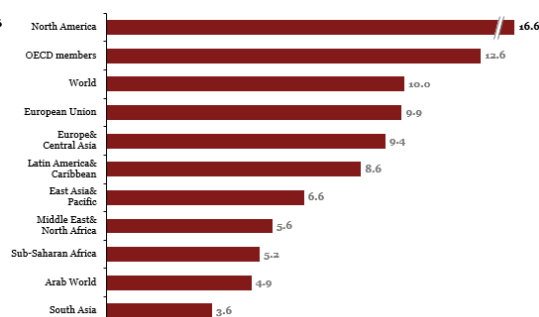
**Figure 12. Current health expenditure per capita\* (2016, USD)**



\*Estimates of current health expenditures include healthcare goods and services consumed during each year.

Source: World Bank

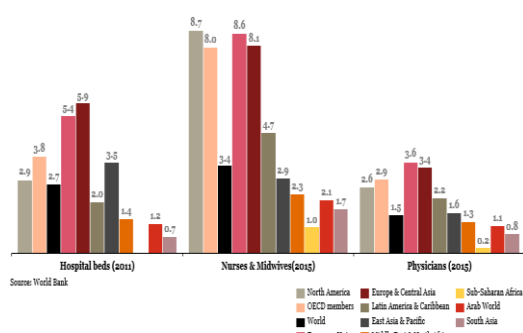
**Figure 13. Current health expenditure\* (2016, % of GDP)**



\*It includes healthcare goods and services consumed during each year. This indicator does not include capital health expenditures such as buildings, machinery, IT and stocks of vaccines for emergency or outbreaks.

Source: World Bank

**Figure 14. Regional Healthcare Infrastructure Comparison\* (per 1,000 people)**



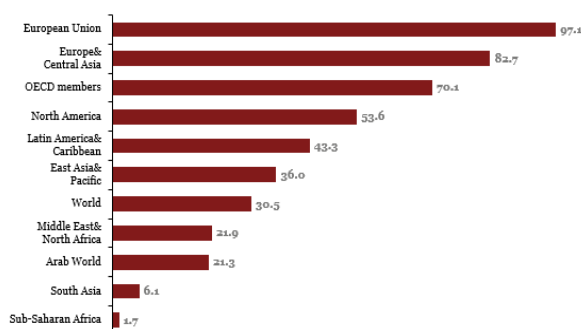
\***Hospital beds** include inpatient beds available in public, private, general, and specialized hospitals and rehabilitation centers. In most cases beds for both acute and chronic care are included.

\***Nurses and midwives** include professional nurses, professional midwives, auxiliary nurses, auxiliary midwives, enrolled nurses, enrolled midwives and other associated personnel, such as dental nurses and primary care nurses.

\***Physicians** include generalist and specialist medical practitioners.

Source: World Bank

**Figure 15. Specialist surgical workforce\* (2015, per 100,000 population)**



\***Specialist surgical workforce** is the number of specialist surgical, anesthetic, and obstetric (SAO) providers who are working in each country per 100,000 population.

Source: World Bank

### 1.2.2.1 Comparison of OIC Member Countries

OIC member countries<sup>31</sup> are dispersed over a large geography, spread out on four continents, extending from Albania (Europe) in the North to Mozambique (Africa) in the South, and from Guyana (Latin America) in the West to Indonesia (Asia) in the East. OIC countries account for one sixth of the world's total surface area and more than one fifth of the total world population (SESRIC, 2014). The mixed nature of the OIC countries reflects high levels of heterogeneity and divergence in their economic structures. The degree of heterogeneity in the macroeconomic and development profiles of OIC member countries is also indicative of their divergent performance levels in healthcare (SESRIC , OIC , & Islamic Development Bank, OIC Strategic Health Programme of Action 2014-2023 (OIC-SHPA), 2014).

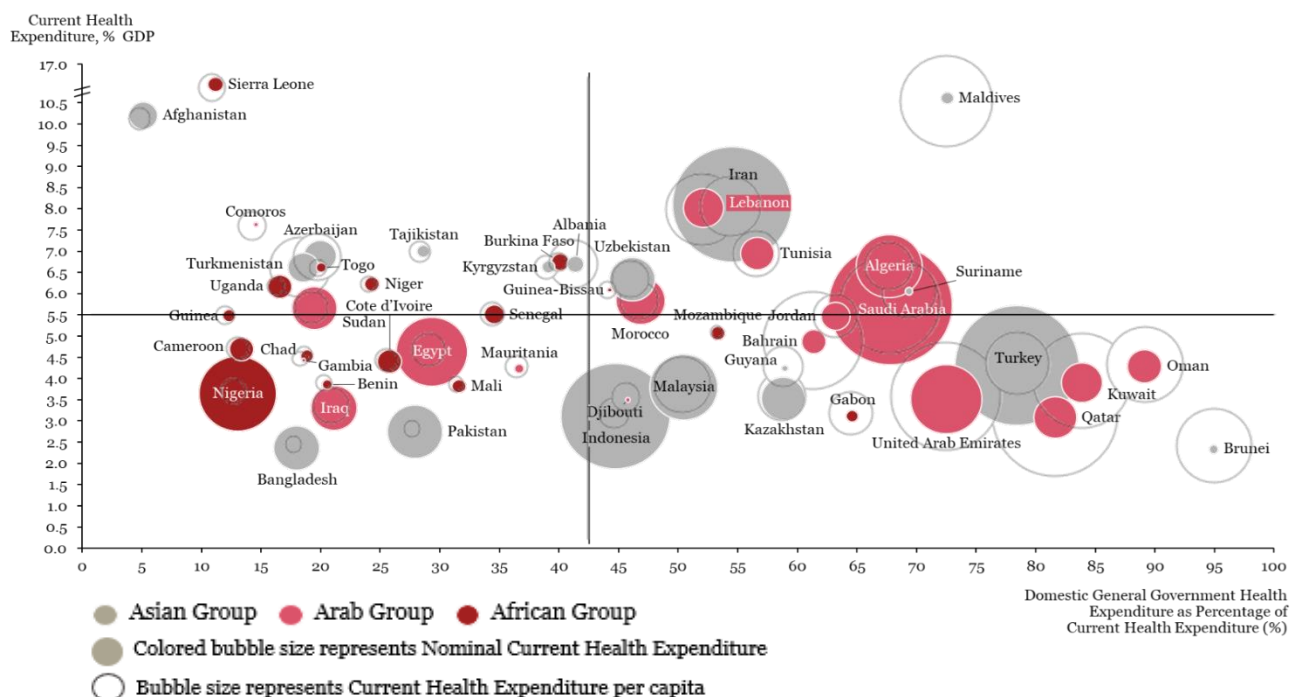
OIC member countries allocate, on average, 5.5 percent of their GDP to health, with health expenditures split equally amongst public and private sources. Domestic general government health expenditure composes 42 percent of the current health expenditure (See Figure 16). Additionally, public financing covered 52 percent of total health expenditures<sup>32</sup> in OIC countries compared to 74.2 percent in the world and 80.2 percent in developed countries (SESRIC & OIC, OIC Health Report, 2019). In general, the coverage of prepayment schemes, both public and private, remained very limited in OIC countries. Therefore, out-of-pocket health spending remains the most widely used method for health financing in the region. 37.8 percent of total health expenditures were financed through out-of-pocket payments in these countries which is higher when compared to world (18.6%) and developed countries (13.5%) averages (SESRIC & OIC, OIC Health Report, 2019).

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<sup>31</sup> List of OIC Member countries can be found in Annex 1

<sup>32</sup> Health Expenditure is defined as all expenditures made for prevention, improvement, care, nutrition and emergency programs designed to promote and prevent health status. Total Health Expenditure is the sum of Current Health Expenditure and Investment Expenditure.

**Figure 16. Comparison of OIC Countries in terms of Health Expenditure, 2016**



Source: OIC database, PwC Analysis

A closer examination of current healthcare expenditures by country reveals that in 2016, Iran, Indonesia, Turkey and Malaysia come to the forefront in Asian group of OIC countries while Saudi Arabia, United Arab Emirates, Algeria, Egypt could be distinguished amongst Arab countries with their health expenditures being remarkably above the OIC average. Amongst the countries in Africa, Nigeria stands out in terms of their health expenditures. Iran, Lebanon, Tunisia, Algeria, Uzbekistan and Morocco are also associated with both high healthcare expenditure levels and GDP shares – which are above regional averages – clearly demonstrating the importance accorded to the healthcare sector as a key contributor to their national economies. (See Figure 16).

On the other hand, size of the population is an important indicator that is correlated with nominal healthcare expenditures of the countries. Therefore, in Figure 16 per capita health expenditure of highly populated countries displays a shrink in the bubble size compared to their colored bubble size. For instance, in Asian group Turkey, Indonesia, Pakistan and Bangladesh have smaller per capita health expenditure when compared to their nominal health expenditure amounts. Moreover, same trend is displayed by Iran, Saudi Arabia, Egypt and Algeria from Arab group as well as Nigeria from African group.

Conversely, per capita health expenditure is bigger in some OIC member countries in comparison to their nominal current expenditure performances. Arab group countries such as Oman, Qatar, Kuwait and United Arab Emirates accompanied with Maldives and Brunei from Asian group illustrate a higher performance in terms of per capita health expenditure.

From the perspective of the government share in healthcare expenditure, the Asian and Arab group of countries position themselves dominantly above the OIC average, which illustrates government efforts to develop health infrastructure and service quality. More than 70 percent of current health expenditure is covered by government health expenditure in Oman, Kuwait, Qatar, Turkey and United Arab Emirates. Moreover, government health expenditure composes 40 to 70 percent of current health expenditure in Saudi Arabia, Algeria, Jordan, Kazakhstan, Tunisia, Iran, Lebanon, Malaysia and Indonesia. Additionally, Gabon, Mozambique and Brunei, as members of the African group of countries, are positioned as countries where the government's share in total health expenditure is above the OIC average (See Figure 16).

In Asia and the Arab region, Turkey and Jordan, respectively, are amongst the largest countries in terms of total inbound medical tourism spending (WTTC, 2019). This finding underlines the fact that medical tourism is associated with benefits not only for developed countries but also for emerging and developing economies across continents. For instance, Turkey's strong performance has been supported by sustained government investment into the healthcare sector, good quality of medical services, well-educated personnel, and company level marketing activities.<sup>33</sup>

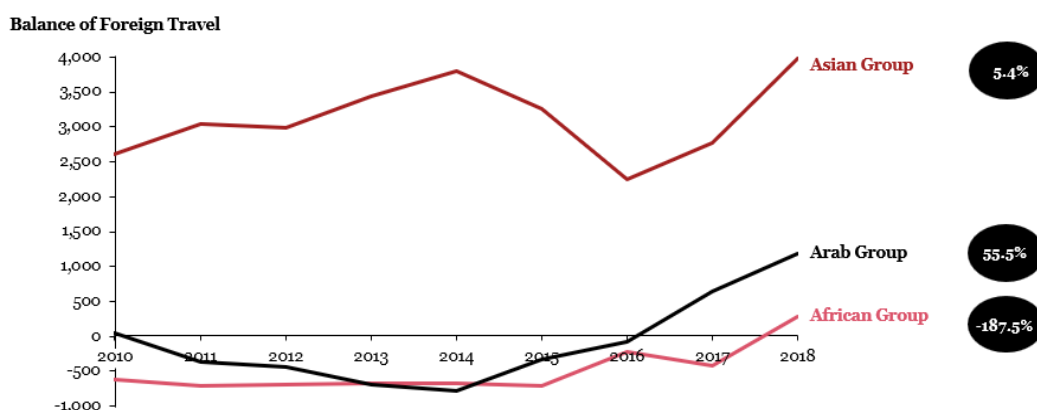
Since medical tourism is an inter-related concept that is entailed with both health infrastructure and provision as well as tourism performance of the countries, it is important to monitor characteristics of tourism industry in OIC regions. Countries who had realized their tourism potential to a large extent have also developed their tourism infrastructure regarding lodging facilities, inter-city transportation and international connectivity services. Therefore, a country who have met its tourism potential can facilitate these attributes to promote medical tourism with targeted marketing and advertisement activities.

According to regional balance of foreign travel data, Asian region demonstrates itself as an attractive touristic region by providing surplus while Arab and African group display foreign travel deficit. In line with this data, in 2018, Asian group had the highest number of tourist arrival among other OIC regions by attracting 2.8 million intra-OIC and 127.1 million tourists in total. On the other side, the share of intra-OIC travel in the overall tourist number is around 50 percent in Arab region, which demonstrate the fact that Arab region is highly dependent on intra-OIC travel. (See Figure 17 and Figure 18) Considering the fact that Arab region is highly dependent on intra-OIC travel, cooperation in between OIC member countries and conducting targeted medical tourism product and service offerings according to the preferences of the tourists can foster inbound medical tourism performances of Arab region OIC countries.

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<sup>33</sup> Republic of Turkey, Ministry of Health

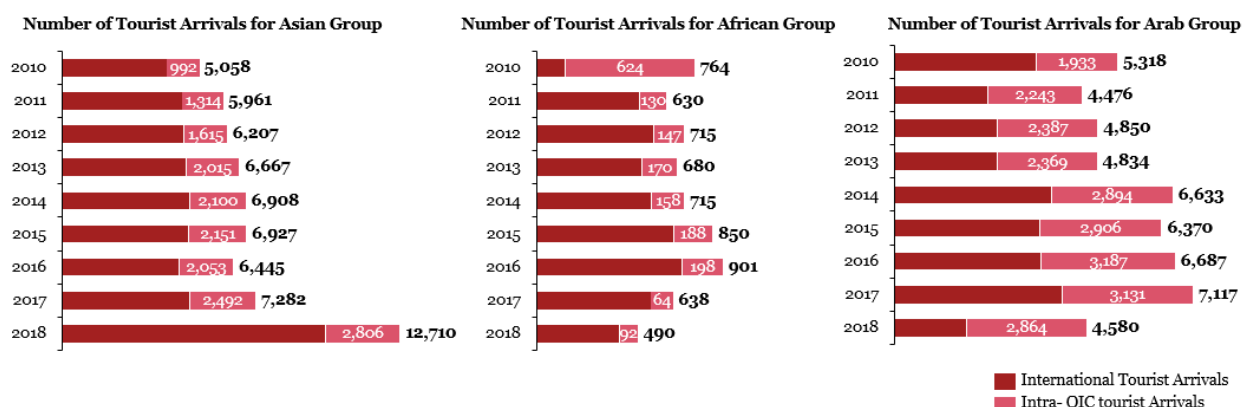
**Figure 17. OIC Countries Balance of Foreign Travel (in million USD)**



\*CAGR of African Group is calculated based on the Balance of Foreign Travel data available for 2011-2018.

Source: OIC database

**Figure 18. OIC Countries Regional Number of Tourist Arrivals (in thousands, 2016)**



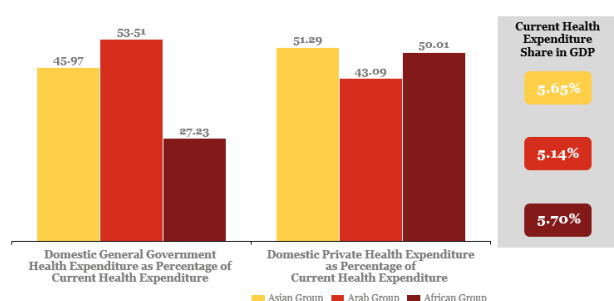
Source: OIC database

Moreover, the Asian and Arab regions have met the minimum density threshold that is determined by the WHO as 22.8 health personnel per 10,000 population (doctors, nurses and midwives)<sup>34</sup> that is deemed necessary to deliver essential health services. Access to primary healthcare services is still a serious challenge in many OIC countries, especially in the African group of countries (SESRIC & OIC, OIC Health Report, 2019). Even though the African group's infrastructure – in terms of number of doctors, nurse and midwives – has been increasing during 2010-2015, the group is still way behind meeting the minimum density threshold of the WHO (See Figure 20 and Figure 21).

<sup>34</sup> WHO identified in 2006 a minimum density threshold of 22.8 skilled health professionals/10,000 people to provide the most basic health coverage. ([https://www.who.int/workforcealliance/media/key\\_messages\\_2014.pdf](https://www.who.int/workforcealliance/media/key_messages_2014.pdf))

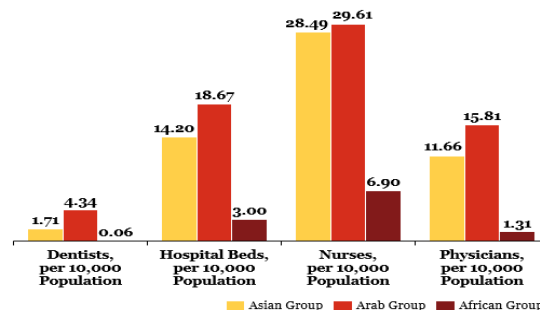
The Sustainable Development Goals represent “Global Goals” with 169 targets. The third target of the International Health Regulation Goal is to “strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks”. This regulation includes 13 indicators which are: national legislation, policy and financing, coordination and national focal point communications, surveillance, response, preparedness, risk communication, human resources, laboratory, points of entry, zoonotic events, food safety, chemical events, radio nuclear emergencies. None of the OIC regions have shown continuous progress regarding the implementation of International Health Regulations; however, it can be asserted that Asian and Arab regions enforce regulations more effectively. On the other side, the African group has achieved a moderate amount of success in implementation of these regulations despite its lack of infrastructural capacity and limited health expenditure amount (See Figure 22).

**Figure 19. OIC Countries Health Expenditure Data (2016)**



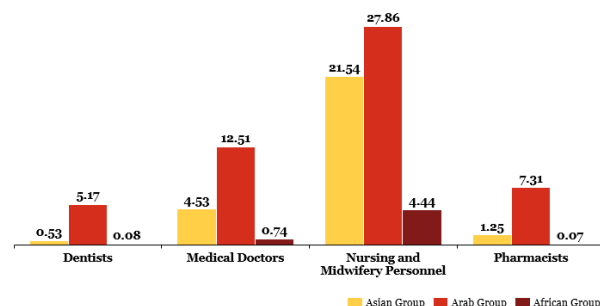
Source: OIC database

**Figure 20. OIC Countries Infrastructure Related Indicators (2015)**



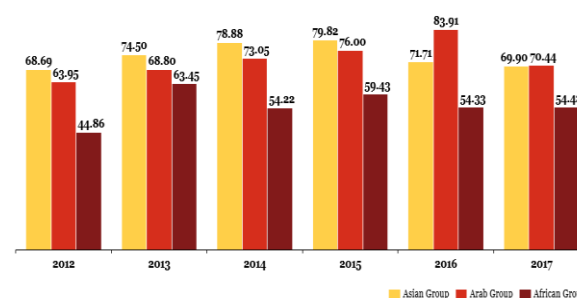
Source: OIC database

**Figure 21. OIC Countries Health Worker Density (per 10,000 population, 2017)**



Source: OIC database

**Figure 22. Average of 13 (IHR) Core Capacities**



Source: OIC database

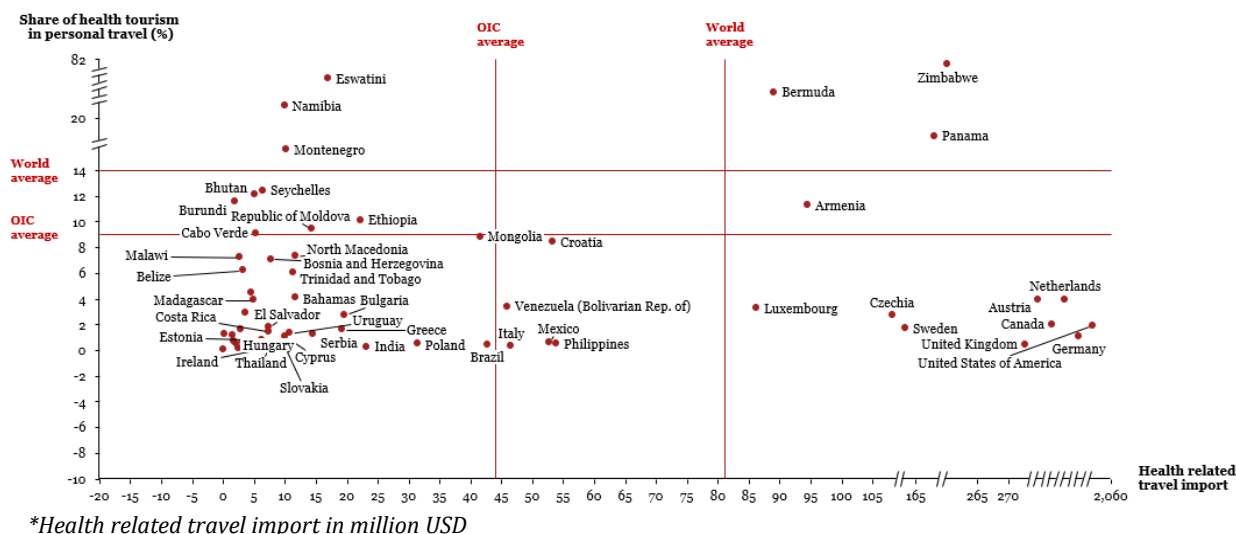
### **1.2.3 Medical Tourism Outlook: Demand Side**

As the number of patients who travel for healthcare purposes is continuously increasing, the selection of destination countries is shifting as well. Accordingly, what citizens might be looking for when they seek medical treatment abroad is likely to fluctuate based on healthcare coverage, financing structures, and medical tourism regulations that prevail within their countries of origin. In such a growing and promising market, destination (supply) countries are seeking ways to attract more tourists while source (demand) countries are looking for ways to reduce the number of citizens traveling to other countries for treatment. Obtaining a better understanding of this relationship produces alternative ways of thinking on both the challenges and opportunities of medical tourism.

The attributes of the healthcare systems and regulations of countries serve to promote or hinder medical tourism. As the medical tourism market continues to grow and diversify, domestic healthcare systems increasingly perceive the pressure of limited resources. Depending on the jurisdiction, efforts to reduce the demand for medical tourism could include a range of options such as investing in resources targeted at reducing domestic wait times, expanding public health insurance, limiting public coverage for follow-up care needs, or educating the public about the potential risks associated with medical tourism (Béland & Zarzeczny, 2018).

In accordance with the analysis based on health-related travel import values (See Figure 23), developed countries such as the United States, Germany, Austria, Netherlands, Canada and the United Kingdom are associated with the highest demand for medical tourism while the import values for most of the OIC countries fall behind the world average (See Figure 23). Although having developed health systems and infrastructure that function as pull factors for the developed countries, the citizens of these countries seek medical treatment abroad due to a wide number of motivations such as cost, waiting times, and insurance coverage. For instance, in the US the lack of healthcare coverage is likely to be a key factor driving the demand for medical tourism (Béland & Zarzeczny, 2018). Conversely, in Canada the key motivations for medical tourism underlined by citizens are the desire to access healthcare faster, to reduce out of pocket costs for treatments not covered by provincial health insurance, and to access treatments that are not available in Canada (Béland & Zarzeczny, 2018). In other terms, various types of healthcare systems are likely to produce specific market configurations for medical tourism.

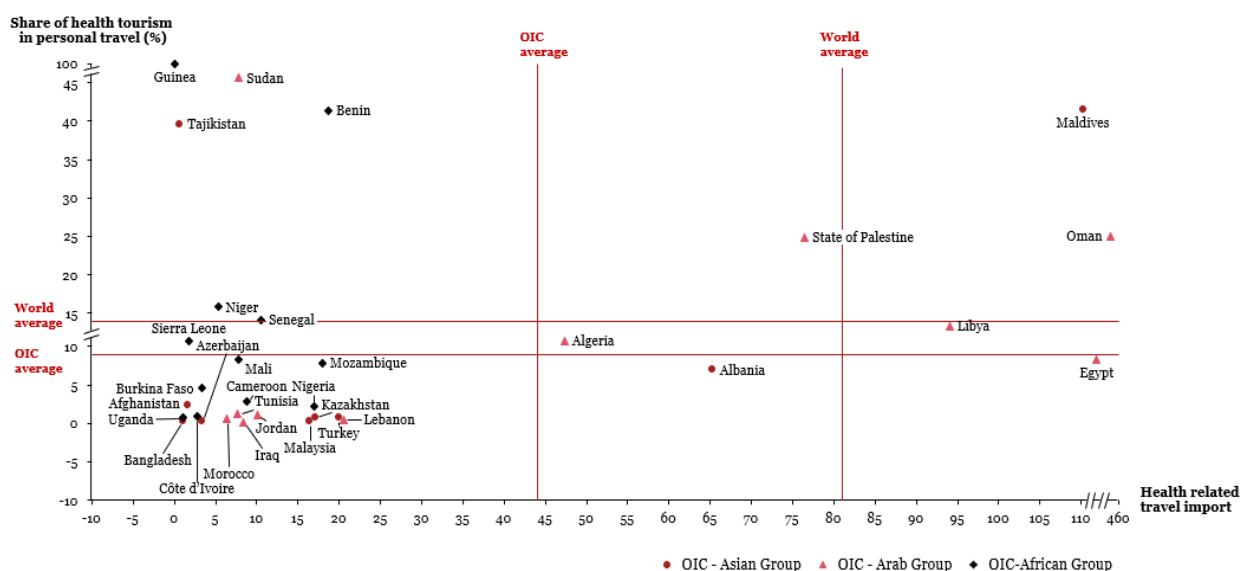
**Figure 23. Health Related Travel Demand of the Non-OIC Counties (2016)**



Source: UNCTAD

In terms of the two indicators, which are health-related travel import and share of health tourism in personal travel, that evaluate the demand for medical tourism; Bermuda, Panama and Zimbabwe come to the forefront with their values above the world average (See Figure 23). High health related import values followed by a high share in personnel travel conveys the message that these countries are dependent on outsourcing the healthcare needs of the citizens via medical tourism. The reasons fostering medical tourism in these countries tend to involve underdeveloped healthcare infrastructure, limited access to healthcare services or the unavailability of certain treatment types. According to the Zimbabwe Medical Association, the motivations behind citizens seeking treatment abroad is the lack of healthcare capacity in the country. In the case of Panama, it is asserted that high competition in the region in terms of both quality and price, accompanied by established medical tourism destinations, allure citizens to seek higher quality and cheaper treatment alternatives (Health-Tourism, 2020).

**Figure 24. Health Related Travel Demand of the OIC Countries (2016)**



\*Health related travel import in million USD

Source: UNCTAD

Among OIC countries, the Arab group – especially Egypt, Oman, and Libya – have high health related travel import values that are both above OIC and world averages (See Figure 24). Egypt and Libya perform close to the average of the OIC member countries regarding share of health tourism in personal travel. Countries known as emerging medical tourism destinations such as Turkey and Malaysia are positioned below the OIC average in terms of medical tourism imports which is entailed with improved health quality and infrastructure initiatives of these countries.

In terms of the share of health tourism imports in personal travel imports, Oman (at 24%) and Maldives (at 41%) stand out, marked by high medical tourism imports, in turn indicating them as potential targets for medical tourists (See Figure 24). Although Benin, Sudan, Tajikistan and Guinea have lower medical tourism import levels, the share of health tourism in personal travel is above 40 percent in these countries, which implies the dramatic situation in terms of the dense medical tourism demand (See Figure 24). The reason for higher medical tourism imports could be stated as insufficient capacity, underdeveloped health infrastructure and low health expenditure values, which subsequently result in citizens seeking treatment abroad.

For instance, Oman has one of the highest levels of medical tourism imports among OIC member countries accompanied by an above-average share in personal travel (See Figure 24). The significant amount of demand is inter-related with Oman's health expenditures, which are lower than both OIC, Arab group and world averages. The country's infrastructure indicators are also close to or below the indicated averages. Outgoing medical tourism spending of the country accounts for 21 percent of the travel related import (WTTC, 2019). This is the result of reported long delays in public domestic healthcare facilities, and high costs associated with private medical services (WTTC, 2019). The reasons behind Omanis' preference to seek medical care outside of the country range from unidentified diagnosis and ineffective treatments to long delays, fewer competitive private facilities, and high cost of private medical services (Al-Hashar & Al-Zakwani, 2018). Additionally, Omanis are choosing foreign countries for the leisure facilities that offer healthcare treatments as well.

On the other hand, Maldivians Traveling Abroad (MTA) 2013 survey conducted by the Central Bank of Maldives showed that one out of two Maldivians traveled overseas for various purposes in 2013 and spent 70 million US dollars on medical travel alone (Suzana, Mills, Tangcharoensathien, & Chongsuvivatwong, 2015). Indian and Sri Lankan hospitals were the major destinations for Maldivians. Privately funded Maldivian patients stated that they were in search of better-quality in healthcare, while government subsidized patients went abroad mainly because the required treatment was not available in the country (Suzana, Mills, Tangcharoensathien, & Chongsuvivatwong, 2015). Increased investment by the government, coupled with additional private or foreign investments to build more capacity in the domestic health infrastructure would help to reduce the outflow of patients.

## **2 Comparative Analysis for Medical Tourism**

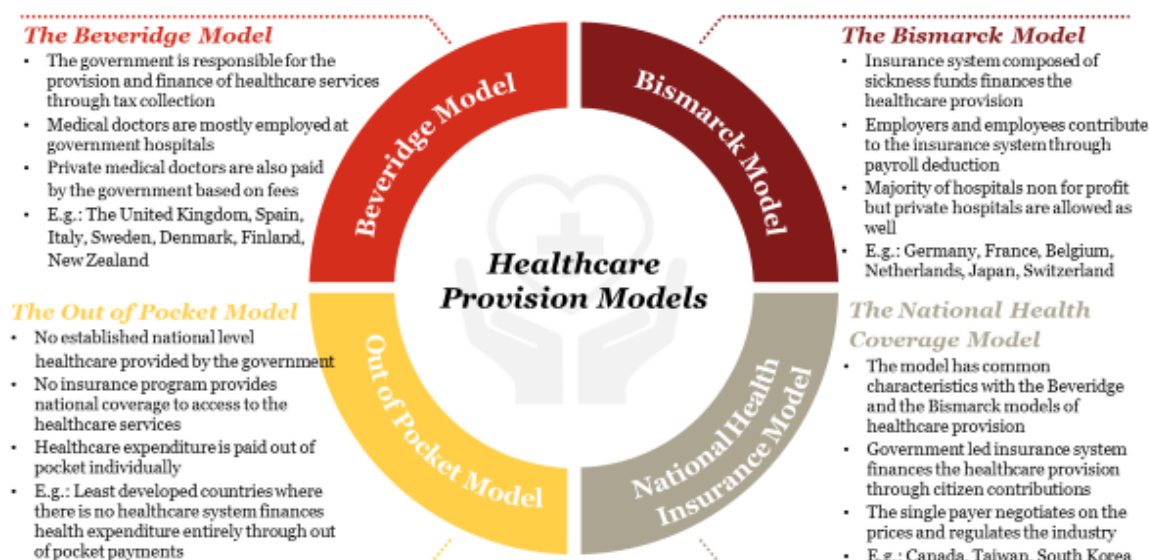
Medical tourism is strongly linked with the health infrastructure of countries. Countries where there is an established health infrastructure have the ability to serve as medical tourism destinations. If the medical needs of a society are met by the hospitals and doctors of the country, the country does not necessitate sending patients to other destinations as well. The choice of travel for medical purposes becomes individual rather than a necessity at governmental level. At this point, individuals evaluate destinations according to their quality and/or affordability for medical services. On the other hand, the non-self-sufficient countries in terms of health infrastructure do not have the technical and/or infrastructural resources to cure their citizens, they tend to outsource their medical needs. Hence, the level of health infrastructure reckons as the fundamental component of medical tourism. The indicators such as health provision model, numbers of doctors and specialists, health expenditures are elaborated to demonstrate the must-haves in a country of medical tourism. This is the reason why this report examines medical tourism from the point of view of health infrastructure.

Considering the fact that not all countries have a well-functioning healthcare provision system, the medical tourism does not take place in everywhere. Countries with capabilities as regards healthcare provision and medical services allocate some of their sources for medical tourism in order to develop their expertise and skills while making profit out of it. Medical tourism potential of a country is assessed by using a framework composed of 5 elements that are infrastructure and provision model, financing mechanisms, marketing strategies, management and organization structure followed by legislative arrangement. In the next section, these elements are elaborated and exemplified according to country-specific practices for the benchmark countries.

## **2.1 Infrastructure and Service Provision Model**

Healthcare provision does not only depend on health infrastructure, but it also relates with the issued country's economic status, educational infrastructure and governance model. It is possible to affirm that not all countries have an established healthcare system due to shortages in one or a combination of these aspects. The countries having a healthcare provision model within the borders have adopted different approaches depending on the characteristics of their society, their needs and their sources. There are theoretically four models which can be taken reference when establishing the healthcare provision system in a country. In practice, the four model can show differences from the theoretic framework; however, most of the countries use these models as a basis to build up their own customized healthcare provision models. The essentials of the four healthcare models can be examined on the figure below (See Figure 25).

**Figure 25. The Four Models of Healthcare Provision**



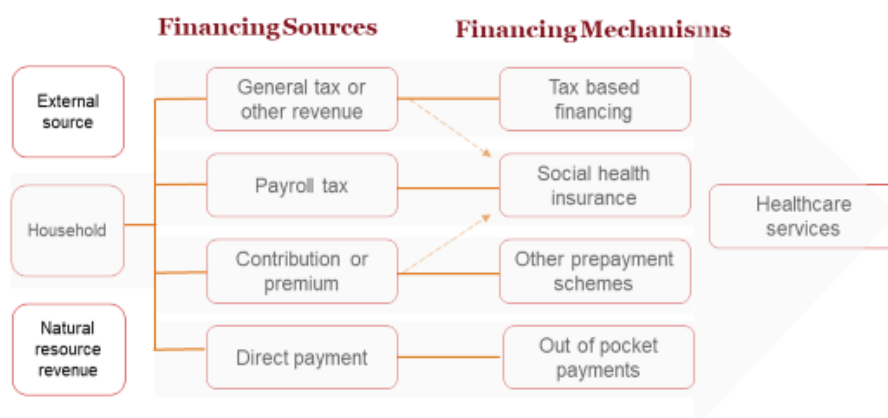
Source: Princeton University Public Health Review, PwC Analysis

## 2.2 Financing Mechanism

There is no direct financing mechanism for health tourism industry. On one hand, medical tourism finance mechanism can be observed at hospitals and health insurance companies. However, it is not possible to define a universal system as each company will follow their own strategy. On the other hand, there is no specific financing scheme for medical tourism at government level. Countries treat their citizens within their borders if health infrastructure of the country allows it. If it does not, governments allocate budget for medical tourism to send patients abroad for the treatments that they cannot provide with their own resources. This way, domestic healthcare infrastructure and financing indirectly determines the medical tourism financing scheme of countries.

Implementation of a healthcare system in a country requires a sustainable financing mechanism. The mechanism may have different types of sources in order to maintain the functioning of the health provision model. However, most of the countries with an established healthcare provision model constitutes a system based on household contributions. The contribution of households into the system also demonstrates varieties from one country to another according to the healthcare provision model that the country has adopted. The most frequently used healthcare financing schemes are provided in the figure below (See Figure 26).

**Figure 26. Financing Mechanisms**



Source: WHO, PwC Analysis

In order to concretize the health provision models and financing schemes of countries, the case countries selected within the scope of this report have been used for cross comparison in the matrix below (See Table 5). The matrix proves that countries, in implementation, use a combination of the basic models of healthcare provision and a set of financing tools in order to sustain the healthcare system.

**Table 5. Matrix of Case Countries for Health Provision Models and Financing Schemes**

|                   |               | Health Provision Models |                |                   |               | Financing Mechanisms |      |                          |               |
|-------------------|---------------|-------------------------|----------------|-------------------|---------------|----------------------|------|--------------------------|---------------|
|                   |               | Beveridge Model         | Bismarck Model | National Coverage | Out of Pocket | Tax based            | SHI* | Other Prepayment Schemes | Out of Pocket |
| Non-OIC countries | Germany       |                         | ✓              |                   |               | ✓                    | ✓    |                          | ✓             |
|                   | India         |                         |                | ✓                 | ✓             |                      |      | ✓                        | ✓             |
|                   | United States |                         |                |                   | ✓             | ✓                    |      |                          | ✓             |
| OIC countries     | Azerbaijan    | ✓                       |                |                   |               | ✓                    |      |                          | ✓             |
|                   | Jordan        |                         |                |                   | ✓             | ✓                    |      | ✓                        | ✓             |
|                   | Malaysia      | ✓                       |                |                   | ✓             | ✓                    | ✓    | ✓                        | ✓             |
|                   | Turkey        |                         |                | ✓                 |               | ✓                    | ✓    |                          | ✓             |

\*SHI: Statutory Health Insurance

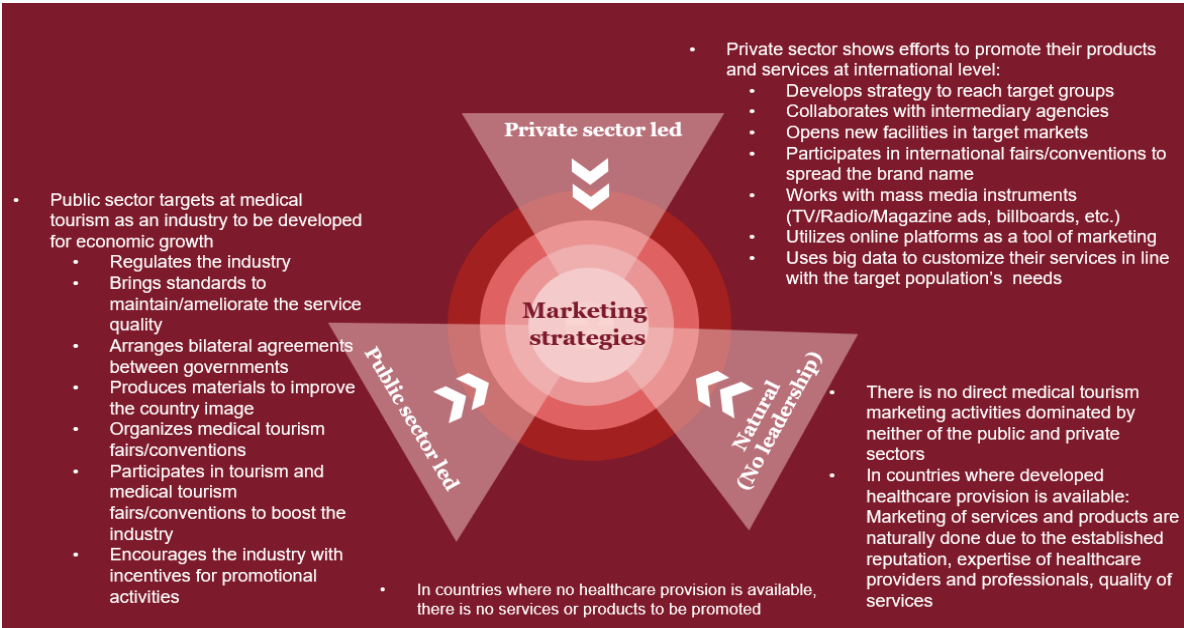
Source: PwC Analysis

## 2.3 Marketing Strategies

Medical tourism is not conceived as the same way in all countries across the globe. While some countries recognize it as a growing industry to be promoted in order to develop its capacity,

some other may not give the same importance to it either because they do not have the capability in the sector or simply they do not see the sector as an industry. Among those which consider medical tourism as an industry to be promoted, a set of marketing strategies is implemented in guidance of public sector, private sector or both as it is mapped out in the figure below (See Table 6).

**Table 6. Common Marketing Strategies**



Source: PwC Analysis

Among the countries that this report analyzes in dept, it is discovered that most of the case countries uses marketing strategies in combination. While in Azerbaijan the domination of public sector is felt, in Germany or in the US it is possible to say that there is no marketing strategy introduced at government level. However, countries such as Turkey, India, Malaysia and Jordan where medical tourism is appreciated as a rising component of the economy, public and private sectors' engagement in promotional activities is observed (See Table 7).

**Table 7. Matrix of Case Countries for Marketing Strategies**

|                   |               | Marketing Strategies        |                              |                   |                               |
|-------------------|---------------|-----------------------------|------------------------------|-------------------|-------------------------------|
|                   |               | Public Sector Led Marketing | Private Sector Led Marketing | Natural Marketing | Public-Private Mixed Approach |
| Non-OIC countries | Germany       |                             |                              | √                 |                               |
|                   | India         |                             |                              |                   | √                             |
|                   | United States |                             | √                            | √                 |                               |
| OIC countries     | Azerbaijan    | √                           |                              |                   |                               |
|                   | Jordan        |                             |                              |                   | √                             |
|                   | Malaysia      |                             |                              |                   | √                             |
|                   | Turkey        |                             |                              |                   | √                             |

Source: PwC Analysis

## 2.4 Management and Organization Structure (Stakeholders)

Depending on how countries approach to medical tourism industry shapes the management and organization structure of the stakeholders engaged in the sector. The stakeholders can be categorized in four; mainly as the public sector, private sector, non-governmental sector and population (e.g. patients). In the table below (See Table 8) fundamental actors of the industry can be found. Also, main players observed in the case countries can be examined in the following table (See Table 9).

**Table 8. Main Stakeholders in Medical Tourism Industry**

|  |   |
|--|---|
| <b>Ministry of Health</b> and its related bodies are responsible for regulation and maintenance of standards in the healthcare sector  | <b>Private hospitals and clinics</b> are more involved in the medical tourism activities compared to public hospitals                                   |
| <b>Ministry of Tourism</b> and its related bodies are responsible for regulation in collaboration with Ministry of Health where medical tourism is a strategic sector                      | <b>Intermediary agencies</b> assist patients to find the best medical service provider to meet their needs  |
| <b>Medical Tourism Agency</b> is responsible for the coordination between the ministries and the public sector stakeholders while promoting medical tourism industry of the issued country | <b>Tourism related actors</b> such as hotels, travel agencies, transportation companies, etc. play role in development of the medical tourism ecosystem |
| <b>Individuals</b> who prefer to travel for their medical needs by their own decision  | <b>Associations</b> to introduce international standards for healthcare services at hospitals welcoming international patients                          |
| <b>Individuals</b> who are encouraged to travel to a destination by the advice of their family and/or friends  | <b>Associations</b> to ensure patient rights, also take role in enforcing service quality   |
| <b>Individuals</b> who are referred by their own medical doctors to receive healthcare in another destination  | <b>Associations</b> to promote medical tourism activities and institutions of the issued country as well as to cultivate development of the industry    |

Source: PwC Analysis

**Table 9. Matrix for Main Stakeholders in Case Countries**

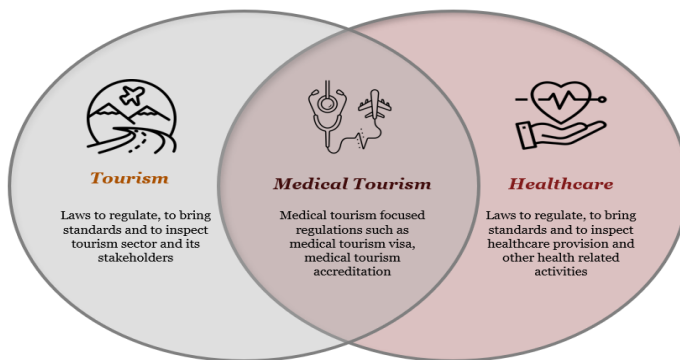
|                   |               | Government Agencies |                     |                        | Private Sector    |                       |                        | NGOs         | Patients    |
|-------------------|---------------|---------------------|---------------------|------------------------|-------------------|-----------------------|------------------------|--------------|-------------|
|                   |               | Ministry of Health  | Ministry of Tourism | Medical Tourism Agency | Private Hospitals | Intermediary Agencies | Tourism related actors | Associations | Individuals |
| Non-OIC countries | Germany       |                     |                     |                        |                   | ✓                     | ✓                      | ✓            | ✓           |
|                   | India         | ✓                   |                     |                        | ✓                 | ✓                     | ✓                      | ✓            | ✓           |
|                   | United States |                     |                     |                        | ✓                 |                       |                        |              |             |
| OIC countries     | Azerbaijan    | ✓                   |                     |                        |                   |                       |                        |              | ✓           |
|                   | Jordan        | ✓                   | ✓                   | ✓                      | ✓                 |                       |                        | ✓            | ✓           |
|                   | Malaysia      | ✓                   |                     |                        | ✓                 | ✓                     | ✓                      | ✓            | ✓           |
|                   | Turkey        | ✓                   | ✓                   | ✓                      | ✓                 | ✓                     | ✓                      | ✓            | ✓           |

Source: PwC Analysis

## 2.5 Legislative Structure

Regardless of the governance model or economic status, all countries enforce a set of law in order to maintain the ordinance and avoid chaos among society. In addition to define penal codes and civil rights, the main economic activity areas and government responsibilities are also usually covered in all countries in line with their governance model. From this perspective, as regards medical tourism, it is possible to affirm that not all countries are expected to have specific codes on the industry. However, it is common to have laws which regulate health sector and tourism sectors separately. Therefore, legislative structure for medical tourism may be described in overall as it is affected by the combination of laws on health and tourism related activities if there is no specific medical tourism related laws or regulations are in force in a country (See Figure 27).

**Figure 27. Legislation Structure for Medical Tourism**



Source: PwC Analysis

Countries embracing a defined medical tourism approach construct legislative framework for the related activities as well. Within the scope of this specific framework, besides healthcare regulations and tourism pillar of medical tourism which are almost present in all countries, implementations such as medical tourism visa and medical tourism accreditation attributed to eligible healthcare providers and intermediary agencies are observed among the countries with a medical tourism approach. In the selected countries of this report, it is seen that countries where government stakes are also visible in the medical tourism activities, regulations specific to the industry have also been put in place in order to sustain and promote the sectoral activities (See Table 10).

Table 10. Matrix for Legislative Structure

|                   |               | Medical Tourism Visa | Medical Tourism Accreditation |
|-------------------|---------------|----------------------|-------------------------------|
| Non-OIC countries | Germany       |                      |                               |
|                   | India         | √                    |                               |
|                   | United States |                      |                               |
| OIC countries     | Azerbaijan    |                      |                               |
|                   | Jordan        | √                    | √                             |
|                   | Malaysia      | √                    |                               |
|                   | Turkey        | √                    | √                             |

√ signifies that there is no specific visa type for medical tourists however the application process is less complicated if the travel purpose is declared as medical tourism

Source: PwC Analysis

### 3 Benchmark Case Studies

### 3.1 Methodology

The purpose of this study is to better understand the medical-related and tourism-related variables that underpin productive and sustainable medical tourism models in developing and developed medical tourism contexts. In order to reach our purpose, we defined three objectives as follows:

1. To examine medical tourism ecosystems including their governance, coordination of stakeholders, planning, development, marketing and funding
2. To understand the importance of the OIC countries for the global medical tourism market (for supply-demand)
3. To recommend strategies to create/improve medical tourism in the OIC Region

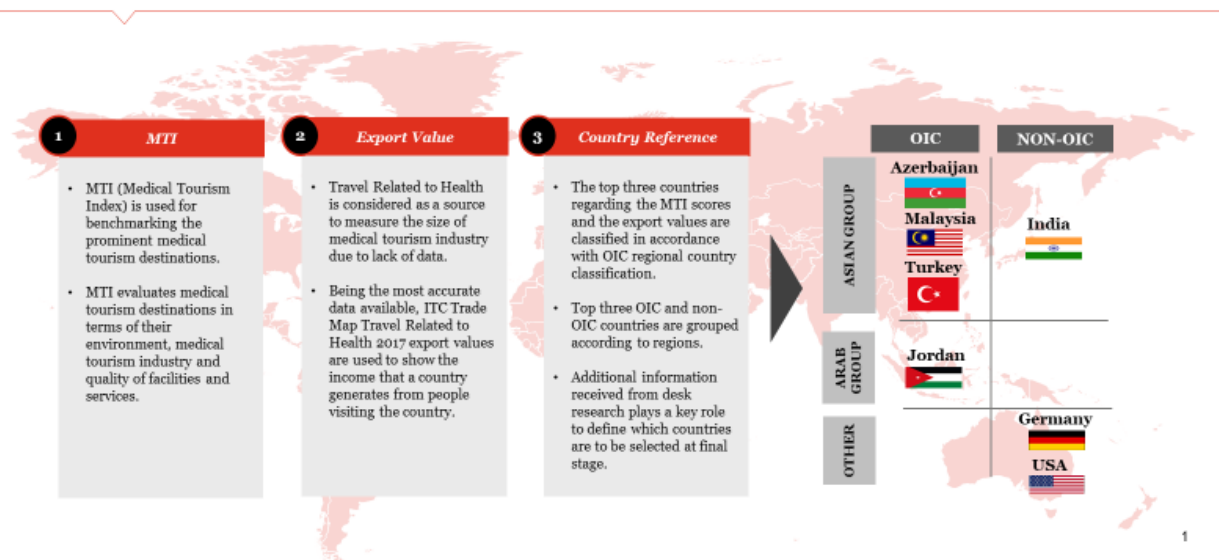
The study is composed of five main successive parts of work: (i) introduction, (ii) conceptual framework, (iii) case countries, (iv) policy recommendations, and (v) conclusion.

The conceptual framework is based on an extensive analysis of current literature on the field. The purpose is to provide conceptual definitions and framework and to demonstrate the general situation relating to medical tourism at global level. The section firstly describes the concept and relevant terminology; secondly provides a categorization for services of medical tourism; and lastly examines and compares countries across the World through their activities in medical tourism.

The section on case countries is designed as a comparative research. The purpose of the comparative research is to evaluate countries with the same indicators in order to compare their performances as long as the data is available. In this research, comparison was made through sections such as infrastructure, healthcare model, stakeholders, marketing strategies, financing of healthcare services and legislation. It is composed of both desk research as well as quantitative and qualitative analysis outcomes. Countries for the comparative study were selected through three stepped analysis. At the first, we used quantitative indicators such as Medical Tourism Index and export value. Medical Tourism Index, which is developed through a combination of healthcare and medical tourism related parameters, is the most frequently used index for comparison of destinations. Their methodology highlights 41 countries and ranks their performance in the medical tourism industry. As for the export data, the most relevant indicator with the medical tourism is found to be export of the travel related to health. The data source, ITC Trade Map, which collects the most accurate data from other sources, provides 2017 figures as the most recent data available. After coming up with a list of countries through the evaluation of both indicators, we have ranked the top three countries according to the regions and OIC classifications. In addition to data driven analysis to filter the first three countries of each region, we have benefited from academic researches and reports in order to determine which countries make the most appropriate selection for the case comparison section of this report (See Table 11).

**Table 11. Case Country Selection Methodology**

*We have applied three set of criteria to select benchmark countries within OIC region and the rest of the world*



Source: ITC Trademap, MTI, PwC Analysis

This way, we have shortlisted 15 countries and we have eliminated 8 of them due to lack of data and information. At the end, 7 countries were obtained for the comparative analysis: Turkey, Germany, the United States, India, Jordan, Azerbaijan and Malaysia<sup>35</sup>. Among them 4 cases were examined based on desk research; while three of them were also supported by the informant interviews with the most relevant stakeholders in these countries.

The reason to select key informant interviews as the method of our qualitative analysis was based on time limitations. Key informant interviews allow us to learn crucial information and specific aspects of the situation in the most direct way, as key informants are the experts in their field. In order to conduct these interviews, we used stakeholder analysis to identify organizations based on their degree of relationship with the subject and their roles.

First, we classified all stakeholders within three categories: the government, I/NGOs, travel agencies, insurance companies and hospitals. After that, we specified their roles and their (potential) effects as primary, secondary or tertiary depending on their relationship to the research topic. For instance, if an organization has a direct effect or interest to the objectives of medical tourism, we placed that organization as a primary degree stakeholder, definitely to be contacted. We also used the snowball technique to help identify other key informants through

<sup>35</sup> Malaysia is selected due to analytical literature review

the contacts that we already reached. For the desk researched countries, we used the same methodology without site visit, to define stakeholders.

Except field visits to Turkey and Germany which have been successfully carried out, on the other hand, third study visit destination Jordan visit was cancelled due to the restrictions of travel and lockdowns as a result of COVID-19 pandemic. Also, efforts to schedule online interviews with public institutions and hospitals have remained unfulfilled due to their priorities in crisis management. The interviews in Turkey were held between the beginning of February to middle of March, 2020 whereas interviews in Germany were performed in the week of 24 February, 2020. In order to portray the insights of relevant stakeholders who were interviewed during study visits, “text boxes” are used in Analysis of Findings section under Turkey and Germany case countries.

The approximate length of interviews varied from 30 minutes to an hour. In total, 26 persons and 20 institutions both from public, private and non-government sectors were contacted. In Turkey, 18 persons from 14 institutions, precisely, six hospitals (Acıbadem Hospital, Ankara Bilkent City Hospital, Antalya Education and Research Hospital, Antalya Manavgat Hospital, Dünya Göz Hospital, Maya Group); two government agencies (USHAŞ and Ministry of Health Medical Tourism Department); four non-governmental organizations (TURSAB, TUTAP, Medical Tourism Promotion Association, Medical Tourism Association of Turkey); one intermediary agency (Ayder Turizm); and one consulting firm on incentives (Denge Müşavirlik) were interviewed. Also in Germany, 8 persons from 6 institutions, namely, two hospitals (Charité and Ernst von Bergmann Hospital Potsdam); one tourism agency (Visit Berlin); one chamber of commerce (German-Turkish Chamber of Commerce); one embassy (the Turkish Embassy); and one correspondent office of medical tourism (USHAŞ Berlin) were visited in order to gain insights about the medical tourism in Germany.

The limitations that we experienced during our desk research were mainly due to lack of data and language barrier (especially for countries which do not provide English as an option on their official websites). The data provided in the field of medical tourism are not standardized and therefore comparison across countries becomes a challenge. Also, the reliability of the data is questionable. Another restriction on data is about the publishing year. While some countries provide their most recent data on medical tourism related indicators, the others either provide the older data or do not provide data at all. This is also a fact that limits the comparison between countries in a healthy way. Furthermore, the methodology of data collection varies from one country to another. Therefore, lack of data, quality of data, date of data, and data collection methodology along with language barrier cause challenges in quantitative desk research sections of this report. For the site visits, the main constraints were composed of the time span of the fieldwork and the unprecedented occurrence of global outbreak of coronavirus which has inevitably limited traveling.

In this paper, we respect the anonymity of our contact persons. The researchers took notes during all consultations. Raw data has been used for the content analysis and reporting. The frame of the interview was defined prior to the interviews by questions specific to the nature of the institutions/organizations. The semi-guided questionnaire can be found in the Annex 2.

## Methodology for Policy Recommendation

The policy recommendations provided in this study aim to propose concrete measures in order to increase the capacity of OIC countries in providing medical tourism services and improving collaborations among OIC countries in this field. In order to bring recommendations in accordance with OIC countries' position in the medical tourism industry, an index composed of infrastructure and demand data is developed.<sup>36</sup> The index aims to demonstrate the member countries' stance within OIC medical tourism market and in compliance with their status, how they can apply the recommendations into their own case.

From this point of view, the recommendations are shaped around the components of medical tourism industry which are examined in the Part 2 section of this report. As all countries have their own unique approach in governance, healthcare provision and financing schemes; components such as infrastructure, marketing, stakeholders and legislation have become eligible to provide comparative recommendations. In the matrix<sup>37</sup> of policy recommendations, recommendations on infrastructure, marketing and legislation are held as the main areas of action while stakeholder is considered as the vertical cutting component of all recommendations. For this reason, stakeholder recommendations are located as a suggested facilitator for the recommendations specific to infrastructure, marketing and legislation.

## 3.2 Analysis of the Findings

### 3.2.1 OIC Countries (Azerbaijan, Jordan, Malaysia, Turkey)

#### 3.2.1.1 The Azerbaijan Case

##### 3.2.1.1.1 General Outlook

Azerbaijan is especially known with its globally recognized and unique wellness tourism destinations. In terms of medical tourism, the market can be considered as in the emerging phase. In 2018, the country gained 2.9 million US dollars (ITC Trade Map) from the health-related travel export. However, the number of outbound patients is far greater than inbound patients (AKARCALI, Tüm Yönleri ile Sağlık Turizmi Azerbaycan Ülke Raporu , 2016). Health related travel import of the country was 3.3 million US dollars in 2018 (UNCTAD). The number of medical tourists preferring Azerbaijan for medical purposes is limited, whereas the country is chosen by international tourists due to its wellness destinations.

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<sup>36</sup> More details on the index methodology can be found in the Policy Recommendations section of this report.

<sup>37</sup> The matrix can be examined in the Policy Recommendations section of this report.

In 2019, 36 thousand tourists visited Naftalan region which is home to the most popular wellness resorts and sanatoriums in Azerbaijan due to its unique oil-based special mud.<sup>38</sup> Azerbaijan attracts health tourists, especially in wellness category, dominantly from Russia and Ukraine due to close ties preserved since the Soviet era. On the other hand; tourists from Georgia, Turkey and Turkic Republics prefer Azerbaijan as a destination country because of geographical proximity and language similarity.

Pull factors that may attract international patients to the country can be identified as cost competitiveness, wellness opportunities, geographical location and touristic attractions. On the other hand, push factors for Azerbaijani citizens to get treatment abroad stem from the insufficient medical service quality and obstacles in accessing healthcare services. Accompanied with privacy concerns and push factors that serve for citizens to seek treatment abroad, Azerbaijani patients mainly travel for treatments which require expertise and experience such as cancer treatment, cardiovascular and neurological diseases. Citizens with middle- and higher-income level usually prefer Iran and Turkey as medical destination due to geographical proximity and cost factor while high income level patients prefer European countries such as Germany and Switzerland mostly due to privacy concerns.

Considering healthcare management of the country, Azerbaijan carries the attributes of the Soviet period which results in providing free health services to the citizens in public hospitals. On the other hand, public hospitals remain its dominance in the sector while private institutions have started to increase recently. Due to the effect of Soviet healthcare model, the country still focuses on the scale of the healthcare services rather than the quality (AKARCALI, Tüm Yönleri ile Sağlık Turizmi Azerbaycan Ülke Raporu , 2016). Since the service quality is not prioritized in the system, medical equipment used in health services is not modernized and does not adopt the technological developments in compliance with the world standards (Bonilla-Chacín, Afandiyeva, & Suaya, 2018). Country's recent investments in hospital capacity and focus on trainings of medical students have created an overcapacity issue, which leads to inefficiencies and financial sustainability problems.

Thanks to the reforms that regulate the health system and projects carried out with international institutions such as WHO and the World Bank, Azerbaijan has taken important steps to improve the quality of health in recent years (Bonilla-Chacín, Afandiyeva, & Suaya, 2018). In addition, factors such as specialist doctors trained in foreign countries returning to homeland and hospital fellowship arrangements conducted with certain countries to train doctors create a stimulating effect for both the country's health infrastructure and medical tourism offering. Followed with the healthcare reforms and increase in the healthcare expenditure, Azerbaijan can increase the quality in healthcare services and turn the over-capacity issue into a potential for medical tourism.

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<sup>38</sup> Azerbaijan Tourism Summit 2019 held in Baku, Deputy Chief Executive Officer of the Azerbaijan Tourism Board Bahruz Asgarov stated that currently, 36,000 tourists visit Naftalan every year and they are expected that number to reach 60,000 people (<https://www.azernews.az/travel/159140.html>).

### *3.2.1.1.2 Pull and Push Factors for Medical Tourism*

Azerbaijan positions itself as competitive wellness tourism destination which creates a potential for the growth of medical tourism. The country can be prominent in medical tourism due to its attributes such as price competitiveness, geographical location, and touristic attractions that serve as pull factors. On the other hand, the difficulties faced by citizens in accessing medical services and poor quality of healthcare are the major reasons behind outbound medical tourism for Azerbaijanis who travel abroad to get medical treatment.

#### **Pull Factors**

##### *a. Wellness Tourism*

The presence of many wellness tourism resources such as healing water sources, volcano muds, Salt Lake treatment muds, healing mud petroleum in Azerbaijan positions the country as a favorable destination in health tourism. The outstanding and most preferred locations are Naftalan with its famous oil-based special mud, Gabala with its mineral water and thermal springs, Qalaalti with its rich in mineral waters, mud volcanoes and oil, and Nakhchivan with its salt therapy.

Oil mixed mud, which is called "Naftalan" while found only in Azerbaijan, is especially good for the nervous system, skin and gynecological diseases. In Azerbaijan Tourism Summit 2019 held in Baku, Deputy Chief Executive Officer of the Azerbaijan Tourism Board Bahruz Asgarov stated that currently around 36,000 tourists visit Naftalan every year while the number is expected to reach 60,000 people next years.<sup>39</sup> It is noteworthy to emphasize that the position of the country in wellness tourism creates the ground for strengthening the medical tourism potential of the country.

##### *b. Cost*

Azerbaijan has a place in the market as a competitive country by offering lower prices than the emerging markets in the medical tourism industry. There are countries that offer lower prices, but when the features such as natural beauty and geographical proximity are included, Azerbaijan stands out as a competitive destination among others. Also, since the Azerbaijani currency is lower compared to the US Dollar or Euro in terms of exchange rates, it provides ease of payment for foreign tourists.

##### *c. Geographical Location*

Azerbaijan is located on the Silk Road and at the intersection between the East and the West. Due to its geographical location, it has cultural similarities with Central Asian countries, Russia, Turkey and Iran. This cultural affinity accompanied with similar languages creates a positive effect in destination decisions. Strong ties with Russia and Georgia coming from the Soviet period and cultural bond with Turkey due to sharing a common language affect the decision of

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<sup>39</sup> <https://www.azernews.az/travel/159140.html>

health tourists of these countries. Also, airport connectivity through international airports facilitates access to the country.

#### *d. Tourism Destination Attractiveness*

As a tourism center, Azerbaijan is a country that represents a rich combination of natural resources, ancient culture, historical and human wealth, lifestyle and ceremonies of various cultures and civilizations. Ecosystem of the country is varied from one region to another and it offers a valuable tourism potential at regional level. The country is home to 9 climatic zones where tourists can enjoy unique natural environment while each region has its own tourism opportunities.

Country has also tourism resources listed within the UNESCO World Heritage Sites like “Walled City of Baku with Shirvanshah’s Palace and Maiden Tower” and “Gobustan Rock Art Cultural Landscape”. In the northern region, Shaki and Guba are outstanding with their rich cultural and historical heritage. While Ganja and Naftalan are the prominent tourism attractions in the western region, Naftalan is known of its special oil- mud with therapeutic effect.

### **Push Factors**

#### *a. Difficulty in Accessing Medical Services*

Health system in Azerbaijan is concentrated in the capital and health resources in remote areas remain inefficient. The health facilities in the rural areas are financed by local authorities and the health budget provided by these authorities are not sufficient enough to provide good quality of services to the citizens. On the other hand, health personnel appointed in the rural facilities is not specialized in particular medical branches, therefore, it constitutes an obstacle to access good quality specialized medical services for people living in rural areas.

Besides problems with reaching good quality services and unbalanced allocation of the medical resources, citizens face with high out-of-pocket payments. Relatively low levels of government expenditure on health as a proportion of gross domestic product has meant that out of pocket payments accounted for almost 78 percent of total health expenditure in 2016 (World Bank). Although the country provides certain healthcare services and medicines free of charge to the citizens through public hospitals, the list of these free services is limited. Additionally, the efforts for transition to compulsory insurance could not be completed due to lack of funds (AKARCALI, Tüm Yönleri ile Sağlık Turizmi: Azerbaycan Ülke Raporu , 2016). These characteristics of the system poses serious implications in accessing healthcare which serve as drivers for getting treatment abroad.

#### *b. Poor Quality in Healthcare*

According to a research about the motivations of medical tourists, one of the most important reason why people seek treatment abroad is the service quality (John & Larke, 2016). The results of the quality assessment within the scope of the Azerbaijan Health Reform Project (2007-2008) prove that the healthcare service quality was inefficient. The outcome of the project was summarized by the experts as:

*"The overall conclusion was that the quality of care was insufficient. Despite the high average indicators of medical personnel and bed stock by population, the health care system in Azerbaijan is not functioning effectively. Similarly, the material-technical base of a number of health care facilities does not correspond to modern requirements. Medical organizations are mainly located in converted buildings which do not meet the sanitary-hygienic requirements. Their provision with modern medical equipment and sanitary motor transport is minimal."* (Ibrahimov, Ibrahimova, Kehler , & Richardson, Azerbaijan:Health system review, 2010)

Followed with the country's incompetency in having state-of-the-art equipment, brain drain of the experienced and qualified medical specialists negatively affect the quality of services (AKARCALI, Tüm Yönleri ile Sağlık Turizmi: Azerbaycan Ülke Raporu , 2016). Furthermore, in Azerbaijan some treatments such as cancer or obstetrics and gynecology can only be given by public hospitals, thus, private hospitals or clinics are not authorized to provide such services. Such limitation in the private sector drives citizens to seek those treatments abroad especially for niche treatments that require high expertise and innovative treatment methods.

#### *3.2.1.1.3 Healthcare Provision Model in Azerbaijan*

The health system in Azerbaijan has passed through 3 phases [Azerbaijan Democratic Republic (ADR), Soviet period and the current system]. The foundations of the health system of Azerbaijan has started with the establishment of the Ministry of Health in ADR period. During this period, resources were scarce, there was only one doctor for 75 thousand people, and parliament implemented decisions to increase the number of hospitals, especially in rural areas, by increasing health spending.<sup>40</sup> In Soviet period, health system was state-owned/controlled and healthcare is free to citizens. During this period, support for medical staff and specialized scientific research institutions has increased in various fields of medicine. After the independence of Azerbaijan, healthcare system confronted economic difficulties and therefore, quality and access to medical service declined. With the health reforms and regulations, Azerbaijan has increased its health expenditure tenfold in the last 10 years with an aim to improve the quality of health services and to strengthen its infrastructure (Akarcalı, 2016).

In line with the Article 41 of the Constitution, access to healthcare is a constitutional right of every citizen. Since the introduction of The Health Financing Concept (2008), all citizens have been entitled to benefit from state-guaranteed basic benefit package which includes primary health care, emergency care and the services of certain types of specialists and is financed by the state budget and mandatory health insurance contributions.

With the establishment of the State Agency on Mandatory Health Insurance in 2007, the reform on transition to compulsory health insurance has started. Pilot insurance projects were started in specific districts which resulted with positive outcomes regarding productivity, efficiency and patient satisfaction. The government plans to transform to compulsory health insurance

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<sup>40</sup> The Republic of Azerbaijan The Ministry of Health

throughout the country as of 2020. Regarding private insurance facilitation, only a small percentage of the citizens benefit from private health insurance.

### **Infrastructure of Healthcare Services**

Healthcare in Azerbaijan is provided by both public and limited number of private institutions which are regulated by the Ministry of Health. Although there is a centralized health system that evolves around the Ministry of Health, it has limited influence over local level healthcare providers which are financially dependent on local district health authorities (Ibrahimov, Ibrahimova, Kehler, & Richardson, Azerbaijan: Health System Review, 2010)<sup>41</sup>. The country has also been in an effort to improve its healthcare system with the assistance of international organizations such as WHO and World Bank.

Considering the health infrastructure of Azerbaijan, the resources are generally concentrated in the capital, Baku, and its surroundings while there is an asymmetrical distribution in other regions. Recruitment and maintenance of medical staff in rural areas are one of the long-standing issues of the country which affects accessibility of healthcare services. Accompanied with the increase in private healthcare providers in Baku, experienced medical professionals were attracted to private sector which resulted in drainage in public health institutions (Ibrahimov, Ibrahimova, Kehler, & Richardson, Azerbaijan: Health system review, 2010).<sup>42</sup> Besides the personnel mobility between public and private sector, there has been a migration issue of skilled health personnel who leave the country to conduct medical practice in more developed countries.<sup>43</sup>

Analysis based on recent data from World Bank illustrates that the country demonstrates a well-developed capacity in terms of the measured capacity metrics that are physicians, nurses, midwives, special surgical labor and hospital beds. Considering the number of hospital beds and physicians, Azerbaijan performs above both world and OECD averages. According to World Bank reports, the country is identified as having adequate number of healthcare personnel and a developed infra-structure (See Figure 28 and Figure 29).

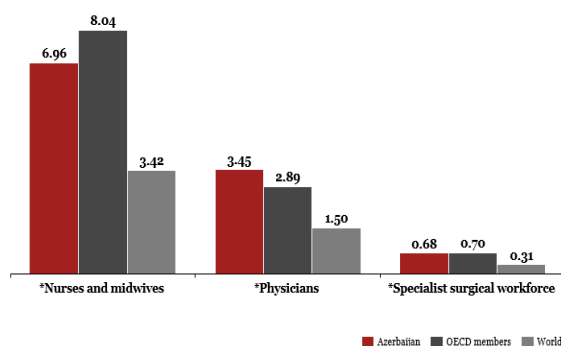
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<sup>41</sup> Ibrahimov, F., Ibrahimova, A., Kehler, J., & Richardson, E. (2010). Azerbaijan: Health System Review. United Kingdom: World Health Organization on behalf of the European Observatory on Health Systems and Policies.

<sup>42</sup> Ibrahimov, F., Ibrahimova, A., Kehler, J., & Richardson, E. (2010). Azerbaijan: Health System Review. United Kingdom: World Health Organization on behalf of the European Observatory on Health Systems and Policies.

<sup>43</sup> US Commercial Service website

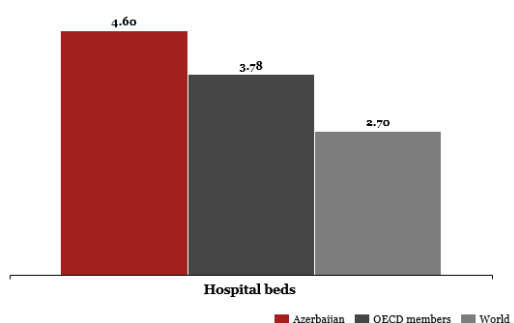
**Figure 28. Azerbaijan: Health Professionals per 1000 Population, 2015**



\*Latest data available is used. Data for Azerbaijan belongs to 2014 while OECD and world belongs to 2015.

Source: World Bank

**Figure 29. Azerbaijan: Hospital Beds per 1000 population, 2011**



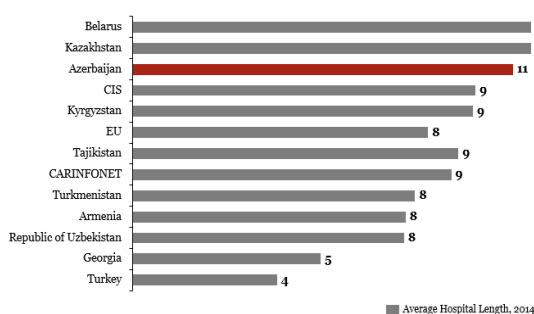
\*Latest data available is used. Data for Azerbaijan belongs to 2014 while OECD and world data belongs to 2015.

Source: World Bank

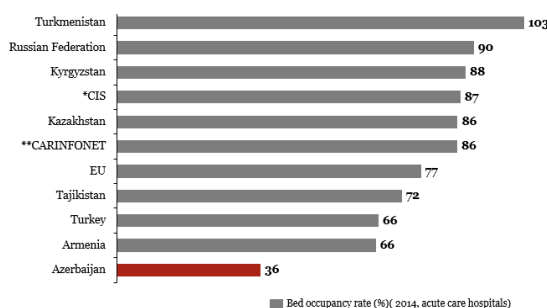
However, utilization rates remain at low levels across the country which reflects inefficient use of healthcare resources. On the other hand, although government level efforts to consolidate hospital infrastructure has been implemented, the healthcare system has overcapacity which negatively affects efficiency and sustainability of the system<sup>44</sup>.

As of 2017, Azerbaijan had 1,225 hospitals and an extensive network of health facilities both in the hospital and the ambulatory sector.<sup>45</sup> Accompanied with over-capacity issues, the average stay at hospitals is very high in the country that manifest the efficiency problems of the sector (See Figure 30). Additionally, bed occupancy rates of Azerbaijan are the lowest in the WHO European Region, which imply obstacles related to over-capacity and access to health problems (See Figure 31).<sup>46</sup>

**Figure 30. Azerbaijan: Average Hospital Length of Stay in Selected Countries, 2014**



**Figure 31. Azerbaijan: Bed Occupancy Rates, Acute Care Hospitals only, in Selected Countries, 2014**



<sup>44</sup> Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. 2018. "Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan". Universal Health Care Coverage Series 28, World Bank Group, Washington, DC.

<sup>45</sup> [https://2016.export.gov/industry/health/healthcareresourceguide/eg\\_main\\_124019.asp](https://2016.export.gov/industry/health/healthcareresourceguide/eg_main_124019.asp)

<sup>46</sup> Ibrahimov, F., Ibrahimova, A., Kehler, J., & Richardson, E. (2010). Azerbaijan: Health System Review. United Kingdom: World Health Organization on behalf of the European Observatory on Health Systems and Policies.

\*Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Uzbekistan

\*\* Central Asian Republics Information Network members: Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyz Republic, Afghanistan

*Source: World Bank*

\*Commonwealth of Independent States: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Uzbekistan

\*\* Central Asian Republics Information Network members: Kazakhstan, Uzbekistan, Tajikistan, Turkmenistan, Kyrgyz Republic, Afghanistan

*Source: World Bank*

## Products and Services in Azerbaijan

Although there is an excess capacity in Azerbaijan's health infrastructure in terms of number of hospitals, bed capacity and medical personnel; modern medical equipment capacity is limited, therefore, the technological infrastructure of the country remain insufficient (Bonilla-Chacín,, Afandiyeva, & Suaya, 2018). Medical education in Azerbaijan is still under the Russian influence which constitutes obstacles in following the modern and disruptive medical techniques. As an outcome of the medical education system which has shortcomings regarding clinical practice and specialized training, med-students receive a general medical training while only a limited number of doctors gets specialized in a particular branch of medicine (AKARCALI, Tüm Yönleriyle Sağlık Turizmi Azerbaycan Ülke Raporu, 2016). In addition to limited number of specialized physicians, experienced and qualified practitioners prefer to work abroad which results in human capital drain in medical sector. However, entailed with the country's position in wellness tourism, Azerbaijan has been developing expertise in some special medical treatments such as physiotherapy, rehabilitation and orthopedics.<sup>47</sup>

The country lags behind its competitors in the field of medical tourism for the treatments that require niche expertise and innovate treatment methods such as cancer, cardiovascular diseases and neurological diseases. Most of the Azerbaijani medical tourists who travel to Turkey for getting treatment in oncology branches while others dominantly pursue cardiovascular, pediatric, obstetrics and gynecology treatments (AKARCALI, Tüm Yönleriyle Sağlık Turizmi Azerbaycan Ülke Raporu, 2016).<sup>48</sup> The reason behind the high demand for getting oncology treatment abroad is related with the limitation that only public hospitals can provide oncology services in Azerbaijan. In 2019, there are only 1375 hospitals beds assigned for oncology treatment which account for only 1.4 percent of hospital bed capacity.<sup>49</sup> Additionally, the medicines used for the cancer treatments and chemotherapy are exported from Russian and India which do not meet the US and EU treatment standards.<sup>50</sup>

However, Azerbaijan has sought to improve the quality of health services through health reforms and projects carried out jointly with international organizations. In recent years, the number of doctors studying abroad, especially in Turkey, to get specialized in innovative

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<sup>47</sup> interviews conducted with the representative of Turkic republics of USHAS

<sup>48</sup> interviews conducted with the representative of Turkic republics of USHAS

<sup>49</sup> The State Statistical Committee of The Republic of Azerbaijan

<sup>50</sup> interviews conducted with the representative of Turkic republics of USHAS

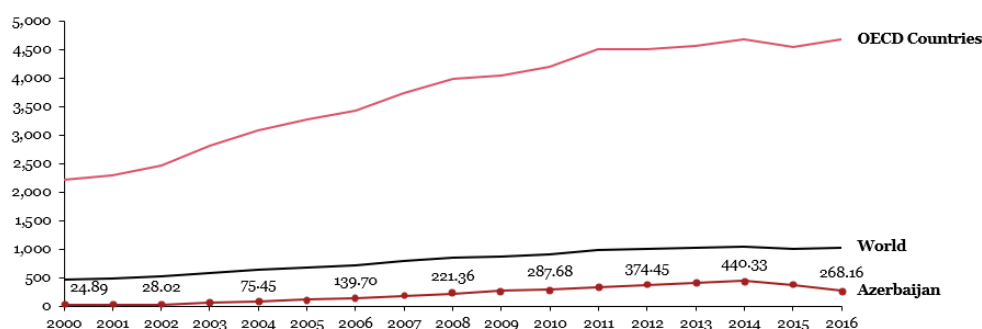
treatment methods and to gain clinical practice has been increasing which contribute to improvement of the health sector of the home country. Combining all these positive changes and attempts to use of health resources efficiently; Azerbaijan demonstrates qualities that are promising for medical tourism potential of the country.

### 3.2.1.1.4 Financing of Healthcare Services

Healthcare financing system of the country still carries the effects of Soviet Semashko model which is entailed with national health service that brings centralized planning of resources, public ownership of health institutions and input based allocation of funds.<sup>51</sup>

In the period of 2000-2016, health expenditure of Azerbaijan has increased significantly which is linked to economic growth of the country. While per capita total health expenditure was almost 25 US dollars in 2000, it increased ten folds in the last two decades with a peak point in 2014 by hitting 440 US dollars level (See Figure 32). As a result of the increase in total health expenditure, medical infrastructure has been renovated and accessibility to medical services has been extended by increasing the number of drugs and medical supplies provided at no cost in inpatient care and by enlarging the population groups who can benefit from outpatient care drugs and medical supplies.<sup>52</sup> Although, the country portrayed a continuous improvement by increasing its health expenditure amount, it still lags behind both world and OECD averages.

**Figure 32. Azerbaijan: Total Health Expenditure Per Capita (in USD)**



Source: World Bank

In 2016, most recent data of the country, domestic general government health expenditure constituted only 1.4 percent of GDP while it comprises 3.9 percent of the overall government expenditure (See Figure 33).<sup>53</sup> Considering the distribution of health expenditure, general

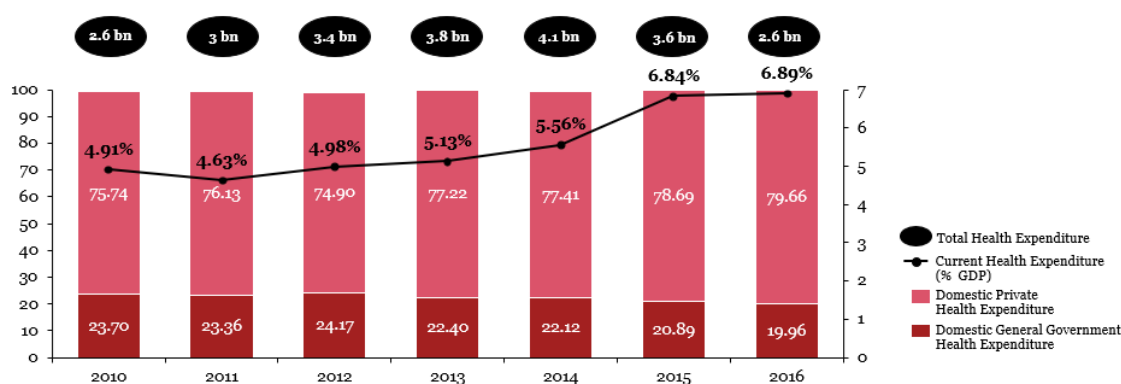
<sup>51</sup> Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. 2018. "Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan". Universal Health Care Coverage Series 28, World Bank Group, Washington, DC.

<sup>52</sup> Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. 2018. "Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan". Universal Health Care Coverage Series 28, World Bank Group, Washington, DC.

<sup>53</sup> World Bank

government health expenditure constitutes only 20-25 percent of the current health expenditure. Therefore, domestic private health expenditure serves a fundamental function in the country's health financing. As a result of low public health expenditure, out-of-pocket expenditure on health remains high.<sup>54</sup>

**Figure 33. Azerbaijan: Distribution of Health Expenditure (%)**



Source: OICStat

### 3.2.1.1.5 Stakeholders in the Medical Tourism Industry

The Azerbaijani health system is largely dependent on the Ministry of Health and local authorities while the system is carried out with the contributions of the Ministry of Finance, line ministries and private providers in industry (Ibrahimov, Ibrahimova, Kehler, & Richardson, Azerbaijan Health system review, 2010). Ministry of Health, which is the main stakeholder of the healthcare system, has the responsibility for the management of the health system. It is represented at the local levels by the district health authorities. The Ministry of Health maintains the republican hospitals, medical institutes and research institutes with the budget coming from the Ministry of Finance.

District health authorities are subordinated to the Ministry of Health in matters of health policy, although they are financially dependent on local governments. These authorities are responsible for the distribution and planning of health services within their provinces. Local governments own the district hospitals, polyclinics and specialized clinics, and state funding for these providers comes from the local government budget through the district health authority. Since local level healthcare providers are depending on local district authorities, Ministry of Health has limited power on influencing local level stakeholders.

<sup>54</sup> According to Azerbaijan Monitoring Survey of Social Welfare (AMSSW) 2015 survey, households spend on average 12.5 percent of their consumption on health.<sup>54</sup> The breakdown of this out of pocket expenditure is mainly dominated by pharmaceutical products which comprises 80 percent of household out of pocket expenditure. Another 10 percent was spent on lab tests and the remaining 10 percent was spent on payments to medical personnel.

Another stakeholder, the Ministry of Finance determines the health services budget. The system shows a complex structure in terms of fiscal and health policies which complicates the task of health management. District health authorities act in line with the directives of the Ministry of Health in the provision of health services, but they are financially dependent on the budgets allocated by the local governments and Ministry of Finance.

There are few institutions in Azerbaijan that support medical tourism. The most known institution is Medical Support and the Thermal Tourism Association of Azerbaijan which works with the Ministry of Health on determining action plans and supporting regulations.

**Table 12. Medical Tourism Stakeholders in Azerbaijan**

| Stakeholder   | Interest Level* | Role and Function  |
|---|-----------------|--|
| Ministry of Health                                  | 1 <sup>st</sup> | The department is responsible for regulating the standards of services provided to foreign patients including the determination of facilities serving international patients.  |
| Local governments and health authorities            | 1 <sup>st</sup> | Local governments and health authorities have the authority to coordinate the services provided to foreign patients in their regions in coordination with the Ministry of Health.  |
| Ministry of Finance                                 | 2 <sup>nd</sup> | The ministry determines the annual health budget and is responsible for budget distribution in between Ministry of Health and local authorities.   |
| Private sector, Hospitals and Clinics               | 1 <sup>st</sup> | The number of private hospitals is increasing, and they can provide services that are allowed for them. In addition, wellness facilities attract many tourists. Private hospitals provide medical procedures to incoming patients excluding cancer and obstetrics. Many prestigious hospitals and clinics also serve in the country. |
| Patients  | 1 <sup>st</sup> | Foreign patients choose the country as destination in order to receive mostly physiotherapy, rehabilitation and orthopedic treatments. <sup>55</sup>   |
| Intermediary Institutions                           | 2 <sup>nd</sup> | Intermediaries provide consultancy and coordination for foreign patients on issues such as arrival in the country, hospital and doctor selection, visa obligations, arrangement of accommodation, transfer etc.  |
| Medical Support and the Thermal Tourism Association | 2 <sup>nd</sup> | The association supports regulations with the aim of developing resorts and medical facilities by organizing its activities on the basis of advanced international experience and requirements, and for the efficient use of natural resources available in the country.   |

\*Interest Level: The term stands for one stakeholder's position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism.

Source: PwC Analysis

<sup>55</sup> interviews conducted with the representative of Turkic republics of USHAS

### *3.2.1.1.6 Legislation*

From the medical tourism aspect, the Ministry of Health is obliged to make certain regulations in order to support medical tourism, and it continues to actively work on strengthening infrastructure, increasing the number of hospitals and equipment. While Azerbaijan's health infrastructure and capacity surplus create an important potential for medical tourism, wellness tourism comes to forefront under health tourism categories. The Ministry of Health is making new regulations and reveal new action plans to revive the medical tourism of Azerbaijan and to take part in the global market.

In order to boost health tourism, the country has adopted a state program during 2009-2018 which focuses on the development of resorts where health and thermal tourism services can be provided.<sup>56</sup> These institutions serve a fundamental purpose in protecting the health of the population as well as they accelerate the patient's rehabilitation process. The program aimed the revival of resorts<sup>57</sup> and sanatoriums in different regions in compliance with modern requirements such as sanitary rules and medical/technical resources. The program also consisted the establishment of medical and health centers in Baku, Nakchivan and other regions to improve the infrastructure.

Although the country has not issued legislative arrangements devoted to health tourism, Azerbaijan plans to develop an Action Plan for the development of health tourism in the near future.<sup>58</sup>

### *3.2.1.1.7 Marketing*

Azerbaijan as one of the emerging markets of medical tourism would reap the benefits of marketing strategies that dwells upon the country's medical capabilities and expertise as well as target country needs. Although the country does not have a marketing strategy that is solely devoted to medical tourism, improvement of wellness tourism and tourism attractiveness of the country function as marketing material and reinforce the country's image in medical tourism as a consequence.

Regarding wellness tourism that is entailed with climatic zones, natural and mineral resources of Azerbaijan, the country promotes it through state programs that improve and increase the number of resorts, health and recreational centers in the specific territories. Additionally, factors that directly serve as marketing methods for medical tourism -such as hosting and attending in international health congresses, fairs, exhibitions or forums, promoting the

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<sup>56</sup> Order of The President of The Azerbaijan Republic of February 6, 2009 No. 125: About approval of the State program of development of resorts in the Azerbaijan Republic in 2009-2018 (as amended on 05-10-2016)

<sup>57</sup> In the mentioned state program resort is defined as the territory having natural medical resources and necessary conditions which are used for the purpose of recovery, prevention and treatment. In Azerbaijan, there are multiple types of resorts such as balneological, climatic, medical and mud resorts and the resort of the Naftalan oil. In the territory of Azerbaijan there are all eight type of mineral water recognized world-wide with their medical qualities.

<sup>58</sup> As the State Tourism Agency office claimed in the 3rd Global Healthcare Travel Forum and 5th Assembly of the Global Healthcare Travel Council held in Baku (<https://www.azernews.az/travel/149462.html>)

country's health and wellness facilities to foreign experts and conducting fellowship arrangements with international hospitals to train medical staff- creates the ground for establishing a brand image in medical tourism.

**Table 13. Medical Tourism Industry Marketing Strategy of Azerbaijan**

| Factors that Serve as Marketing Material for Azerbaijan | Definitions  |
|---|--|
| <b>Tourism Attractiveness</b>                           | <ul style="list-style-type: none"> <li>• Azerbaijan Tourism Board (ATB) manages the innovative marketing needs of the country</li> <li>• Websites such as azerbaijan.travel, salambaku.travel, meetinazerbaijan.com serve as introductory tools for the tourism brand image of the country</li> <li>• International Visitors to Azerbaijan Tourism Survey conducted to investigate the perception and experience of the tourists which provide inputs to tourism strategy of the country</li> </ul>  |
| <b>Wellness Tourism</b>                                 | <ul style="list-style-type: none"> <li>• Under the state program of 2009-2018 development and amelioration of the resorts, health and recreation centers were targeted</li> <li>• Rich curative resources which are known as alternative medicine such as therapeutic mud, mineral water, Naftalan oil, black oil is being promoted through online platforms and tourism documents</li> <li>• Cities such as Naftalan and Nakhchivan which come to forefront regarding their mineral-rich oils, natural substances are being emphasized in tourism documents to create a brand image for these cities in the field of wellness tourism</li> <li>• Resorts and hotels in target regions are promoted</li> </ul>   |
| <b>Traditional and Online Marketing Tools</b>           | <ul style="list-style-type: none"> <li>• The country hosts and represents itself in exhibitions, symposiums, seminars and forums related to health tourism such as: <ul style="list-style-type: none"> <li>– Global Healthcare Forum run by Global Healthcare Council which works on developing medical tourism industry took place in Baku in 2019 which focused on the medical tourism potential of Azerbaijan</li> <li>– Azerbaijan conducts International Medical Innovations Exhibition and International Healthcare Exhibition that serves as a platform for medical professionals, distributors, pharmacists, and scholars</li> </ul> </li> <li>• Foreign health tourism experts are being invited to health resorts of the country to experience the services provided and for experience sharing</li> <li>• Special health tourism map is designed that covers sanatorium, resorts, health centers, spa centers, medical tourism facilities as well as mineral water, healing water sources, spa, climate and curative mud resorts of the country</li> <li>• Azerbaijani health facilities conduct fellowships with foreign hospitals to educate their personnel and modernize their treatment methods</li> </ul> |

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• The Bona Dea International Hospital in Baku which has medical staff from European countries was built in 2018 to attract international patients</li> </ul> |
|--|---|

Source: PwC Analysis

### 3.2.1.2 The Jordan Case

#### 3.2.1.2.1 General Outlook

Jordan is a strong actor in medical tourism market with 503 million US dollar export and 160 million US dollar import value according to health-related travel data (ITC Trade Map, 2017). Jordan has proven its success and quality in medical tourism with the “Best Medical Tourism Destination Award” which was given by the International Medical Tourism Journal (IMTJ) in 2014.<sup>59</sup> Also at regional level, Jordan was considered as the best healthcare service provider in the Middle East according to the World Bank.<sup>60</sup>

Geographical proximity, cultural affinity, use of common language and religious similarity with the Middle East and North Africa regions make Jordan an important destination country in the medical tourism market. In addition to these factors, Jordan is also preferred in the region due to its service quality and advanced treatment methods. The country has constantly increased its health infrastructure by promoting quality and international standards. As a part of the developments in medical care, Jordan have become the first country in the Middle East to perform complicated operations such as open-heart surgery, laparoscopic surgery, heart transplant, kidney, liver and bone marrow transplant. From the medical tourism aspect, the main medical services that the international patients demand in Jordan can be listed as the treatments for heart, bone, eye diseases, kidney transplant, weight surgeries and cosmetic surgeries.<sup>61</sup>

Jordan offers high quality medical services at relatively low cost which gives the advantage of price competitiveness to the country. For example, patients who prefer Jordan as a destination country can save up to 20-30 percent compared to the similar medical services received in the developed markets.<sup>62</sup> Besides, Jordan provides a wide range of treatments available to the international patients at the accredited hospitals. There are, in this sense, 10 hospitals accredited by Joint Commission International (JCI) and 25 hospitals accredited by Health Care Accreditation Council (HCAC).<sup>63</sup>

In 2019, Jordan received 220 thousand medical tourists.<sup>64</sup> The top 5 countries from where patients come to Jordan for medical purposes were composed of Iraq, Saudi Arabia, Syria, Palestine and Libya.<sup>65</sup> Although, Jordan is a preferred destination in the region, the number of medical tourists have dropped in the last years due to conflicts in the region. As a response to the related decline in the number of international patients, the government takes actions to

<sup>59</sup> Private Hospital Associations in Jordan

<sup>60</sup> <https://www.medicaltourism.com/destinations/jordan>

<sup>61</sup> <https://www.jordantimes.com/>

<sup>62</sup> Jordan Times, 2014

<sup>63</sup> Jordan Private Hospitals Association

<sup>64</sup> <https://www.jordantimes.com/>

<sup>65</sup> <https://www.jordantimes.com/>

increase the numbers by lifting the visa limitations to specific nationalities in consideration with the political environment.

In the contrary, some other factors such as high out of pocket expenditure due to lack of insurance make citizens of Jordan consider meeting their medical needs abroad. 32 percent of the citizens do not have insurance coverage which results in spending 3.5 times higher for healthcare services (Unicef, 2016). Another factor which causes patients in Jordan to go abroad for medical needs can be assumed as the limitations in the R&D activities.

### *3.2.1.2.2 Pull and Push Factors for Medical Tourism*

Number of inbound and outbound patients of Jordan is influenced by multiple pull and push factors. Cost advantages, high quality of medical services, availability of specialized professionals and advanced medical procedures and renowned image throughout Middle East and North Africa motivates international patients to travel Jordan as pull factors. On the other hand, push factors can be listed as high out-of-pocket spending and limitations regarding research and development capacity in Jordan.

#### **Pull Factors**

International patients prefer Jordan as a medical tourism destination because of the motivations such as receiving qualified services at low cost and reaching advanced service providers. Also, reputation of the country as a medical tourism destination in the region composes another pull factor.

##### **a. Competitive Pricing**

One of the Jordan's strengths is to be able to offer high quality in medical services at significantly lower prices. Jordan provides competitive prices compared to the US and other developed markets with an average of 20 to 30 percent saving in healthcare expenditure including transportation and accommodation costs.<sup>66</sup> For instance, coronary artery bypass surgery costs an average of 11 thousand US dollars in Jordan whereas 100 thousand US dollars in the US and 35 thousand US dollars in the UK.<sup>67</sup> According to regional comparison studies, Jordan offers more affordable care which is approximately 30 percent less than its primary competitors in medical tourism sector.<sup>68</sup> Additionally, Jordan attracts medical tourists from Gulf countries since medical procedures in Jordan are 50 to 60 percent less costly compared to the issued countries (International Medical Travel Journal, 2018).

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<sup>66</sup> Jordan Times, 2014

<sup>67</sup> Oxford Business Group, 2019

<sup>68</sup> Jordan Hospital, 2018

### **b. Quality of Services**

Medical tourism in Jordan has been continuously growing mainly due to high level of quality provided by state-of-the-art technology in the country. Jordan is defined as the best healthcare providers in the Middle East and North Africa region by the World Bank.<sup>69</sup> High quality standards in Jordan's healthcare system are ensured by the Joint Commission International (JCI) accredited hospitals. Jordan also has its own healthcare accreditation council, namely Health Care Accreditation Council (HCAC). The Council guarantees medical services to meet international standards by implementing courses for quality control professionals. With the implementation of National Hospital Accreditation Program, 25 of the hospitals in Jordan have become accredited by HCAC and 10 of them also have accreditation from JCI.<sup>70</sup>

### **c. Availability of Medical Services**

Jordan was honored as the "Medical Destination of the Year" in 2014 by IMTJ Medical Travel Awards for its wide range of medical services. Jordan has developed high level of expertise in various medical treatments such as cardiovascular treatments, cosmetic surgery, neurological surgery, orthopedics, in-vitro fertilization (IVF) and organ transplants (especially kidney transplant) (The Jordan Times, 2018). The country has an advanced level of medical network supported by the government and private sector. The government has developed a service plan to host international insurance companies from target destinations. For instance, especially patients from Germany are willing to get medical treatment for skin and bone diseases in Jordan.

Also, special services for Muslims such as halal medical treatment, halal food and availability of prayer rooms attract Muslim medical tourists throughout the region to the country.

### **d. Quality of Healthcare Personnel Supported with Special Trainings**

Hospitals in Jordan provide high level of expertise by improving quality and patient safety. In order to have a sustainable healthcare system including qualified and committed professionals, healthcare institutions provide certification and guidance courses with application and mentorship activities in Jordan. For instance, many of the doctors in the leading hospitals in Jordan are certified by US programs such as American Board of Medical Specialties (ABMS), US Accreditation Council for Graduate Medical Education (ACGME), US Maintenance of Certification (MOC) and as well as UK fellowship including General Medical Council (GMC). Moreover, Ministry of Health of Jordan encourages training of healthcare professionals with the objective to improve diagnostic processes and infection prevention. The scope of trainings is prepared within the Healthcare Quality Practitioner Certification Course in collaboration with US Agency for International Development (USAID). Trainings also include English, Arabic and Russian language courses in order to ensure effective communication between doctors and international patients. Thus, international patients receive medication from highly trained and well-known professionals in Jordan.

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<sup>69</sup> World Bank, 2018

<sup>70</sup> Jordan Private Hospitals Association

#### **e. Regional Brand Image**

The Council of Arab Ministers of Health awarded Amman as the capital of Arab medical tourism in 2012. Compared to the neighboring countries, Jordan is considered as safe and stable country which presents credible image throughout the region. Therefore, patients from Arabic countries are willing to travel to Jordan for medical procedures and surgeries that require specialized professionals.

Especially, Jordan's geographical location, use of common language with neighboring countries, historical ties with the countries in the region, similarities in cultural and religious values create undeniable advantages for the country's medical tourism industry among the Middle East and North Africa regions. These factors therefore make the country an outstanding destination for medical tourism.

#### **Push Factors**

Reasons why Jordanian citizens are motivated to travel abroad can be identified through push factors with medical purposes.

##### **a. High Out-Of-Pocket Expenditure**

There is no universal health insurance coverage in Jordan. 32 percent of the citizens are not insured and healthcare cost for them is 3.5 times higher compared to insured population (Unicef, 2016). Also, patients who prefer private medical services have to pay out-of-pocket. Out-of-pocket expenditure of Jordan has reached almost 28 percent of the current health expenditure which is considered high compared to other emerging markets.<sup>71</sup> As a result of this situation, Jordanian patients consider travelling to other countries providing more affordable prices.

##### **b. Lack of Research and Development Activities**

Jordan's total research and development expenditure in 2016 was 0.71 percent of the GDP which puts the country in the back rows in the world (World Bank, 2016). Therefore, local patients who suffer from diseases that need research and clinical trials prefer to travel to developed countries such as the US, Germany and the UK where renowned research-oriented clinics and hospitals are available. Although universities, international organizations and independent researchers conduct studies related to health, patient care and medical technology products, research capacity in Jordan remains limited. In order to increase research and development activities in the field of health, Ministry of Health initiates efforts to improve medical services with more advanced and modern techniques.

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<sup>71</sup> World Bank, 2016

### 3.2.1.2.3 Healthcare Provision Model in Jordan

Healthcare services in Jordan are provided through public, semi-public (partially available for public) and private sector. All sectors include hospitals, primary clinics, pharmacies and other ancillary services. Public health services are provided by Ministry of Health Hospitals, Royal Medical Services, Jordan University Hospitals, King Abdullah Hospital as well as international organizations.

Jordan has been accomplishing its commitment on making health services available and accessible to all. This target was supported with national health strategies that focus on creating a comprehensive system, utilizing best from both public and private service providers, covering all levels of care and improving the service quality.<sup>72</sup> The government of Jordan under the Socio-Economic Transformation Program (SETP), has prioritized expanding and improving healthcare provision to the poor. As a result, health insurance coverage increased from 60 percent to 80 percent in the period of 2000-2015.<sup>73</sup> Accompanied with the health insurance coverage provided to a large share of the population, primary healthcare facilities were upgraded which streamlined access to health services. Within this coverage, all children younger than 6-year old and senior citizens older than 60 years are insured in public healthcare sector.<sup>74</sup> Thus, the majority of citizens have insurance in the public sector while others have coverage through private insurance.<sup>75</sup>

### Infrastructure of Healthcare Services

In 2018, there were 116 private, semi-public healthcare institutions and public hospitals in Jordan that provide 14,741 beds (See Figure 34 and Figure 35). The public sector -Royal Medical Services, Jordan University Hospitals, King Abdullah Hospital are included- accounts for the majority (%60) of these hospital beds, the rest is provided by private hospitals. The number of private hospitals in the country is increasing regularly due to private investments and public-private partnerships. Jordan has adopted liberal economic policies and the free market economy since 1998, so private investment in healthcare has become prevalent. Since then, privately owned hospitals have been actively promoting Jordan as the ultimate medical tourism destination in the region.<sup>76</sup>

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<sup>72</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

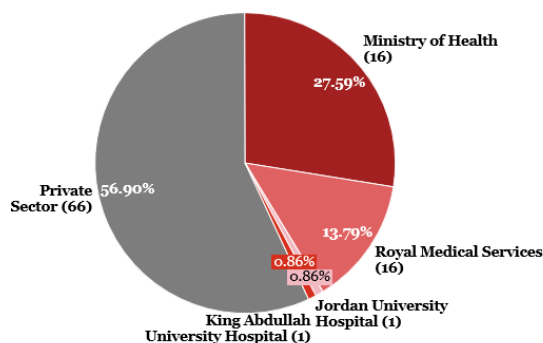
<sup>73</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>74</sup> Jordan population and housing census 2015. Amman (Jordan): Department of Statistics

<sup>75</sup> Nazer, L., & Tuffaha, H. (2017). Health Care and Pharmacy Practice in Jordan. CJHP, 150-155.

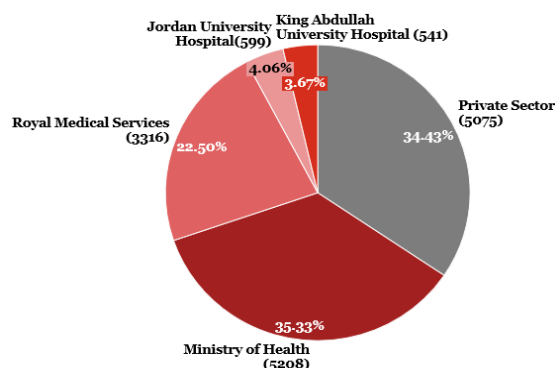
<sup>76</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

**Figure 34. Jordan: Number of Hospitals in Public and Private Sector, 2018**



Source: Ministry of Health, Annual Report, 2018

**Figure 35. Jordan: Number of Hospital Beds in Public and Private Hospitals, 2018**



Source: Ministry of Health, Annual Report, 2018

In Jordan, the hospital bed rate per 1,000 people is about 1.8 which is higher than the hospital bed rates in most of the Arab countries in the region, however, it is lower than the world average which is equal to 2.7 (See Figure 36).<sup>77</sup>

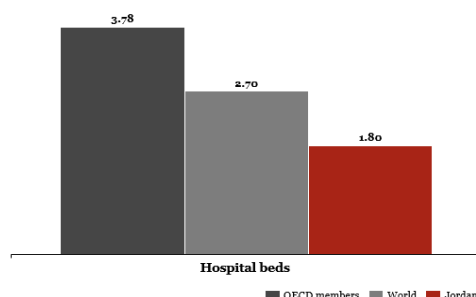
In terms of health professionals, Jordan performs well in the region compared to the Arab countries but falls behind the world and OECD averages. Jordan also supplies health professionals to many countries in the region (Ajlouni, 2010). In terms of the number of physicians, Jordan has the highest rate with 2.58 physicians per 1,000 people in the Arab region while its performance is above the world average and quite close to OECD average (See Figure 37).<sup>78</sup> On the other hand, considering the number of nurses, it is observed that the country performs poorly compared to both world and region averages. Jordan has been suffering with the on-going problem of a nursing shortage as part of the brain drain to the Gulf countries, which is mainly motivated by higher salaries.

Accompanied with success in health indicators, the average stay at hospitals is quite low and bed occupancy rates of Jordan are close to European Region which also indicate the quality and efficiency of the healthcare (See Figure 38 and Figure 39). New hospitals and expansion of services in some existing hospitals kept occupancy rates in hospitals especially in private hospitals low enough to accommodate new patients.

<sup>77</sup> PwC Analysis, OICSTAT

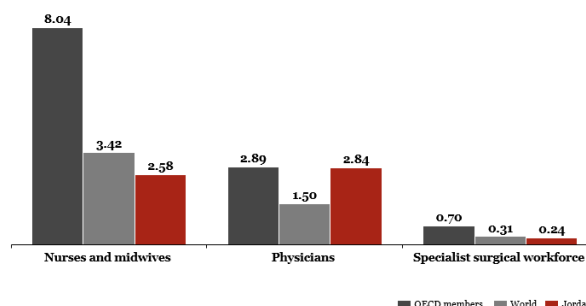
<sup>78</sup> PwC Analysis, OICSTAT

**Figure 36. Jordan: Hospital Beds per 1000 population, 2011**



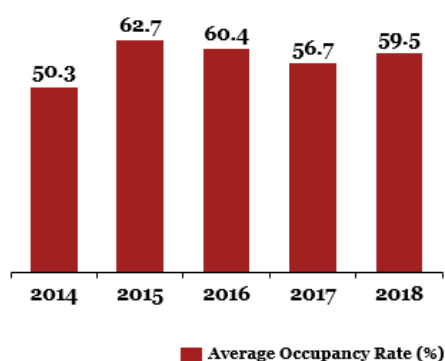
Source: World Bank

**Figure 37. Jordan: Health Professionals per 1,000 Population, 2015**



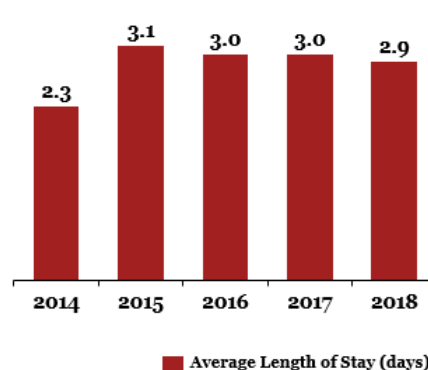
Source: World Bank

**Figure 38. Jordan: Average Bed Occupancy Rate**



Source: Ministry of Health, Annual Report, 2018

**Figure 39. Jordan: Average Length of Stay**



Source: Ministry of Health, Annual Report, 2018

However, there are major geographic disparities in the distribution of health workers among the major cities and the rural governorates in the country. In addition, Jordan aims to strengthen the professional skills of its health personnel, especially nurses as well as other allied health and technical personnel (Ajlouni, 2010). In the Jordan National Agenda (2006-2015), lack of qualified nurses, brain drain of healthcare professionals both from public to private institutions and abroad as well as lack of qualified management systems were considered as the problems faced by the country's medical tourism (Jordan National Agenda Committee, 2005).<sup>79</sup> According to the growth plan, the country targeted to reorganize its policies in order to develop healthcare infrastructure according to the most appropriate models for sustainable management, operation and maintenance of health facilities.

## Products and Services in Jordan

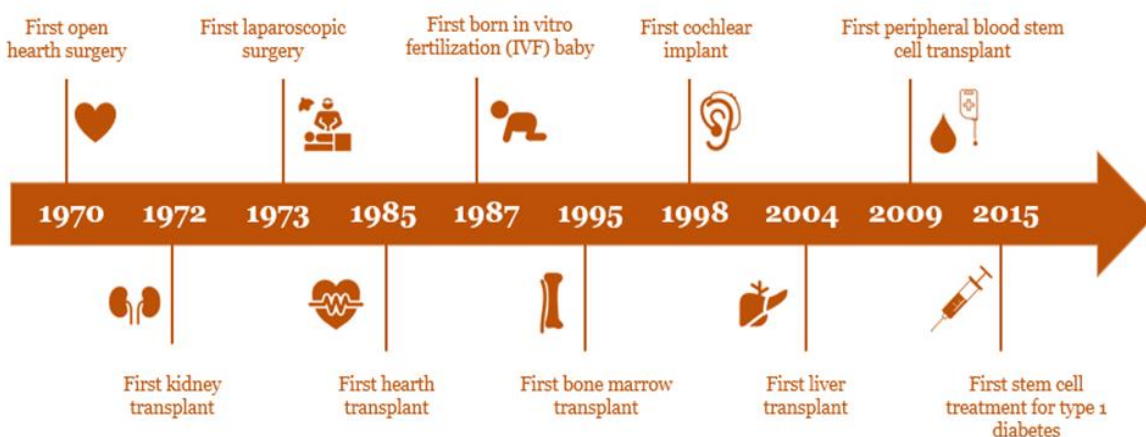
Jordan is a competitive actor in medical tourism market with its reputation in high-quality treatments. While the healthcare sector was developed primarily to serve the local population, developed infrastructure and improved quality of its services have enabled the country to attract international patients as well. Thanks to advanced medical treatments, modern medical

<sup>79</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

facilities, highly qualified professional doctors and other competitive advantages; Jordan has positioned itself as a regional hub for medical tourism that mainly serves to North Africa and Middle East (Nazer & Tuffaha, 2017).

Jordan originally placed itself in the regional market by pioneering open-heart surgeries in 1970s (See Figure 40).<sup>80</sup> With the development of many medical specialties over the last two decades, Jordan has developed an excellent reputation for many treatments and surgeries such as, cardiovascular treatment and surgeries, neurosurgery, vertebral column surgery, orthopedic procedures, transplantation (especially kidney) and cancer treatment.<sup>81</sup> Additionally, Jordan currently has vast expertise in a number of other medical specialties including oncology, pediatrics, acute care, podiatry, and recently cosmetic surgery.<sup>82</sup> Jordan also draws attention with its well-trained and educated medical human resource. Therefore, Jordan has an impressive history of medical achievements which have paved the way for its current reputation of excellence in medical and surgical specialties.

**Figure 40. Medical Achievements of Jordan**



Source: Private Hospitals Association, 2015

Most of international patients coming to Jordan have serious health conditions and medical problems such as cardiovascular diseases and cancer. International patients prefer in general private hospitals and centers especially for their surgical needs. It is crucial to indicate that the internal brain drain of skilled physicians and surgeons from the public sector to the private sector also play a role on this fact. On the other hand, public healthcare providers such as university hospitals and private hospitals as well as medical centers with a specialization in certain branches of healthcare, help gather knowledge and excel in specific treatments to apply. King Hussein Medical Centre is a suitable example for building specialties and providing high

<sup>80</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>81</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>82</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

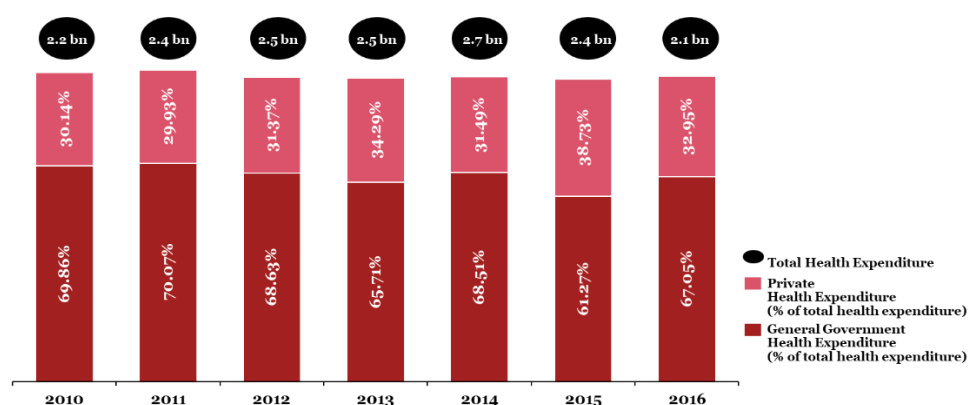
quality services. The JCI accredited hospital is mainly preferred for its cancer treatment services<sup>83</sup> and it is the first hospital in Jordan to serve international patients.<sup>84</sup>

### 3.2.1.2.4 Financing of Healthcare Services

The health financing and provision system of Jordan is a separate multiple public and private system rather than a unified one.<sup>85</sup> The public health programs in Jordan such as Ministry of Health, RMS (Royal Medical Services) and Civil Insurance Program budgets are financed through general budget, premium contributions and user fees.<sup>86</sup> There are major cross-subsidies among public programs, such as separating a share of General Army Budget for the RMS services.<sup>87</sup>

Health expenditure is mainly financed by the general government budget which constituted about 67 percent of the current health expenditure (See Figure 41). Jordan allocates considerably large share of its GDP for health expenditure which is above the average of Arab region countries.<sup>88</sup> Government expenditure on health as a percentage of total government spending has increased from 6.1 percent to 8 percent between 2006-2014.<sup>89</sup> In 2010, Jordan's expenditure on health as a percentage of GDP was the highest in its own income group.<sup>90</sup> Regarding total health expenditure data of Jordan, health expenditure as a percentage of gross domestic product (GDP) was recorded as 5.46 percent and average of 223.5 US dollars per capita in 2016 (See Figure 42). However, increasing number of private facilities and PPP programs create the ground for increasing private health expenditure. Out-of-pocket expenditure is mainly channeled to the private healthcare providers as they offer high quality in their medical services along with high tech diagnostic capacity and skilled medical personnel.

**Figure 41. Jordan: Distribution of Health Expenditure**



Source: World Bank

<sup>83</sup> <http://www.khcc.jo/en>

<sup>84</sup> Royal Medical Services, 2008

<sup>85</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>86</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

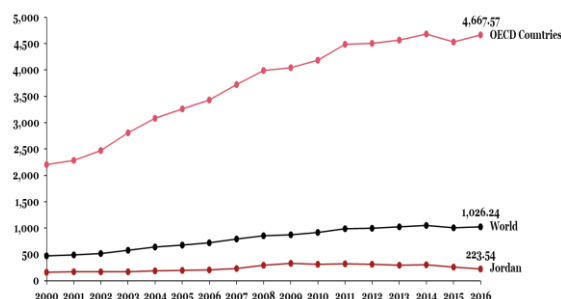
<sup>87</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>88</sup> PwC Analysis, OICSTAT

<sup>89</sup> MoH, 2007; 2014

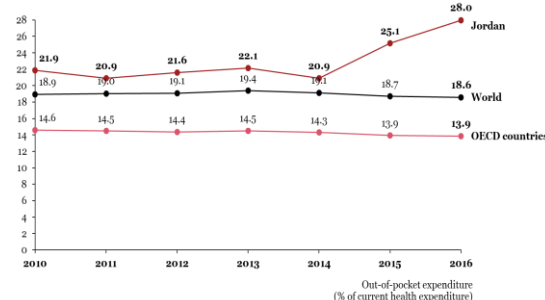
<sup>90</sup> WHO, 2010

**Figure 42. Jordan: Current Health Expenditure (per capita)**



Source: World Bank

**Figure 43. Jordan: Out-of-pocket expenditure (% of current health expenditure)**



Source: World Bank

### 3.2.1.2.5 Stakeholders in the Medical Tourism Industry

Ministry of Health (MOH) is the major provider of health services in terms of its large-scale operations and bed capacity compared to other public and private providers. MOH delivers primary, secondary and tertiary health services through an extensive primary health care network, comprehensive health centers, village clinics and mother-child healthcare centers.

Royal Medical Services (RMS), on the other hand, provides secondary and tertiary care services which is responsible for serving military and security personnel, their dependents as well as uninsured patients referred from MOH and private sector. Functioning as a referral center, RMS plays a major role in the healthcare system since it provides high quality care, complex procedures and specialty treatments to both Jordanians and international patients.<sup>91</sup> Furthermore, university healthcare providers are identified as important actors. Especially, Jordan University Hospital and King Abdullah Hospital follow international healthcare standards by accreditations and increase procedure quality by developing techniques and methods.

On the other hand, private sector has a fundamental role in healthcare system of Jordan due to its high service quality, developed infrastructure capacity, use of advanced technology and skilled medical personnel. In addition to the importance of private sector in providing high quality medical services to the locals, the sector is the main attraction point with its good reputation for medical tourism by serving foreign patients, mostly from neighboring Arabic speaking countries.

As the public-private partnership model becomes more frequent in healthcare sector, private healthcare providers have started to take part in the medical tourism strategic plans and national health policies. Private Hospitals Association (PHA) represents interests of public hospitals in terms of financial efficiency, quality and safety of medical services and assists the

<sup>91</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

members to become accredited by local and international accreditation institutions. Hence, Health Care Accreditation Council (HCAC) develops and delivers quality improvement programs ensuring sustainability of healthcare facilities in terms of meeting international service quality standards and guiding healthcare professionals in the field of Quality and Patient Safety.

In order to explain the interactions between stakeholders in a detailed framework, stakeholders' roles are illustrated in the table below (See Table 14).

**Table 14. Medical Tourism Stakeholders in Jordan**

| Stakeholder                                | Interest Level* | Role and Function   |
|--|-----------------|---|
| Ministry of Health                         | 1 <sup>st</sup> | <u>Policymaking process, regulations</u> : The department coordinates and monitors all activities of health institutions and professionals in both public and private sectors with an ambition to improve healthcare system of the country. |
| Royal Medical Services (RMS)               | 1 <sup>st</sup> | <u>Healthcare provision, insurance</u> : The organization provides secondary and tertiary medical services for the locals and international patients  |
| Private Hospitals Associations (PHA)       | 1 <sup>st</sup> | <u>Healthcare provision, promotion</u> : The institution represents the private hospitals and reports their healthcare performance. Also, it is an important body for promotion of medical tourism through various marketing activities     |
| High Health Council (HHC)                  | 1 <sup>st</sup> | <u>Policymaking process, educational regulations and advisory</u> : The department is responsible for evaluating health policies and assessing requirements of health sectors with formulation of educational policies.                     |
| Health Care Accreditation Council (HCAC)   | 1 <sup>st</sup> | <u>Accreditation, healthcare provision</u> : The council ensures medical services in Jordan meeting the international standards by evaluating hospitals' performance.   |
| Hospitals and Clinics                      | 1 <sup>st</sup> | <u>Healthcare provision</u> : Renowned hospitals such as Jordan University Hospital, King Abdullah Hospital, Islamic Hospital, Hussein Cancer Center, etc. provide specialized medical procedures to incoming patients.                     |
| Patients                                   | 1 <sup>st</sup> | <u>Travel for treatment</u> : International patients prefer to come Jordan to receive affordable and high-quality treatment whereas Jordanian patients prefer to go abroad due to push factors regarding healthcare services in Jordan.     |
| Medical Tourism Directorate                | 2 <sup>nd</sup> | <u>Coordination, transportation arrangements and advisory</u> : The institution provides information about medical tourism services in Jordan to international patients and assists their transportation to hospitals and medical centers.  |
| Jordan Tourism Board                       | 2 <sup>nd</sup> | <u>Travel Arrangements, promotion and advisory</u> : The body utilizes marketing strategies to attract international patients by active participation in fairs, workshops and conventions.  |
| Jordan Food and Drug Administration (JFDA) | 2 <sup>nd</sup> | <u>Healthcare provision, research</u> : The institution develops and implements unified standards for food and drug control and supports cooperation with many international bodies with bilateral agreements.                              |
| Non-Governmental Organizations (NGOs)      | 2 <sup>nd</sup> | <u>Coordination and advisory</u> : NGOs analyze needs of medical tourism in the country and provide training to institutions promoting healthcare   |

|  |  |  |
|--|--|--|
|  |  | services. Also, some NGOs provide health services to refugee populations |
|--|--|--|

\*Interest Level: The term stands for one stakeholder’s position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism.

Source: PwC Analysis

### 3.2.1.2.6 Legislation

Jordan has been establishing legislative regulations in terms of improved quality and access to healthcare services. Ministry of Health actively develops policies and reforms in collaboration with Royal Medical Services and High Health Council (HHC) representing all healthcare providers. National Health Policy aims to make healthcare services available for everyone through comprehensive strategies for both public and private sector stakes. In line with this objective, High Health Council (HHC) evaluates health policies since the early stages of design and planning and provides educational regulations in compliance with the medical tourism requirements (Regional Health Systems Observatory World Health Organization, 2006).

Also, Ministry of Health undertakes an effective role with the establishment of Public Health Law in regulation and monitoring of medical services in collaboration with health councils such as Jordan Medical Council, High Health Council, High Nursing Council and Jordan Food and Drug Administration.

As another motivating factor on behalf of medical tourism, Government of Jordan has introduced Medical Liability Law in order to protect the rights of international patients and doctors in 2016.<sup>92</sup> Studies show that by introducing medical malpractice reform, healthcare quality could be improved with the reduction in medical errors (J Public Econ, 2016). Liability Law help create ethical awareness among healthcare providers which has landed credibility to medical services in Jordan and has motivated the international patients for their travels to Jordan.

In addition, visa policy which facilitates the processes for certain nationalities in their application related to medical needs is an important component of the medical tourism strategy of the country. For instance, patients from Nigeria, Sudan, Libya, Yemen, Iraq, Syria, Chad and Ethiopia are able to receive their visa within 48 hours after submitting their visa application (International Medical Travel Journal, 2018). By the new visa policy regulations, some of the restrictions such as having permanent residency (at least 6 months) in Gulf countries, US, Canada, Australia, Japan, EU countries, Switzerland, UK and South Korea and tickets to prove the travel dates upon arrival have been also removed (International Medical Travel Journal, 2018).

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<sup>92</sup> Jordan Times, 2016

### 3.2.1.2.7 *Marketing*

Private sector has a substantial role in the promotion of medical tourism in Jordan. It establishes connections with the neighbor countries, opens representative offices in the target countries and provides information about the services and treatments offered in the country.<sup>93</sup> Private Hospitals Association (PHA) actively involves in medical tourism promotion activities with the government support.

Another effort for the promotion of medical services in Jordan come from the government side. Bilateral medical cooperation protocols have been established with Iraq, Sudan, Yemen, Libya and Algeria. The protocols have helped attract medical tourists from these countries while streamlining the administrative procedures for the foreign patients.<sup>94</sup> However, because of the conflicts in the region, the visa policy has been revised in 2015. The countries upon which the medical tourism market of Jordan have depended on were restricted from free-visa application. As the restriction negatively affected the demand from those markets, private sector has identified new target markets including Oman, Kazakhstan, Algeria, Chad and Nigeria by using various social media and marketing channels (IMTJ, 2016).

Additionally, under the Jordan Economic Growth Plan (2018-2022), healthcare sector was identified as one of the key sectors which stimulated investments in medical tourism and health sector. Thus, the infrastructure and quality of medical services have been improved as a result of macro level strategies. Accompanied with the increase in quality and developments in infrastructure, Jordan has strengthened its reputation in medical tourism through being awarded by international organizations.

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<sup>93</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

<sup>94</sup> Al-Maaitah, H. M. (2016). An Investigation of The Acquisition and Experience of Medical Tourism: The Case of Jordan.

**Table 15. Medical Tourism Industry Marketing Strategy of Jordan**

| Factors that Serve as Marketing Material for Jordan        | Definitions  |
|--|--|
| <b>Quality of Healthcare and Supporting Infrastructure</b> | <ul style="list-style-type: none"> <li>• Large amount of health expenditure and investments in both public and private sector</li> <li>• Increasing number of the advanced medical facilities belonging to governmental, private and military sectors</li> <li>• Developments in private sector and facilitation from PPPs in medical sector</li> <li>• Improving of the quality and hospital services</li> <li>• Having highly skilled, educated and multilingual labor force</li> <li>• Renovation of medical facilities and equipment</li> <li>• Developing niche medical specialties in hospitals such as King Hussein Cancer Centre, Jordan University Hospital, King Abdullah Hospital and private sectors</li> <li>• Excelling on treatments types such as cardiovascular treatment and surgeries, neurosurgery, vertebral column surgery, orthopedic procedures, transplantation and cancer treatment</li> </ul> |
| <b>Reputation</b>  | <ul style="list-style-type: none"> <li>• According to World Bank: Jordan ranks first in medical tourism in the Middle East and North Africa region and is among the top five in the world</li> <li>• The Council of Arab Ministers of Health has chosen Amman as the capital of Arab medical tourism for 2012.</li> <li>• IMTJ chose Jordan for Medical Travel Award of “Medical Destination of the Year” in 2014</li> <li>• High demand from Muslim patients due to their Islam-compliant treatments and post treatment services</li> </ul>   |
| <b>Administrative Arrangements</b>                         | <ul style="list-style-type: none"> <li>• Collaboration between Ministry of Health and Electronic Health Solutions (EHS) company to technologically transform healthcare system of Jordan</li> <li>• Establishment of <i>Innovative Jordan</i> which is a nationwide campaign to develop innovation capacity of key sectors including healthcare</li> <li>• Launching of Hakeem initiative to automate the public healthcare sector in Jordan using an Electronic Health Record solution</li> <li>• Establishment of <i>Bright Jordan</i> as the first healthcare and medical tourism company that offers integrated medical tourism packages</li> </ul>  |
| <b>Accreditation</b>                                       | <ul style="list-style-type: none"> <li>• Implementation of National Hospital Accreditation Program</li> <li>• Ownership of 10 JCI accredited hospitals</li> <li>• Local accreditation of 25 hospitals by Health Care Accreditation Council (HCAC)</li> </ul>   |
| <b>Touristic Attractions</b>                               | <ul style="list-style-type: none"> <li>• Promotion of touristic products and programs via websites and tourism agencies</li> <li>• Being home to the Dead Sea (the largest natural spa in the world), Petra, Magic Bedouin Star, Mount Nebo. Al-Khazneh and many other historical and touristic attractions</li> </ul>   |
| <b>Traditional and Online Marketing Tools</b>              | <ul style="list-style-type: none"> <li>• Representing the country in international health conventions, fairs, congresses and hosting such events in the country</li> <li>• Establishment of websites to provide trustful information about medical facilities and services provided nation-wide</li> </ul>   |

|  |   |
|--|---|
|  | <ul style="list-style-type: none"> <li>• Launching of <i>Altibbi</i> that is a health platform in Arab world providing medical and health terminology sources for Arabic speaking users</li> <li>• Hosting international insurance companies (especially from Germany) to promote facilities and healthcare system</li> </ul> |
|--|---|

Source: PwC Analysis

### 3.2.1.3 The Malaysia Case

#### 3.2.1.3.1 General Outlook

Malaysia is one the emerging markets of medical tourism sector with 294 million US dollar export and 23 million US dollar import value regarding health-related travel (ITC Trade Map, 2017). The country was recognized as the “Best Country in the World for Healthcare” from 2015 to 2017 and in 2019.<sup>95</sup> Malaysia was also awarded as ‘Destination of the Year’ for healthcare travel from 2015 to 2017.<sup>96</sup> With its successful programs and policies implemented in health sector to realize the potential of the country in medical tourism, Malaysia comes to the forefront in the global medical tourism market with its best-practices. Supported by the efforts of the government in dimensions such as finance, legislation and promotion of medical tourism, the country aims to become a fertility and cardiology hub of Asian region as well as excelling in the other treatment types. In order to advance on particular specialties, several branch hospitals were established such as eye specialist centers, fertility centers, cardiac vascular centers, oral health centers, dialysis centers and rehabilitation centers, in order to improve the quality of medical services and to develop specialization areas. Accompanied with the improvements in health provision, the government actively supports medical tourism promotion tools and channels which contributed to the growth of hospital revenues and medical tourist number.

Malaysia positioned itself in global medical tourism market as a low-cost destination where high quality health services are available with a comprehensive range of treatment types. Compared to the developed countries such as European countries and the US, its competitive prices accompanied with getting treatment from experienced and qualified medical personnel without being obliged to wait for long time attract international patients to the country. A patient who choses Malaysia over the US may save up to 65-80 percent of his/her medical expenditure.<sup>97</sup> In order to sustain the high-quality level of the health services provided, both global and local accreditation mechanisms -such as Joint Commission International (JCI), The Global Healthcare Accreditation Program (GHA) and The Malaysian Society for Quality in Health (MSQH)- play a major role in achieving best practices in the sector.

Malaysia also offers distinct natural attractions to the visitors, which serves as a pull factor for medical tourists who would like to combine their treatment with travel options. Another contributor for tourism attractiveness of Malaysia is tourist flow including medical tourists from Muslim countries such as GCC countries. Offering Muslim patients special services such as halal food and providing prayer rooms along with halal medical treatment (i.e. insulin made from bovine products rather than porcine based) attract religion-conscious medical tourists.

<sup>95</sup> US-based International Living Magazine

<sup>96</sup> UK-based International Medical Travel Journal

<sup>97</sup> Statista, Range of savings in top medical tourism destinations, compared to the U.S. as of 2016\*

On the other hand, push factors that constitute the reasons why Malaysian citizens may prefer to get medical treatment abroad can be identified as shortages related to public healthcare providers and high out-of-pocket payments in health sector. Due to the increase of population and privatization of health services, waiting times in public facilities has increased which directed the middle- and high-income patients to private providers both in the country and abroad. Moreover, high out-of-pocket expenditure and long waiting times in public facilities are the main driving factors for Malaysian citizens to get treatment outside their country.

### 3.2.1.3.2 Pull and Push Factors for Medical Tourism

#### Pull Factors

Pull factors indicate the motivation regarding preferences of patients from other countries to receive treatment from medical facilities in Malaysia.

##### *a. Low Cost Healthcare Service*

Malaysia has been a popular medical tourism destination due to its quality healthcare services at competitive prices compared to other developed countries. Malaysia's low cost healthcare service is enabled by lower operational costs given government subsidies, lower malpractice costs, favorable exchange rates and lower cost of living.<sup>98</sup> To set an example, an angioplasty procedure may cost 28,200 US dollars in the United States whereas in Malaysia it costs around 8,000 US dollars (See Table 16). Moreover, institutions such as National Heart Institute of Malaysia has implemented specific fraction of prices to attract foreign patients especially from the US and Europe. These factors account for popularity and increasing numbers of medical tourist seeking to get a high quality and affordable treatment in Malaysia.

**Table 16. Comparative Price List of Selected Treatments by Countries (in USD)**

| Medical Procedure | USA     | Jordan | Turkey | Malaysia | India |
|-------------------|---------|--------|--------|----------|-------|
| Heart Bypass      | 123,000 | 14,400 | 13,900 | 12,100   | 7,900 |
| Hip Replacement   | 40,364  | 8,000  | 13,900 | 8,000    | 7,200 |
| Knee Replacement  | 35,000  | 9,500  | 10,400 | 7,700    | 6,600 |
| Angioplasty       | 28,200  | 5,000  | 4,800  | 8,000    | 5,700 |
| Dental Implant    | 2,500   | 900    | 1,100  | 1,500    | 900   |

Source: Statista

##### *b. Availability of Internationally Accredited Medical Services*

Privatization of healthcare and prevalence of private institutions have been one of the major determinants of good healthcare infrastructure and quality-based service provision in Malaysia. Accreditations from global institutions play a crucial role to assess infrastructure quality.

<sup>98</sup> Chandran, S. D., Mohamed, A., Zainuddin, A., & Puteh, F. (2017). Medical Tourism: Why Malaysia is Preferred Destination? *Journal of Computational and Theoretical Nanoscience*.

Malaysia currently has 7 JCI accredited institutions. Also, there are globally recognized independent accreditation mechanisms which are widely used such as The Global Healthcare Accreditation (GHA) Program and The Malaysian Society for Quality in Health (MSQH). These initiatives aim to develop safety and quality improvement in healthcare facilities, to ensure standards and to achieve best practices in healthcare.

Malaysia has been recognized as the 'Best Country in the World for Healthcare' from 2015 to 2017 and in 2019 by US-based International Living, a magazine and online portal which caters to seniors. Malaysia was also named as 'Destination of the Year' for healthcare travel from 2015 to 2017 by the UK-based International Medical Travel Journal.<sup>99</sup>

### *c. Tourism Destination Attractiveness*

Tourism attractiveness is one of the major determinants for Malaysia. The country offers distinct natural attractions to the tourists. Malaysia appeals tourists with its more than 1000 islands and with more than 30 designated marine parks and primeval rainforests with dazzling selection of birds and wildlife. Malaysia also has admirable golden beaches, mountains, hotels and shopping centers which is associated with being a fastest growing destination in South East Asia. Low cost of living and wide range of selection for visitors makes Malaysia one of the ideal holiday locations. Country also offers fascinating cultural mix with colorful festivals, unique architecture, art, crafts and food which affect the destination decision of tourists. Especially for ecotourism segment, Malaysia proposes fascinating natural land and marine habitats, and this constitutes another factor for Malaysian tourism to remain its position as one of the top touristic destinations.<sup>100</sup>

Malaysia stands out and well-known by providing special services along with halal medical treatment such as halal food, providing prayer rooms and providing halal treatments (i.e. insulin made from bovine products rather than porcine based). Malaysia's special treatment and care offerings for Muslim nation patients constitute a natural environment for Muslim medical tourists.

## **Push Factors**

Push factors indicate the motivations regarding preferences of patients in the Malaysia to receive healthcare in other countries.

### *a. Shortages in Public Healthcare Providers*

According to the Malaysia Health System Review Report, Malaysian public healthcare system struggles with keeping the pace with population growth especially in urban areas.<sup>101</sup> Quick growth of private health services has excluded poorer people who rely on public institutions. Malaysian public healthcare providers face with severe crowd while patients experience long waiting times in public clinics. Also, shortage of primary health care medical staff, limited public

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<sup>99</sup> Thomas, J. (2019). *Malaysia's medical tourism on a high*. Retrieved from The Asian Post.

<sup>100</sup> Alam, A. F., Er, A., Begum, H., & Alam, M. (2015). The Factors of Selecting Malaysia as Tourist Destination. *Mediterranean Journal of Social Sciences*.

<sup>101</sup> Jaafar, S., Noh, K. M., Muttalib, K. A., Othman, N. H., & Healy, J. (2013). Malaysia Health System Review. *Health Systems in Transition*.

clinic working hours, insufficient facilities and medical equipment to undertake advanced treatment and diagnostic procedures create additional challenges.

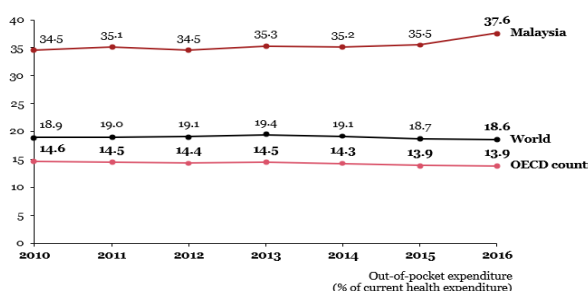
Moreover, especially loss of qualified doctors from public sector significantly contributes to this problem. Medical staff and specialists leave public hospitals to work in private institutions as it is more lucrative due to a growing international market.<sup>102</sup> These barriers has a potential to be counted as push factors for Malaysia since patients may look out for options and become medical tourists for cheaper destinations where waiting times are shorter than their home country.

### *b. High Out-Of-Pocket (OOP) Expenditure*

Increasing rate of out-of-pocket (OOP) expenditure constitutes a considerable push factor for Malaysian healthcare system. Out-of-pocket expenditure is seen as a regressive method of financing and it is believed that ensuring fairness in financing is needed especially for protection of the poor and vulnerable.<sup>103</sup> Out-of-pocket expenditure in Malaysia had reached 37.6 percent level which is very high compared to OECD and world average (See Figure 44).

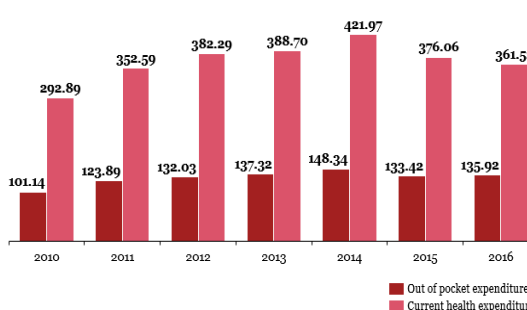
The increase in OOP payments is mainly due to a rise in the purchase of private care, which is frequently utilized by the urban population since there is an expansion of private healthcare and long waiting lists in government hospitals.<sup>104</sup> High OOP in Malaysia poses a high risk in terms of sustainability of healthcare system. As a result, patients in Malaysia are willing to travel where less costly treatments are available.

**Figure 44. Malaysia: Out-of-Pocket Expenditure (% of current health expenditure)**



Source: World Bank

**Figure 45. Malaysia: Total Health Expenditure and Out-of-Pocket Health Expenditure (per capita, \$)**



Source: World Bank

### *3.2.1.3.3 Healthcare Provision Model in Malaysia*

Malaysia's healthcare system is divided into two branches consisting of a government-led public sector and a progressively expanding private sector. Starting from the beginning of 1980s, healthcare system in Malaysia has been transforming from a government dominated sector into

<sup>102</sup> Jaafar, S., Noh, K. M., Muttalib, K. A., Othman, N. H., & Healy, J. (2013). Malaysia Health System Review. *Health Systems in Transition*.

<sup>103</sup> WHO

<sup>104</sup> Yorulmaz, M., & Mohamed, N. N. (2019). Malaysia Health System Review: Overviews and Opinions. *International Health Administration and Education (Sanitas Magisterium)*

a system where private sector engagement is welcomed. The private sector is funded through out-of-pocket expenses and private insurance schemes.

Malaysia's public healthcare sector can be analyzed in terms of coverage under three characteristics, namely; scope, breadth, and depth.<sup>105</sup> In terms of scope, comprehensive services including preventive and primary healthcare to tertiary hospital care, are offered by the Ministry of Health. Secondly, Malaysia's public healthcare sector has a huge breadth as the system covers whole population, however, accompanied by long waiting hours as a result of under-staffing which orient people toward using services provided by private sector. Finally, public healthcare services have a considerable depth to the extent that very few of the Ministry's expenditures are recovered from patient charges. This depth is achieved by providing subsidized goods and services to users.

Although the government puts efforts to provide good healthcare for low cost, public system was not successful at keeping the pace with population growth. Consequently, well-off portion of the society enjoys quicker access to private health care, while the poorer population has to settle with lower quality public services.<sup>106</sup> Nevertheless, Malaysian government demonstrates its commitment to achieving Universal Health Care specifically for the underserved and poorer portion of the population through new programs such as B40 which stands for "Bottom 40 Percent".<sup>107</sup>

### Infrastructure of Healthcare Services

Beginning from the late 21st century, Malaysia experienced significant expansion in its economy which brought intense population growth. As a result, investments into healthcare infrastructure were becoming more than a necessity. In order to cope with the burden on government budget, Malaysia turned its face towards "privatization" while government still remains as an important player. While public healthcare is provided through the national healthcare system by government, private healthcare is provided by different types of players, ranging from "for-profit" institutions and self-employed practitioners, to "not-for-profit" institutions. Malaysia's public health services sector derives its advantageous position from the structure of funding through general tax revenues.

The government encourages private sector investment by contracting several services including hospital services and drug distribution and continues to corporatize some institutions (e.g. National Heart Institute). The participation of private sector in terms of the number of hospitals and capacity regarding the number of beds display a rising trend as opposed to public sector (See Figure 46 and Figure 47). As of January 2019, nearly 69 percent of clinics (7571 clinics) and 55 percent of hospitals (200 hospitals with 14,799 beds) are privately owned while there are 144 public hospitals and nine specialist public medical institutions.<sup>108</sup> Public hospitals have higher capacity; on average, public hospitals had 42,300 beds while private hospitals had 15,600 beds in 2018. Since there is a major shift toward private facilities, private health care providers

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<sup>105</sup> Asia-Pacific Observatory on Health Systems and Policies, 2013, pp. 43-44

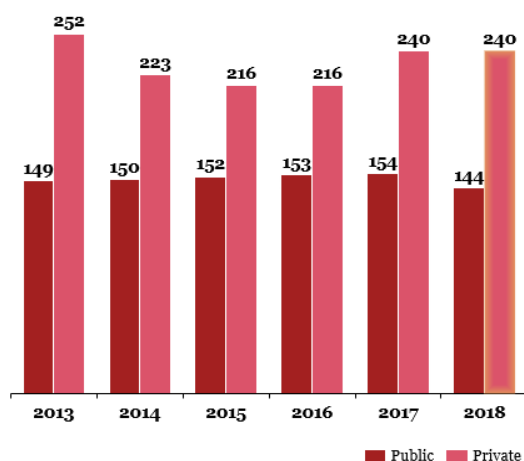
<sup>106</sup> Asia-Pacific Observatory on Health Systems and Policies, 2013, p. 86

<sup>107</sup> Fong, L. F. (2019). *Malaysia committed to achieving Universal Health Coverage, says Dr Dzulkefly*. Retrieved from The Star.

<sup>108</sup> Ahmad, D. (2019). Enhancing Sustainability in Healthcare Delivery- A Challenge to the New Malaysia. *Malays J Med Sci*.

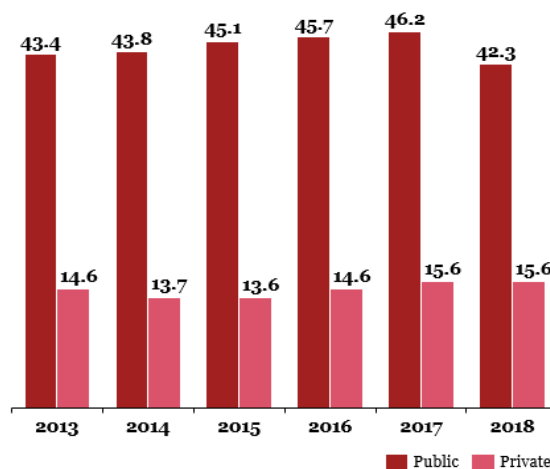
and insurers approximately provides 48 percent of the total health expenditures which is equivalent to 2.2 percent of the gross domestic product.<sup>109</sup>

**Figure 46. Number of Public and Private Hospitals in Malaysia, 2013-2018**



Source: Statista

**Figure 47. Number of Beds in Public and Private Hospitals in Malaysia, 2013-2018 (in 1,000)**



Source: Statista

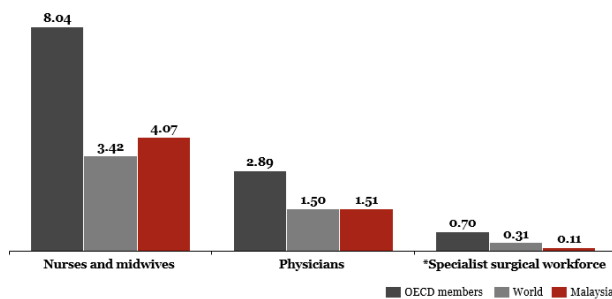
Despite the increasing presence of the private sector in healthcare, government still puts efforts to ensure equal access to healthcare. In 2019, approximately 29 billion Malaysian Ringgit (7.1 billion USD) that equals to 10 percent of the national budget was allocated by government for healthcare expenditures. Also, 10.8 billion Malaysian Ringgit (2.6 billion USD) of the total governmental health budget mentioned above was allocated for the maintenance and development of the existing healthcare facilities and procurement of medical supplies and equipment (US International Trade Administration, 2019).

Despite the fact that Malaysia is an attractive station for medical tourism, it lags behind OECD countries in terms of health care personnel especially in specialist surgical workforce and hospital beds per population (See Figure 48 and Figure 49).<sup>110</sup>

<sup>109</sup> Ahmad, D. (2019). Enhancing Sustainability in Healthcare Delivery- A Challenge to the New Malaysia. *Malays J Med Sci*.

<sup>110</sup> Jaafar, S., Noh, K. M., Muttalib, K. A., Othman, N. H., & Healy, J. (2013). Malaysia Health System Review. *Health Systems in Transition*.

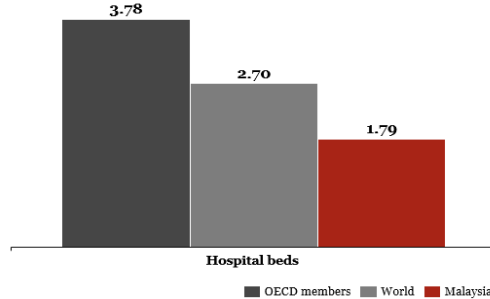
**Figure 48. Malaysia: Health Professionals per 1,000 Population, 2015**



\*Latest data available are used. Data of Malaysia is from 2016 while OECD and world is from 2015.

Source: World Bank

**Figure 49. Malaysia: Hospital Beds per 1000 population, 2011**



Source: World Bank

By building on and further advancing its existing capabilities in health care industry, Malaysia has been recognized as one of Asia's health care providers for both local and international patients, thus, has shown potential for medical tourism.<sup>111</sup>

## Products and Services in Malaysia

Malaysia already has high demand for services like fertility and cardiology treatments and it is supported by government level policies for further development. Malaysian Prime Minister revealed plans regarding medical tourism during his budget presentation in 2018 stating that the government will promote Malaysia as a fertility and cardiology hub of Asia which will be expanded with e-Visa services and high-end medical tourism packages.<sup>112</sup> Due to Malaysia's renowned success on specific treatments, private Malaysian fertility facilities under the guidance of Ministry of Health welcomed a 104 percent increase in demand in 2018.<sup>113</sup> Other services which are most demanded by patients are cardiothoracic surgery, general surgery, orthopedic, eye, and ob-gyn services, as well as general medical screening and cosmetic surgery.<sup>114</sup>

Above average success rates stem from highly skilled doctors, good infrastructure and equipment as well as pre-operative consultations to post-operative rehabilitative treatments and therapies to aid the patients.<sup>115</sup> In order to advance on particular specialties, there are several branch hospitals in place that have significant contribution to Malaysia's quality medical tourism perception by its specialized service delivery. Eye specialist centers, fertility centers, cardiac vascular centers, oral health centers, dialysis centers and rehabilitation centers represent majority of types of branch hospitals in Malaysia.<sup>116</sup>

<sup>111</sup> Chandran, S. D., Mohamed, A., Zainuddin, A., & Puteh, F. (2017). Medical Tourism: Why Malaysia is Preferred Destination? *Journal of Computational and Theoretical Nanoscience*.

<sup>112</sup> <https://www.imtj.com/news/government-invests-73m-malaysia-medical-tourism-sector>

<sup>113</sup> (2018). *Annual Report Ministry of Health Malaysia*.

<sup>114</sup> Leng, C. H. (2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare. *SSRN Electronic Journal*

<sup>115</sup> Chandran, S. D., Mohamed, A., Zainuddin, A., & Puteh, F. (2017). Medical Tourism: Why Malaysia is Preferred Destination? *Journal of Computational and Theoretical Nanoscience*.

<sup>116</sup> <https://medicaltourismmalaysia.com/hospitals>

## Research and Development in the Healthcare Industry

Malaysia is striving to provide high quality healthcare through research and development efforts realized by both public and private sector. The Ministry of Health is currently carrying out programs to stimulate R&D in healthcare industry. “Research and Technical Support Program” led by the Deputy Director General of Health aims to provide support on research services while constituting collaboration with other programs within the Ministry of Health.<sup>117</sup>

The Institute for Medical Research (IMR) undertakes most of the research activities with a focus on identification, prevention and control of diseases and health problems. IMR has funded 82 research projects with 8.68 million Malaysian Ringgit (2.1 million USD) under the Ministry of Health Research Grant scheme. Research activities of IMR are conducted through eight research centers, with each of them focusing on a specific area such as cancer research center (hematology, molecular pathology, stomatology, cancer intervention, diagnosis and prevention), cardiovascular, diabetes and nutrition research center, herbal medicine research center, infectious disease research center, special resource center, environmental health research center, allergy and immunology research center (donor testing, donor registration and donor follow-up for the Malaysian stem cell registry), and specialized diagnostics center.

### 3.2.1.3.4 *Financing of Healthcare Services*

Health expenditure in Malaysia is recorded as 3.8 percent of GDP in 2016, while the average health expenditure of OECD countries was around 12.5 percent of GDP (See Figure 50). Additionally, health expenditure per capita adjusted for PPP (Purchasing Power Parity) was around 1 thousand US dollars while the average health expenditure per capita of OECD countries was around 5 thousand US dollars in 2016.<sup>118</sup>

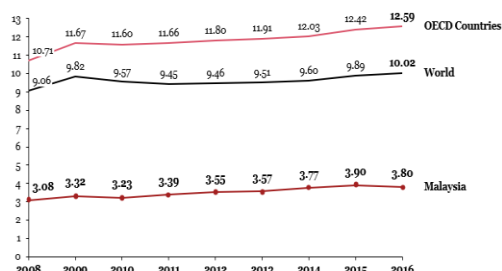
Progress in privatization efforts affected the distribution of health expenditures. Government health expenditure in Malaysia is 50.4 percent while OECD average is 79.8 percent (World Bank, 2016) (See Figure 50). On the other hand, private and out-of-pocket health expenditures (See Figure 44) are respectively 49.5 and 37.6 for Malaysia and on average 20.1 and 13.8 percent for OECD countries.

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<sup>117</sup> Annual Report Ministry of Health Malaysia (2018)

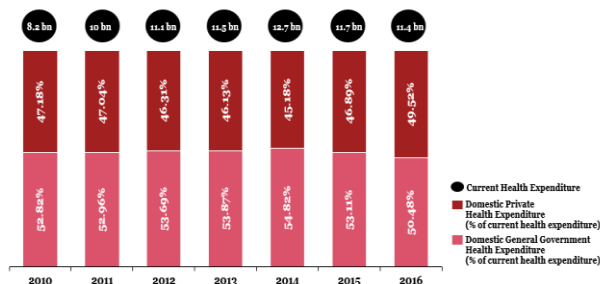
<sup>118</sup> World Bank

**Figure 50. Malaysia: Current Health Expenditure (% of GDP)**



Source: World Bank

**Figure 51. Malaysia: Distribution of Health Expenditure (%)**



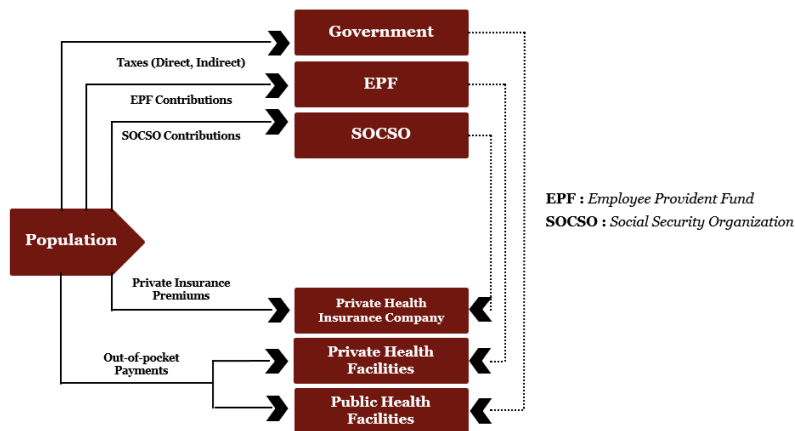
Source: World Bank

Malaysia employs different insurance schemes to finance its healthcare services and to ensure the well-being of its citizens. Several insurance schemes are currently in use and their occasion of usage, which is sometimes entangled, mainly changes according to which type of healthcare service they finance, public or private. While insurance premiums derived from Employees Provident Funds (EPF) and The Social Security Organization (SOCSO) can provide access to both public and private healthcare services including university-run hospitals, private health insurance schemes provide access to only certain private health care institutions depending on the coverage and amount of the insurance scheme.

Most common insurance schemes are Employees Provident Funds and Social Security Organization contributions. In both cases, premiums up to a certain amount are deducted from employees' payrolls to be compounded forward with interest and to be paid back to them at retirement. Their difference is based on the application that in one of the cases, Social Security Organizations make a certain amount of contributions to the premiums paid, while, in the other case, employers are required to make that contribution.<sup>119</sup> Other common insurance is the Private Health Insurances. These policies are purchased by people who prefer to reach private healthcare services on sound economic conditions and avoid out-of-pocket expenses (See Figure 52).

<sup>119</sup> Asia-Pacific Observatory on Health Systems and Policies, 2013, p. 16

**Figure 52. Financing Schemes in Malaysia**



Source: PwC Analysis

### 3.2.1.3.5 Stakeholders in the Medical Tourism Industry

Medical tourism in Malaysia is regulated and legislated by two main authorities which are Ministry of Health (MOH) and Ministry of Tourism (MOT). Ministry of Health is committed to support universal access to qualified and affordable healthcare services offered through national network of hospitals and clinics. Malaysia has a dual healthcare system including both public and private sectors. In order to increase the participation of private sector within general healthcare system, Malaysia Healthcare Travel Council (MHTC) is supporting public-private partnerships (PPP) under the Ministry of Health which has strong public-private partnerships building balance between public and private stakeholders (Medical Tourism Journal, 2018). Thus, Malaysia Healthcare Travel Council (MHTC) facilitates medical tourism industry by coordinating industry collaborations. Additionally, Malaysian Medical Council is established under Ministry of Health in order to ensure the standards of medical ethics, education and procedures for both local and international patients by effective administration of medical policies.

On the other hand, Malaysian Tourism Centre (MaTiC) and Malaysian Association of Tour and Travel Agents (MATTA) are established under the Ministry of Tourism (MOT) that contributes to legislation procedure for Malaysian medical tourism industry by implementing and coordinating medical tourism related activities.<sup>120</sup> Also, these institutions play important role in promotion of medical tourism activities by supporting Malaysia's country image as an ideal destination country for qualified and affordable treatments.

The National Committee for the Promotion of Medical and Health Tourism established in 1998 under Ministry of Health (MOH) is another important actor with a duty of supporting regulations. The National Committee has five subcommittees dealing with different types of actions such as; preparing tax incentives, fee packaging, accreditation guidelines, and advertising guidelines to promote the country for health tourism. The committee was

<sup>120</sup> The Legal Framework for Medical Tourism in Malaysia. (2018). *International Journal of Scientific & Engineering Research*, 903-917.

responsible for a strategic plan that involves promoting a partnership between government, healthcare facilities, travel organizations and medical insurance groups.<sup>121</sup>

On the other hand, private sector has a fundamental role to develop the industry. Stakeholders apply several methods to attract international patients such as improving existing infrastructure and equipment, pursuing international accreditation and transparently offering cost packages. As a private sector stakeholder, media is also crucial since it shapes the perception about medical tourism in society.<sup>122</sup>

In addition, Malaysian generic pharmaceuticals sector strategically encouraged by the government as it is another key actor that contributes to medical tourism in terms of manufacturing pharmaceutical products for health-related fields as a whole.<sup>123</sup> To examine the industry more extensively, the table below demonstrates medical tourism stakeholders in Malaysia (See Table 17).

**Table 17. Medical Tourism Stakeholders in Malaysia**

| Stakeholder   | Relationship Degree | Role and Function  |
|---|---------------------|--|
| Ministry of Health  | 1 <sup>st</sup>     | <u>Policymaking process, regulations:</u> The ministry works closely with the Ministry of Tourism and Culture (MOTAC) to provide an efficient system of healthcare encompassing of both government and private healthcare institutions.  |
| Malaysia Healthcare Travel Council (MHTC)                 | 1 <sup>st</sup>     | <u>Policymaking process, regulations:</u> The council is working closely with stakeholders for the promotion, business development, facilitation, networking, regulation and manage all enquiries on healthcare travel.  |
| Ministry of Tourism and Culture Malaysia (MOTAC)          | 1 <sup>st</sup>     | <u>Policymaking process, regulations:</u> The authority that implement provisions in the Tourism Industry Act including regulations made thereunder. As a governmental agency it promotes the countries' healthcare services and supports the industry by providing multiple-entry social visit pass for special program named "Malaysia My Second Home" |
| Malaysia External Trade Development Association (MATRADE) | 1 <sup>st</sup>     | <u>Coordination and marketing:</u> The agency promote Malaysia's enterprises to the world.   |
| Tourism Malaysia  | 1 <sup>st</sup>     | <u>Coordination and marketing:</u> The marketing board that focuses on promoting Malaysia domestically and internationally.  |
| Association of Private Hospitals of Malaysia (APHM)       | 2 <sup>nd</sup>     | <u>Healthcare provision:</u> The association has a crucial role in its objective of helping to raise standards of medical care within the country.   |
| Malaysian Association of Tour and Travel Agents (MATTA)   | 2 <sup>nd</sup>     | <u>Travel arrangements for healthcare services:</u> The objective is to promote the interests of the travel and tour industry in Malaysia. The institution works closely with the Ministry of Tourism and Culture as   |

<sup>121</sup> Leng, C. H. (2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare. *SSRN Electronic Journal*.

<sup>122</sup> Chandran, S.D., Puteh, F., Zianuddin, A., Azmi, N.A., & Khuen, W.W. (2018). Key Drivers of Medical Tourism in Malaysia. *Journal of Tourism, Hospitality & Culinary Arts*

<sup>123</sup> Hassali, M. A., Yuen, K., Mohamed Ibrahim, M., & Wong, J. (2009). Malaysian pharmaceutical industry: Opportunities and challenges. *Journal of Generic Medicines*.

|  |                 |  |
|--|-----------------|--|
|  |                 | well as Malaysia Tourism Promotion Board (MTPB) to provide support organizing fairs, seminars, convention and workshops  |
| Malaysian Society for Quality in Health (MSQH) | 2 <sup>nd</sup> | <u>Organizational assessment and management for healthcare services:</u> The institute provides a strong accreditation standard for hospitals.   |
| Non-Governmental Organizations (NGOs)          | 2 <sup>nd</sup> | <u>Coordination and advisory:</u> NGOs provides both public and private healthcare services in Malaysia.   |
| Hospitals and Clinics                          | 1 <sup>st</sup> | <u>Healthcare provision, research:</u> Hospitals like KPJ Healthcare, Gleneagles Hospital, Prince Court Medical Centre and Island Hospital has various efforts and achievements to attract foreign patients. |
| Patients                                       | 1 <sup>st</sup> | <u>Travel for treatment:</u> International patients prefer Malaysia to acquire world-class quality treatment with low cost.  |

Source: PwC Analysis

### 3.2.1.3.6 Legislation

In order to benefit from Malaysia's increasing popularity in medical tourism, government provides double tax exemption to hospitals who obtain JCI accreditation. Government actively uses tax incentives as a tool to support growth of healthcare corporations.

Visa policy of Malaysia on the other side, has a crucial role when it comes to attract foreign patients. According to the program in Malaysia called 'Malaysia, My Second Home', foreigners have a five-year multiple entry visa.<sup>124</sup> For instance, Malaysia has a special visa for a country which enables citizens of this country to stay 30 days in Malaysia for their arrival as medical tourists.<sup>125</sup> Malaysia also introduced Healthcare Traveler Programme (MHTP) which enables medical tourists enter the country with less procedures. The Programme contains the introduction of e-Visa (Medical) online platform that provides healthcare travelers easy, secure and quick access to Malaysian healthcare services.<sup>126</sup>

### 3.2.1.3.7 Marketing

Malaysian government has been present and directly involved in promoting medical tourism to overseas through specific institutions, trade missions and other promotional activities.<sup>127</sup> In line with government involvement, Malaysia Healthcare Travel Council (MHTC) was established in 2009 to facilitate and promote medical tourism industry.<sup>128</sup> To this end, government also launched its official website ([www.medicaltourism.com.my](http://www.medicaltourism.com.my)) to properly manage marketing efforts through the internet. Also, various promotional activities were held in different countries to boost country image by various authorities such as Ministry of Health, Ministry of Tourism,

<sup>124</sup> Leng, C. H. (2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare. *SSRN Electronic Journal*.

<sup>125</sup> <https://www.imtj.com/news/malaysia-expects-2m-medical-tourists-2020>

<sup>126</sup> (2018). Annual Report Ministry of Health Malaysia.

<sup>127</sup> Leng, C. H. (2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare. *SSRN Electronic Journal*.

<sup>128</sup> It is a globally recognized body that was awarded as "Cluster of the Year" by International Medical Travel Journal (IMTJ) and "Medical Travel Organization of the Year" in 2017 and 2018.

Association of Private Hospitals of Malaysia, Malaysian Association of Tours and Travel Agencies, Malaysia Airlines, and Malaysian External Trade Development Corporation.<sup>129</sup>

Malaysian government actively encourages medical tourism industry by applying tax incentives and relaxing prohibitions on medical advertising. With government support, medical institutions have launched aggressive marketing strategies to sell products abroad. Since 2005, medical institutions and practitioners have been allowed to advertise their services with immediate effect.

Malaysian government seeks further revenues from medical tourism and in the light of this objective it actively hosts several congress and summits.<sup>130</sup> Successful marketing strategies accompanied with the policies of the country contributed to 17 percent growth in medical tourism market size in the period 2015-2018.<sup>131</sup> This achievement is a result of substantial public-private partnerships driven by MHTC as well as investment and support from both public and private sector.

As well as public contribution to marketing of Malaysian medical tourism, companies and private institutions have been an important determinant of country's success. Hotels and tourist agencies are actively linking up medical centers with holiday packages where they offer hotel accommodation with health screening and medical checkups (Wong, 2003).

A further marketing factor is the "Muslim country" image of the country that provides an attractive environment to Muslim patients by making available halal food and Islam-compliant services.<sup>132</sup> Furthermore, MHTC also provides a dedicated call center and website in Arabic language to further assist medical tourists from the Arabic speaking countries.<sup>133</sup>

**Table 18. Medical Tourism Industry Marketing Strategy of Malaysia**

| Factors that Serve as Marketing Material for the Malaysia | Definitions  |
|---|--|
| <b>Quality of Healthcare</b>                              | <ul style="list-style-type: none"> <li>Highly developed medical infrastructure due to prevalence of high-quality private health institutes</li> <li>Globally acknowledged specialized institutes (e.g. National Heart Institute)</li> <li>Valuable brand image of Malaysian doctors due to their international well-known study experiences</li> <li>State-of-the-art hospital infrastructure and medical staff</li> <li>Centre of excellence for cardiovascular and fertility treatments</li> </ul> |
| <b>Technological Advancement</b>                          | <ul style="list-style-type: none"> <li>Usage of telemedicine (Malaysia Telemedicine Act in 1997) and Fourth Industrial Revolution technologies for more accurate diagnostics and to facilitate easier transfer of medical records from international patients</li> <li>Innovative diagnostic techniques</li> </ul>   |

<sup>129</sup> (2018). Annual Report Ministry of Health Malaysia.

<sup>130</sup> For instance, MHTC hosted insigHT2018, a medical travel market intelligence conference which encouraged knowledge-sharing among industry stakeholders on various concerns and opportunities within the healthcare travel industry.

<sup>131</sup> <https://www.mhtc.org.my/>

<sup>132</sup> Leng, C. H. (2007). Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare. *SSRN Electronic Journal*.

<sup>133</sup> Chandran, S. D., Mohamed, A., Zainuddin, A., & Puteh, F. (2017). Medical Tourism: Why Malaysia is Preferred Destination? *Journal of Computational and Theoretical Nanoscience*.

|   |  |
|---|--|
| <b>Accreditation</b>                          | <ul style="list-style-type: none"> <li>• Ownership of globally recognized accreditations (such as JCI)</li> <li>• Operationalization of international medical travel departments in the hospitals</li> </ul>   |
| <b>Traditional and Online Marketing Tools</b> | <ul style="list-style-type: none"> <li>• Specialized public and private organizations to promote medical tourism [The Malaysia Healthcare Travel Council (MHTC)] Broad usage of social media and internet marketing</li> <li>• Hosting and conducting international conferences and tradeshow on medical tourism</li> <li>• Publishing world-renowned magazines and journals on health and medical sciences</li> <li>• Accommodations' and medical institutions' collaboration on combined holiday for patients (treatment + holiday packages)</li> <li>• Effective person marketing (usage of local personnel) in target countries</li> <li>• Hosting of international conferences and summits (MHTC had organized insigHT2018 which is a medical travel market intelligence conference)</li> <li>• High demand from Muslim patients due to their Islam-compliant treatments and post treatment services</li> </ul> |

Source: PwC Analysis

### 3.2.1.4 The Turkey Case

#### 3.2.1.4.1 General Outlook

Turkey is an increasingly recognized and preferred destination in medical tourism market with 763 million US dollars of export (ITC Trade Map, 2017) and 700 thousand of medical visitors<sup>134</sup> hosted in 2017. The medical tourism in Turkey constitutes 3.4 percent of the country's tourism sector while it has 7 percent share in the global medical tourism market.<sup>135</sup> References of success such as Travel and Tourism Competitiveness Index and Medical Tourism Index, which help to determine the global competitiveness of the country, indicate that Turkey has been improving its global position in medical tourism. According to the Travel and Tourism Competitiveness Index published by the World Economic Forum, Turkey ranked 64<sup>th</sup> among 139 surveyed countries and has the best results among all countries in two of the sub-indicators that are competitiveness and health/hygiene. In addition, Medical Tourism Index, which evaluates the destination environment, medical tourism industry and quality of services ranks of the countries, Turkey is at 32<sup>nd</sup> place among 41 high profile destinations and at 8<sup>th</sup> place amongst the most developed medical tourism destinations in Europe.

The factors attracting patients to Turkey for medical tourism can be identified as high quality medical care with affordable prices and geographical proximity.<sup>136</sup> According to an analysis conducted by Statista in 2016, a patient from the United States can save up to 50 to 65 percent of his/her health expenditure by choosing Turkey which has a developed infrastructure capacity

<sup>134</sup> Republic of Turkey Ministry of Health

<sup>135</sup> *Medical Tourism: A Prescription For A Healthier Economy*. World Travel and Tourism Council (2019)

<sup>136</sup> The Ministry of Health

with high quality, advanced medical technology, well-educated medical personnel and regulated medical standards. Turkey also has 42 health facilities accredited by the Joint Commission International which has the second highest rank in the world.<sup>137</sup> Ministry of Health along with Turkish Medical Association determine the local standards and guidelines that are followed by hospitals, healthcare facilities, and medical practitioners. Coming to geographical proximity, Turkey has a central location that can be reached within 2-3-hours of flight from major cities in Europe and the Middle East. The visa-free policy granted to some countries serves as a pull factor while attempts to streamline visa procedures for medical reasons are in the agenda of the relevant governmental institutions.

The detailed information about the healthcare system of Turkey, reasons behind the inbound and outbound medical tourism, marketing methods and legislative structure of the country is explained in the subsequent sections of this report.

#### *3.2.1.4.2 Pull and Push Factors for Medical Tourism*

Pull factors such as developed health infrastructure, qualified medical personnel, high quality of medical services, price competitiveness of these services, easy access to medical and technological equipment accompanied with geographical location, seasonal and touristic advantages make Turkey a competitive medical tourism service provider in the region.<sup>138</sup> Whereas, factors such as legal restrictions for specific treatments and access to research oriented medical centers for specific diseases in developed countries play a role on Turkish patients' preference to travel abroad for medical needs.

### **Pull Factors**

International patients' preference of travel to Turkey for their medical needs are determined by the pull factors.

#### **a. Quality of Services**

Use of advanced technology and best quality medical products, the state-of-the-art medical facilities, room options addressing the needs of patients and their companions, patient satisfaction policies are the factors to secure the quality in medical services. In Turkey there are 42 medical institutions accredited with Joint Commission International which is the leading institution setting international standards to ensure the medical quality at hospitals and

*"Internationally accredited hospitals are important for the credibility. The highest number of JCI accredited hospitals is in İstanbul."*

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<sup>137</sup> Ministry of Health

<sup>138</sup> Ministry of Health, Health Tourism in Turkey

clinics.<sup>139</sup> Moreover, the fact that cooperation with world renowned medical centers around the world such as John Hopkins, Mayo Clinic and Harvard Medical International helps hospitals in Turkey improve their innovative treatment methods, personnel development and information sharing (Patient Beyond Borders, 2019).

#### b. Waiting time

Medical tourism in Turkey usually takes place in private hospitals. Unlike public hospitals which are to serve all citizens in Turkey regardless of their income status, private hospitals only provide medical services to those who are under private insurance coverage or who wish to pay out of pocket. Therefore, the waiting time in private hospitals is, in contrary to public hospitals, does not constitute a chronic problem.

*“Medical tourism in Turkey is especially practiced by the private hospitals. Now that city hospitals are also in the sector, the business is expanding.”*

*“We have a special system to welcome patients. It is called “end to end” patient welcome system. We have specific offices and additional staff dedicated to patients and their families to give them the best and fastest help in doctor appointment, traveling, accommodation and so on.”*

#### c. Quality of Medical Doctors

The theoretical and practical education system consequently affects the quality of the medical doctors by selecting the best candidates for medical studies and training them extensively for years. Higher education system in Turkey do not let all high school graduates to enroll in a department of their choice; instead, they have to pass a general admission test. Highest scores are usually reserved for departments including medical schools. Those who succeed to be admitted in medical schools are therefore composed of the best students. Also, the medical

*“Our doctors are invited to other countries to give lectures and participate in operations as trainers. They are especially invited for complicated operations.”*

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<sup>139</sup> Turkey is ranked in the 2<sup>nd</sup> place in the world. 37 hospitals as well as 3 clinical laboratories, 1 outpatient and 1 transferring services are JCI accredited in Turkey. The list of hospitals can be found at [visitturkeyforhealthcare.com](http://visitturkeyforhealthcare.com)

schools in Turkey follow an intense curriculum for six years. The theoretical education is supported by the compulsory services following the graduation.<sup>140</sup>

#### d. Variety of Medical Services

Turkey is especially specialized in organ transplantation, orthopedics, neurosurgery, cardiology, eye surgery, plastic surgery and hair transplants.<sup>141</sup> For instance, in eye treatment, Turkey distinguishes with advanced eye hospitals that are identified as world's largest clinic network with Dünya Göz Hospitals. As for surgeries, hospitals such as Acıbadem, Medical Park, Liv, Medicana Hospitals step forward. Also, university hospitals have a major role in complicated procedures.

*"We are especially good in medical branches such as organ transplantation, plastic surgery, dentistry, cardiology, in vitro fertilization and as well as esthetic operations such as hair implantation."*

#### e. Competitive Pricing

Turkey offers advantages in prices compared to the US and other developed markets and provides competitive prices compared to the emerging markets in medical tourism industry. Although it is not possible to suggest that the prices are low for all type of treatments, cost comparison studies show that international patients coming from UK, USA, Italy, Austria, Ireland, etc. can save 50 to 65 percent in average of his/her medical expenditure by choosing Turkey as a destination for medical treatment (Medical Tourism Association, 2019). Whereas, India has competitive advantage in terms of prices when compared to other countries including Turkey (See Table 19). In addition, Turkish currency crisis has brought Turkey in a favorable position since it has become a more affordable destination for foreign nationals.

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<sup>140</sup> After completing the studies composed of theoretical and practical classes, graduate students become general practitioners. There is another mandatory exam<sup>140</sup> for those who wish to continue their studies for medical specialization. Med-graduates who postpone or do not want to continue their studies for specialization in medicine are placed in duty stations to complete their compulsory. For the candidates who take the exam, according to their scores, they accepted to university hospitals for their specialization studies. The years to be entitled as "Specialist" in a medical branch varies from 3 to 5 years depending on the complexity of the branch. For instance, studies to become "family doctor" requires 3 years; "public health practitioner" requires 4 years; "anesthetist" requires 5 years; "general surgeon" requires 5 years; "neurologist" requires 5 years; "cardiologist" requires 5 years, etc. Following their specialization studies, the specialists are appointed to their new duty station determined by the Ministry of Health where they have to serve for minimum of 300 and maximum of 600 days.

<sup>141</sup> SATURK

**Table 19. Comparative Price List of Selected Treatment by Countries (in USD)**

| Medical Procedure       | US      | Thailand | Turkey | Jordan | India |
|-------------------------|---------|----------|--------|--------|-------|
| Heart Valve Replacement | 170,000 | 17,200   | 17,200 | 14,400 | 9,500 |
| Heart Bypass            | 123,000 | 15,000   | 13,900 | 14,400 | 7,900 |
| Hip Replacement         | 40,364  | 17,000   | 13,900 | 8,000  | 7,200 |
| Cornea Surgery          | 17,500  | 3,600    | 7,000  | 5,000  | 2,800 |
| IVF Treatment           | 12,400  | 4,100    | 5,200  | 5,000  | 2,500 |
| Face Lift               | 11,000  | 3,950    | 6,700  | 3,950  | 3,500 |

Source: Medical Tourism Competition: The Case of Turkey, 2018

*“We do not like to brand ourselves as “low-cost”; instead, we would like to step forward among others with our quality of services. Yet, compared to the US and the like countries, we offer affordable prices for really high quality of medical services.”*

Foreign patients prefer countries with cost advantage for treatments such as dental and eye treatments that are not included in their home country's private and state insurance scope. Besides these operations, private insurance plays a major role in destination choosing process in a way that patients would like to cover their medical expenses in destinations where their private health insurance is valid. Therefore, arrangements in between private hospitals and insurance agencies has gained prevalence in medical tourism market. As a result, some of the private hospitals in Turkey signed agreements with foreign healthcare insurance companies - such as AGIS Group, CZ/OZ, BUPA International, HTH Worldwide, International Health Insurance (IHI), International SOS Assistance UK LTD, J. Van Breda & C International, Tricare Europe and Allianz Worldwide- in order to enhance the patient's experience in terms of streamlining travel and insurance procedures as well as providing better pricing terms.<sup>142</sup>

#### *f. Geographical Proximity and Connectivity*

Patients' decisions on destination country selection is also determined by logistic factors such as airport connectivity, variety in accommodation options and transportation facilities within the country. International patients take geographical location and proximity factors into account due to the risks posed by travelling after medical operations. Thus, Turkey has an advantageous position regarding its central location. Patients from more than 48 countries are able to access to Turkey within 4 hours of flight.<sup>143</sup>

<sup>142</sup> Dünyagöz Hospitals. Corporate News. [Last accessed on 2020 June 02]. Available from: <https://www.dunyagoz.com/tr/kurumsal/basinda-biz/saglik-turizminde-turkiyenin-yeni-umudu-avrupali-sigortali-hastalar-referans-gazetesi>

<sup>143</sup> Turkish Airlines

Also, direct flights to several other countries make Turkey a favorable option. Turkish Airlines, as the airline with the largest coverage in the world, offers flights to 299 cities in 120 countries from Turkey.<sup>144</sup> Additionally, in order to support medical tourism sector, special discounts are offered to international patients and travel agencies (International Medical Travel Journal, 2015). Passengers traveling to Turkey for medical treatment with Turkish Airlines from the U.S. are given a 25 percent discount while international patients outside the US receive a 20 percent discount.<sup>145</sup>

*“Not only big cities are popular for the medical tourism. In fact, people from neighboring countries prefer to take the road whereas patients from more distant countries prefer airways. Therefore, regardless the size of the city, medical destinations are made, indeed, by the ease of transportation and accessibility.”*

As another advantage which complements traveling beyond borders, citizens from more than 70 countries have visa-free access to Turkey. No compulsory visa procedure requirement becomes a motivating factor in patients’ decision to select Turkey as destination country for medical tourism.<sup>146</sup>

#### *g. Tourism Destination Attractiveness*

Turkey is a leading tourism destination with its historical and natural attractions.<sup>147</sup> It is also cultural bridge between the East and the West. Turkey is home to countless ancient Anatolian sites which makes it a unique tourist destination for historical trip seekers in particular. For instance, Göbeklitepe in Urfa, Cappadocia in Nevşehir, Ephesus in İzmir, Perge in Antalya and alike sites are not only important as historical landmarks but also, they are considered as holy in various religions. In addition to these, Turkey has many geothermal resources, therefore, it is a highly preferable destination in terms of thermal health, advanced age and wellness

*“When we consider the medical tourism, we should also take into account the natural beauties and historical inheritances of Turkey.”*

*“Especially hair implantation is suitable to discover touristic activities because the procedure does not cause too much pain afterwards.”*

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<sup>144</sup> Turkish Airlines

<sup>145</sup> <https://www.skylife.com/en/2010-01/turkish-airlines-supports-medical-tourism>

<sup>146</sup> Ministry of Foreign Affairs, 2019

<sup>147</sup> According to the World Economic Forum’s Travel and Tourism Competitiveness Report 2019, Turkey is ranked in the 43<sup>rd</sup> place among 140 countries.

tourism. Medical tourists can easily combine their medical visit with a leisure holiday or a business trip.

### Push Factors

Motivations behind Turkish citizens' preferences to seek medical treatment abroad is constituted by push factors.

#### a. Legal restrictions

Availability of medical services is a significant factor that affects outbound medical tourism in Turkey. The healthcare system is regulated by government bodies among which Ministry of Health is the prominent authority with its legislative power both in the healthcare sector and medical tourism. Some techniques of reproductive treatment such as egg donation, sperm donation, gestational surrogacy are legally prohibited in Turkey. For this reason, couples who are disappointed with legislation on in-vitro fertility (IVF) and other legal treatments may seek these alternative techniques abroad (Yildiz & Khan, 2016). Countries in Europe such as Switzerland, the UK, France, Netherlands, Denmark; North America (the US and Canada); and Cyprus (Northern) are especially preferred by those who are willing to have such treatments. Also, according to Turkish Penal Code, active euthanasia which can be defined as physician assisted suicide is also prohibited in Turkey.<sup>148</sup> Patients or their families who seek to get such

*"Some patients and their families request euthanasia; yet in many countries it is prohibited by law. In Turkey, it applies as well, it is prohibited. However, there is a great demand for such procedure worldwide. They go where it is legal, countries such as Netherlands..."*

medical service, travel mostly to the Netherlands, Germany and Switzerland where it is legal.

#### b. Research Oriented Clinics and Hospitals in other Countries

For some severe and/or rare diseases, research becomes a decisive component in the treatment. In countries such as the US, Canada, Germany, the UK research capacity is highly developed at hospitals and clinics. Patients who cannot find a remedy in Turkey prefer to make an appointment with healthcare institutions in these countries. Also, such institutions with high reputation in specific treatments aim to minimize risks of surgical errors, infection rate and

*"We provide very advanced technology based medical services here in Turkey. We also try to develop our research capacity in our labs. We do it in our hospital but if we speak for Turkey in general, the resources allocated to research are limited."*

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<sup>148</sup> Turkish Penal Code, Article 17

complications after treatment which affect the motivation of Turkish patients to travel to such destinations for medical purposes.

#### *3.2.1.4.3 Healthcare Provision Model in Turkey*

Turkey provides universal health insurance for beneficiaries since 2012<sup>149</sup> under the General Social Security (GSS) which ensures maintenance of health statuses of the citizens and financing of costs that arise in case of health risk. Universal health insurance system enables the citizens to receive comprehensive, fair and equitable access to healthcare services, regardless of their economic status. Compared to other developed countries, GSS offers a comprehensive coverage while it clearly excludes aesthetic operations from the scope of the insurance scheme. On the other hand, complementary health insurance<sup>150</sup> initiated in 2012, is a voluntary private health insurance that covers the interventions that are not included or partially covered under GSS.

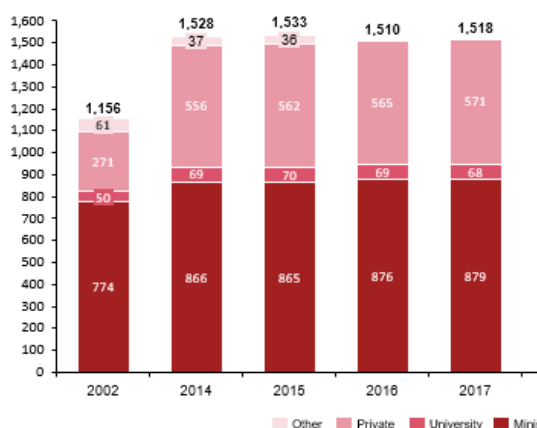
Healthcare services are provided by four different types of institutions that can be categorized as (i) institutions operating under Ministry of Health (public hospitals), (ii) university hospitals, (iii) private healthcare institutions and (iv) public-private hospitals, in other words, city hospitals. Both the public and private hospitals have increased by number since 2002 while private hospitals have displayed a higher growth rate by increasing with a CAGR of 4.8 percent during the indicated period. The increase in the number of private hospitals is in line with the local demand for private providers. The demand was stimulated by the special agreements, arranged between Social Security Institution (SGK) and private hospitals, which regulates out-of-pocket health expenditure of the citizens at private hospitals. As a result, share of private hospitals regarding total number of visits, inpatients, surgical operations and bed occupancy has increased significantly since 2002 (See Figure 53, 54 and Figure 55).

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<sup>149</sup> Compulsory Universal Health Insurance (GSS) for every citizen has started on 1/1/2012. (Ministry of Health)

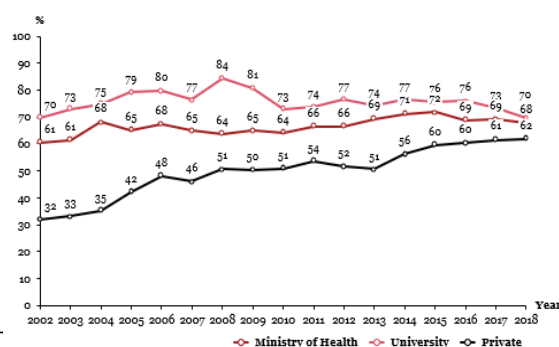
<sup>150</sup> Complementary Health Insurance (TSS) was first included in the Article 98 of the Law No. 5510, later with the Circular No. 2012/25 of SGK regulations regarding "Complementary Supportive Health Insurance" were launched.

**Figure 53. Number of Hospitals by Years and Sectors in Turkey**



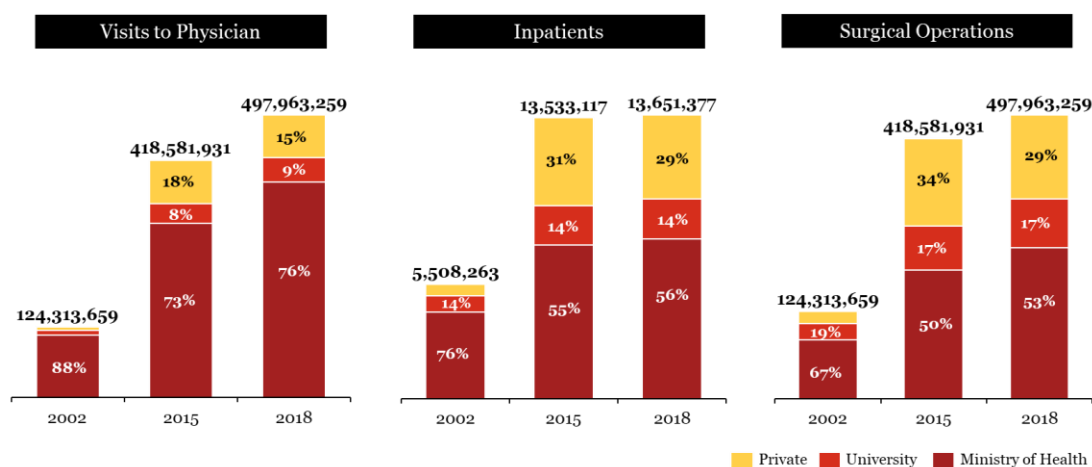
Source: General Directorate of Health Services

**Figure 54. Turkey: Bed Occupancy Rates by Years and Sectors (%)**



Source: General Directorate of Health Services

**Figure 55. Turkey: Total Number of Visits, Inpatients and Surgical Operations**

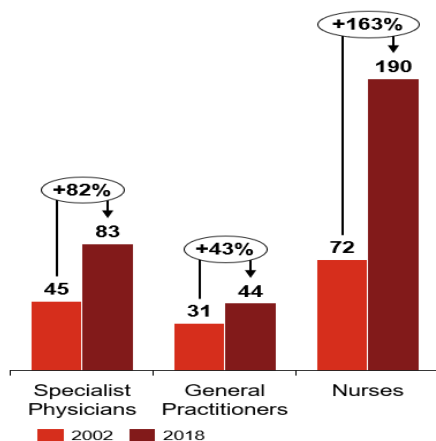


Source: General Directorate of Health Services

## Infrastructure of Healthcare Services

With the launch of Health Transformation Program in 2003, Turkey aimed to reform health services by improving the quality, increasing the efficiency and accessibility of healthcare services. To strengthen human capital in health sector, new medical and dentistry faculties have been established. As a result of the efforts toward capacity building in health sector, the situation regarding number of healthcare professionals has displayed a significant improvement and increased continuously during 2002-2018 (See Figure 56). Entailed with this improvement, number of medical personnel per population has increased for each medical staff type.

**Figure 56. The Change in the Number of Healthcare Professionals, per 1,000 population in Turkey, 2002-2018**



Source: General Directorate of Health Services

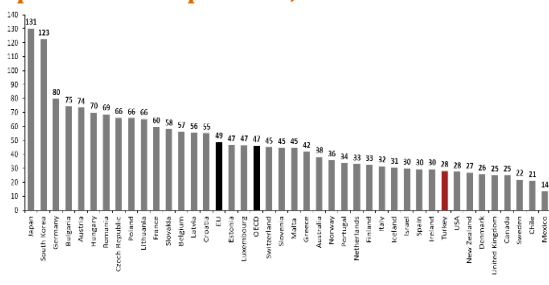
Turkey's total health expenditure has been steadily increasing since 2002 with an annual growth rate of 6.7 percent. As of 2018, total health expenditure amount has reached 35 billion US dollars and constituted 4.4 percent of GDP.<sup>151</sup> Coming to investment expenditure regarding health sector, while the amount was equal to 291 million US dollars in 2002, it reached 2.2 billion US dollars by 2018.<sup>152</sup>

Even though the country has been displaying improvement in terms of healthcare capacity, quality and personnel; there are some areas of development where the country lags behind the OECD average in terms of hospital beds, nurses and midwives, total physician, total dentists per population (See Figures 57, 58, 59 and 60).

<sup>151</sup> Turkstat

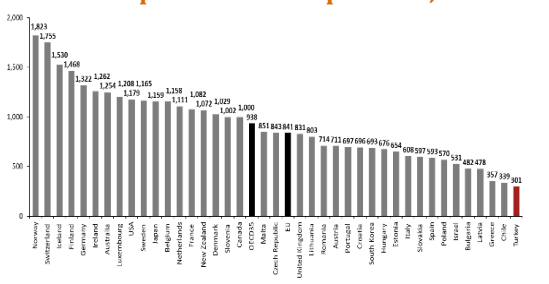
<sup>152</sup> Turkstat

**Figure 57. Turkey: International Comparison of Number of Hospital Beds per 10.000 Population, 2017**



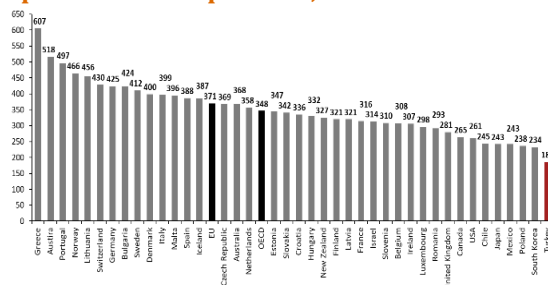
\*Turkey's data belongs to the year 2018. Other countries' data belong to the year of 2017 or nearest. Source: General Directorate of Health Services, OECD Health Data 2019, EUROSTAT Database

**Figure 59. Turkey: International Comparison of Number of Nurses and Midwives per 100.000 Population, 2017**



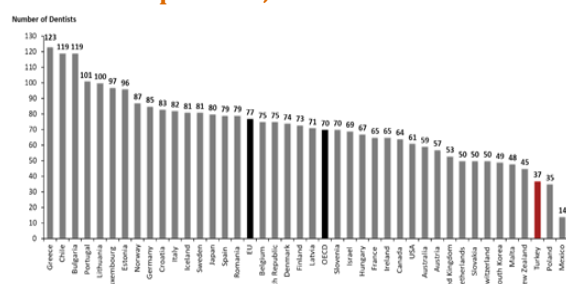
\* Turkey's data belongs to the year 2018. Other countries' data belong to the year of 2017 or nearest. Source: General Directorate of Health Services, OECD Health Data 2019, EUROSTAT Database

**Figure 58. Turkey: International Comparison of Number of Total Physicians per 100.000 Population, 2017**



\*Turkey's data belongs to the year 2018. Other countries' data belong to the year of 2017 or nearest. Source: General Directorate of Health Services, OECD Health Data 2019, EUROSTAT Database

**Figure 60. Turkey: International Comparison of Number of Total Dentists per 100.000 Population, 2017**



Note: Turkey's data belongs to the year 2018. Other countries' data belong to the year of 2017 or nearest. Source: General Directorate of Health Services, OECD Health Data 2019, EUROSTAT Database

## Healthcare Products and Services in Turkey

Turkey is acknowledged as a destination mostly for plastic surgery, hair transplant and dental treatments.<sup>153</sup> However, advanced treatments which require high level of capability, investments in digital technologies and innovative care delivery models have become prominent in the country as well.<sup>154</sup> These procedures can be identified as cardiovascular surgery, radiotherapy,

<sup>153</sup> The Republic of Turkey Ministry of Health

<sup>154</sup> The Republic of Turkey Ministry of Health

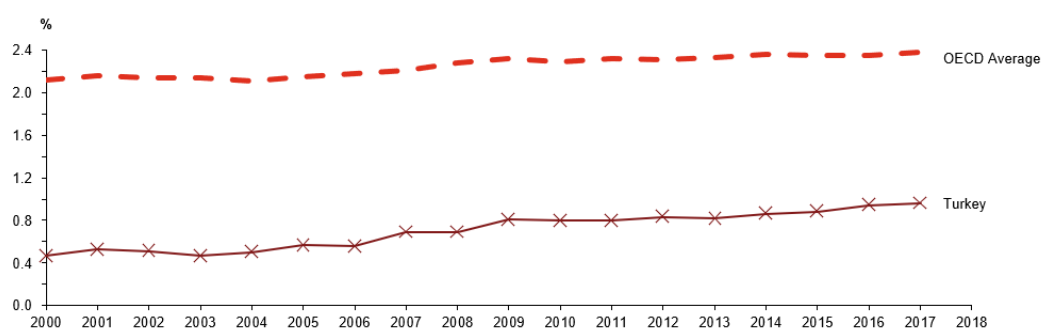
transplantation, IVF applications, eye treatment and dialysis (International Journal of Health Management and Tourism, 2018).

Also, establishment of branch hospitals which are specialized in specific fields of medicine help medical personnel gain expertise and deepen their knowledge in that specific branches. For instance, there are 25 obstetric and child hospitals; 25 ophthalmology hospitals; 19 physical treatment and rehabilitation centers; 12 chest diseases hospitals; 4 child hospitals; 4 cardiovascular diseases hospitals; 3 bone diseases hospitals; 2 occupational diseases hospitals; 2 oncology hospitals; 1 leprosy hospital; 1 orthopedics and traumatology hospital; 1 leukemia (children) hospital and 1 spastic children's hospital in Turkey in addition to general hospitals.<sup>155</sup> Specializations in hospitals also diversify the services that Turkey offers for medical tourism.

### Research and Development (R&D) in the Healthcare Industry

Turkey's total R&D expenditure portrays a fluctuating performance in the last decade, which positions the country at the back rows in terms of health-related R&D expenditure when compared to OECD countries. Although budget for R&D activities was increased from 0.4 percent in 2000 to 0.96 percent of the GDP in 2018; the share of research and development expenditure as of GDP still remains under 1 percent (See Figure 61).<sup>156</sup>

**Figure 61. Turkey: R&D spending as a percentage of GDP**



Source: OECD

#### 3.2.1.4.4 Financing of Healthcare Services

Until the unification of healthcare provision under one general health insurance system, the financing mechanism directly or indirectly collected premiums from the users. With the establishment of Social Security and General Health Insurance Law which was put into force in 2008; larger number of people became insured and financing of healthcare services become separated from service delivery. Under general health insurance system, health services are

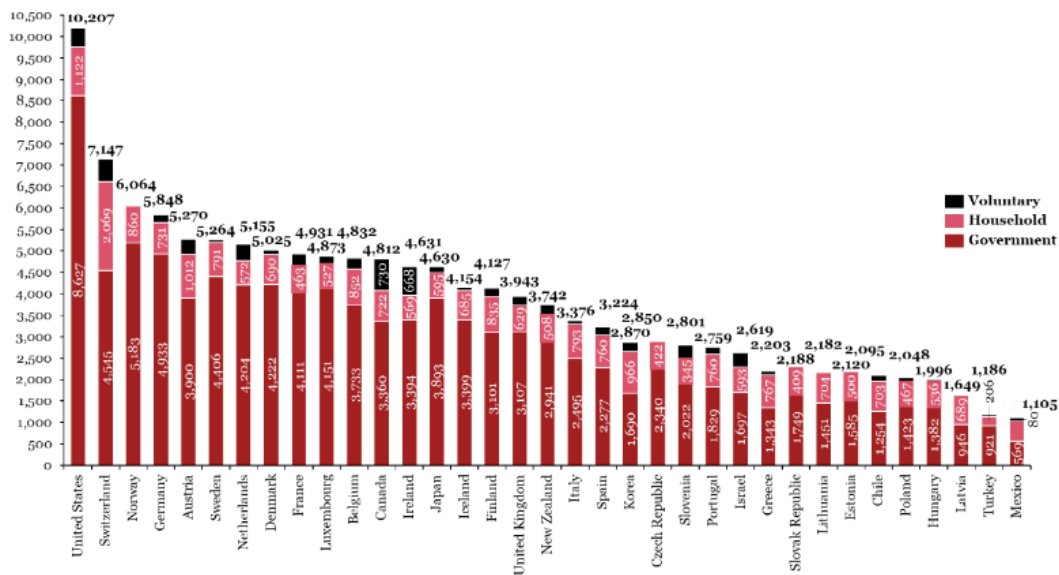
<sup>155</sup> General Directorate of Health Services, 2018

<sup>156</sup> OECD

financed by four resources: (i) those allocated by Social Security Administration, meaning taxes paid by employees and employers; (ii) those allocated from central administrative budget, or in other words, taxes; (iii) out-of-pocket payments; and (iv) those allocated by private health insurance organizations that is private health insurance premiums (Işık, Işık, & Kıyak, 2015).

When current health expenditure per capita is compared to OECD member countries, it is evident that Turkey lags behind with 1,187 US dollars while the average of the member countries was equal to 3,857 US dollars in 2017 (See Figure 62). In addition, proportion of total health expenditure to GDP has been in a decreasing trend since 2002, which shows efficiency of the healthcare system. With the shift into universal healthcare coverage model, both public and private investments and health expenditure per capita has increased since 2002 (See Figure 63).

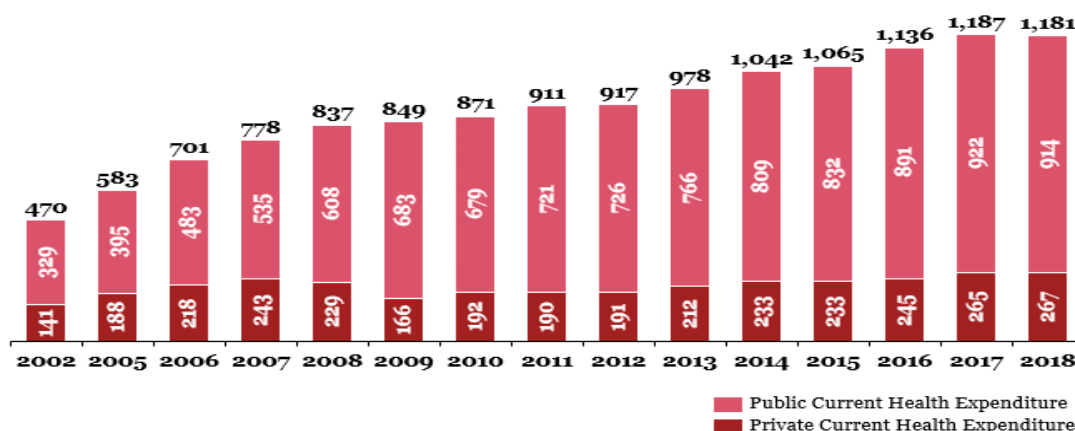
**Figure 62. Turkey: International Comparison of Current Health Expenditure per Capita, PPP US \$, 2017**



\*Turkey's data belongs to the year 2018. Countries' data belong to the year of 2017 or nearest.

Source: TURKSTAT, OECD Health Data 2019

**Figure 63. Turkey: Public and Private Current Health Expenditure per Capita by Years, PPP US \$**



Source: TURKSTAT

### 3.2.1.4.5 Stakeholders in the Medical Tourism Industry

Ministry of Health together with the respective departments determines strategy and objectives for medical tourism; develops regulations and incentives as well as establishes international collaborations and provides guidance. As a recent activity as regards medical tourism, International Health Services Inc. (USHAŞ) is established by the Ministry of Health with the purpose of providing support and coordination in the medical industry by introducing delivery standards and accreditation criteria. In accordance with establishment of public-private partnership (PPP) model, International Health Services Inc. (USHAŞ) is positioned as an intermediary for both public and private hospitals aiming to promote medical tourism facilities. Especially, Ministry of Health has been cooperating with public hospitals and clinics in order to build capacity for city hospitals by aiming to develop medical information systems and health-related services in public sector.<sup>157</sup>

Another important stakeholder under the roof of Ministry of Health is the Health Tourism Department. The Department works with several stakeholders including NGOs working for promotion of medical tourism, hospitals and medical tourism intermediaries. In order to enhance the experience of international patients, the Department has a 24/7 emergency line where medical guidance in multiple foreign languages can be provided. Main objectives of Health Tourism Department can be identified as to plan the services related to health tourism and tourist health, to issue necessary permissions, to carry out operations and procedures related to health tourism in coordination with related institutions and organizations, and to carry out operations and procedures related to health services to be provided in free health

<sup>157</sup> International Health Services Inc. (USHAŞ), 2018

zones.<sup>158</sup> Within the scope of bilateral cooperation in the field of health, Health Tourism Department is responsible to plan and coordinate the processes for international patients by providing assistance and consultancy services under the scope of medical tourism.<sup>159</sup>

The information on other prominent stakeholders in the medical tourism industry in Turkey can be examined in the table below (See Table 20).

**Table 20. Medical Tourism Stakeholders in Turkey**

| Stakeholder                                    | Interest Level* | Role and Function  |
|--|-----------------|--|
| Ministry of Health, Medical Tourism Department | 1 <sup>st</sup> | <u>Policymaking process, regulations:</u> The department establishes acceptance criteria of the foreign patients to plan and coordinate quality of medical services.   |
| International Health Services Inc. (USHAŞ)     | 1 <sup>st</sup> | <u>Policymaking process, regulations:</u> The institution support and coordinate medical tourism activities of public and private sector and provides agency services as well.   |
| Hospitals and Clinics                          | 1 <sup>st</sup> | <u>Healthcare provision, research:</u> Prestigious hospitals such as Acıbadem Healthcare Group, Anadolu Medical Center, DünyaGöz Eye Hospitals, Medicana Hospital, etc. provide medical procedures to incoming patients.   |
| Patients                                       | 1 <sup>st</sup> | <u>Travel for treatment:</u> Foreign patients choose to come Turkey to receive affordable and high-quality treatment whereas Turkish patients prefer to go different countries due to push factors regarding healthcare services in Turkey.                              |
| Turkey Travel Agencies Association (TURSAB)    | 2 <sup>nd</sup> | <u>Accreditation and travel arrangements for healthcare services:</u> The department authorize Class A certification to travel agencies which conduct operations in medical tourism market.  |
| International Patient Unit (UHAB)              | 2 <sup>nd</sup> | <u>Healthcare provision, research:</u> The department supports international patients' administrative processes, exchanges information and provides pre, during and post treatment guidance  |
| Intermediary Institutions                      | 2 <sup>nd</sup> | <u>Coordination and advisory:</u> Intermediaries support communication between international patient and hospital and doctor by guiding the patient through medical tourism process including visa requests, arrangement of accommodation, transfer and travel agencies. |
| Non-Governmental Organizations (NGOs)          | 2 <sup>nd</sup> | <u>Coordination and advisory:</u> NGOs analyze needs of medical tourism in the country and provide training to public institutions promoting healthcare services.  |

\*Interest Level: The term stands for one stakeholder's position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism.

Source: PwC Analysis

<sup>158</sup> Ministry of Health

<sup>159</sup> Ministry of Health, Medical Tourism Department

#### *3.2.1.4.6 Legislation*

In order to realize its potential in medical tourism, Turkey has been working on legislative regulations for the last decade. The Ministry of Health provides regulation, standardization, promotion and planning of healthcare services. Ministry of Trade, Ministry of Culture and Tourism, and Ministry of Foreign Affairs also collaborate with the Ministry of Health in the development and regulation of health tourism. Within this scope, "The Directive on Health Services to be Provided within the scope of Health Tourism and Tourist Health" which was constituted by Ministry of Health in 2013. The directive covers a comprehensive set of topics related to medical tourism such as promotion, information, translation, coordination and pricing of health services. In addition, the protocol regulates the online and traditional advertisement activities. Also, "Promotion of Health Tourism Cooperation Protocol" signed between Ministry of Health and Ministry of Culture and Tourism in 2017. Through the directive and protocol, it is aimed to determine the procedures and principles of health services which will be offered to international patients in public and private health institutions and to establish the framework for advertising activities to be conducted in medical tourism field.

USHAŞ which is a recently established institution running under Ministry of Health contributes to the legislative process indirectly by realizing its advising powers. The institution makes recommendations to the Ministry on policies and strategies for international health services, service delivery standards and accreditation criteria.

On the other hand, another legislative area that directly affects the country's medical tourism development is visa policies toward medical tourists. Although medical tourism visa has become part of the agenda of the related legislative bodies, Turkey does not have such a visa application devoted to medical tourism.

#### *3.2.1.4.7 Marketing*

Turkey has been improving its infrastructure, service quality, medical equipment and personnel capacity in healthcare sector since the implementation of Health Transformation Program. As a result, Turkey has positioned itself as one of the emerging markets in medical tourism as a hub for Europe, Middle East and Central Asia.

In order to further advance medical tourism attractiveness, Turkey has established a medical tourism promotion strategy which is established upon identifying target markets, target products and advertisement methods specified according to target countries and groups. Accompanied with government efforts, multiple stakeholders shared responsibility in promotion of medical tourism. Moreover, 2023 vision of Turkey for medical tourism includes creation of country brand image, advertisement of online medical tourism portal, establishing an IT infrastructure for international patients to track their satisfaction and complaints on medical services provided and streamlining health visa procedures for patients and their companions. For instance, in order to attract international patients and to provide them a

smooth experience, International Patient Support Units (UHDB) and 7/24 available Translation and Call Centers were established.

“Promotion of Health Tourism Cooperation Protocol” which was signed between Ministry of Health and Ministry of Culture and Tourism established the framework for advertising activities in medical tourism. In order to realize the medical tourism potential of the country, it is stated by that two strategic steps including market diversification and product diversification in medical tourism shall be followed. In line with the protocol, globally acknowledged Turkish physicians and medical scientists will be representing the country in the medical activities such as conventions or fairs abroad in order to demonstrate the capacity and capabilities of Turkish healthcare sector. On the other hand, online and traditional advertisement methods such as hosting world-renown media organs, travel agencies and insurance companies are used in order to demonstrate the best practices of medical sector in Turkey.

Furthermore, Medical Tourism Department under Ministry of Health and Social Security Institution has signed International Social Security Agreements with countries such as Germany, Azerbaijan, Netherlands, France and Belgium. The purpose is to receive patients where the payment procedure is supported by the integration of insurance systems of governments.<sup>160</sup> Each agreement shows distinct contents due to the requirements of signing parties. For instance, International Social Security Agreement signed with Germany proposes specific healthcare quality standards for certain treatment types.

In 2019, in order to promote the services offered in the field of international health services USHAŞ-International Health Services institutions was established under Ministry of Health. USHAŞ aims to promote the medical services offered in the country and to coordinate, support and conduct international advertisement activities in health tourism. In order to increase visibility of Turkey, USHAŞ conducts official visits and establishes Health Tourism Coordination Offices and Advanced Diagnosis Centers in the target countries.

Another institution that is related to advertisement of medical tourism is Ministry of Culture and Tourism which provides sponsorships to international medical tourism events such as congresses, conventions, summits and fairs while supporting the country brand image with classified advertising materials. In order to financially support health tourism including medical tourism actors, government incentives such as advertising, promotion and marketing support, patient-road support, overseas unit support and tourism agency support are provided to the related institutions.

Furthermore, citizens living abroad who usually prefer to be treated in their home country can be considered as a marketing tool. As mouth to mouth marketing is a common way to convince patients regarding the quality of doctors and hospital, the citizens living abroad become a significant target group.

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<sup>160</sup> Ministry of Health, Department of Medical Tourism

More detailed information on marketing strategies of Turkey can be found in the table below (See Table 21).

**Table 21. Medical Tourism Industry Marketing Strategy of Turkey**

| Factors that Serve as Marketing Material for Turkey        | Definitions   |
|--|---|
| <b>Quality of Healthcare and Supporting Infrastructure</b> | <ul style="list-style-type: none"> <li>• Initiating Health Transformation Program to develop the infrastructure capacity and quality of the country</li> <li>• Increasing amount of health expenditure and investments both in public and private sector</li> <li>• Operationalization of “International Patient Support Program” which provides translation and guidance services to international patients on 7/24 basis in 6 languages (Arabic, English, Farsi, French, German, Russian)</li> <li>• THY support package provided to Turkish medical tourism agencies and international patients which provide discounted tickets</li> </ul>  |
| <b>Administrative Arrangements</b>                         | <ul style="list-style-type: none"> <li>• Establishment of Health Tourism Department, USHAŞ in order to support and coordinate the activities of health tourism</li> <li>• “Directive on Health Tourism and Health Services to be Provided within the scope of Tourist Health” (2013) which came into force in order to regulate the operations conducted in health tourism sector</li> <li>• Establishment of International Patient Registration System (2011) to gather official record from both public and private healthcare institutions</li> <li>• Establishment of International Patient Units both in public and private health facilities</li> <li>• Establishment of Health Tourism Coordination offices and Advanced Diagnostic Centers by USHAS (International Health Services) in the target countries,</li> </ul> |
| <b>Accreditation</b>                                       | <ul style="list-style-type: none"> <li>• Ownership of 42 JCI accredited hospitals<sup>161</sup></li> <li>• Local accreditation given by the Ministry of Health in line with the “Directive on Health Tourism and Health Services to be Provided within the scope of Tourist Health” has been provided to 123 public health institutions, 668 private health institution, 24 foundation university hospitals, 24 public university hospital and 98 intermediaries<sup>162</sup></li> <li>• Intermediaries conducting operations in the field of international health services are accredited by the Ministry of Health and TURSAB (The Association of Tourism Agencies)</li> </ul>   |
| <b>Traditional and Online Marketing Tools</b>              | <ul style="list-style-type: none"> <li>• In line with the “Promotion of Health Tourism Cooperation Protocol” (2017) world-renowned Turkish doctors and hospitals are being promoted in international medical conventions, summits, congresses and fairs</li> <li>• Conducting government level visits related to health and health tourism</li> <li>• Publishing classified advertisement materials by Ministry of Culture and Tourism</li> <li>• Sponsoring foreign medical fairs and congresses (e.g.: Ministry of Culture and Tourism sponsorship to German Travel Agency Association Congress in 2007)</li> </ul>   |

<sup>161</sup> Republic of Turkey, Ministry of Health

<sup>162</sup> As of 25.02.2020, the number of accredited medical institutions and intermediaries operating in health tourism field has reached to 937. (Source: Ministry of Health)

|  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>• Representing the country in international conventions (i.e.: International Health Tourism Convention arranged in Greece, 2015) Establishment of <a href="http://www.healthtourism.gov.tr">www.healthtourism.gov.tr</a> and <a href="http://www.destinationhealth.gov.tr">www.destinationhealth.gov.tr</a> web-sites to provide trustful information about medical facilities and services provided nation-wide</li> <li>• Publishing “Healthy and Happy” magazine which provides information on health sector in Turkey with English content and its distribution in VIP lounges of international airports and THY international offices</li> <li>• Publishing informative reports to raise awareness on health tourism (i.e.: Health Tourism in All Aspects report series, Medical Tourism Evaluation Report, Turkey Health Guide 2015)</li> </ul> |
|--|--|

Source: PwC Analysis

### 3.2.2 Non-OIC Countries (Germany, India, The US)

#### 3.2.2.1 The Germany Case

##### 3.2.2.1.1 General Outlook

It is globally known that Germany is one of the leading countries in the field of health thanks to its well-established healthcare system and research and development capacity.<sup>163</sup> Especially, investing in the development of healthcare services schemes since the 18<sup>th</sup> century makes Germany one of most reliable countries in the World on the patients’ side. The citizens are under coverage of national health insurance program which allows them to access health services in public hospitals and clinics. Although public hospitals do not require additional payment from the patients, they maintain a good level of service quality. As the number of private hospitals are limited, doctors who develop a certain reputation in their field broadly serve at public institutions.

The medical tourism in Germany does not constitute priority topic at government level. Access to healthcare services is considered as fundamental human right in close relation with the historical background of healthcare provision. Neither the population nor the government contemplates the medical tourism as a tool of economic activity. All international patients coming for treatment in Germany arrange their affairs on their own or some private intermediary agents. However, the treatment they receive has no privilege compared to those living in Germany. Prices does not demonstrate big differences either. Therefore, even though there is no attraction material used for encouragement of foreign patients to meet their medical needs in the country, international patients prefer Germany due to its developed medical infrastructural capacity and expertise of medical personnel. The reasons, on the other hand, why

<sup>163</sup> However, speaking of data-based information about Germany is a challenge as the country does not provide its statistics on the services sector, including the travel related to health data that this report uses it as an indicator to measure the medical tourism size of all the comparison cases. Considering the fact that availability of medical tourism data is also a globally acknowledged challenge that the researchers encounter very often, the situation specific to Germany even more complicates the data-based research. Nonetheless, analytic literature review and field visit to Germany in order to gain insights about the general outlook regarding the medical tourism activities within the country shed light on the research.

German patients consider traveling abroad for medical needs can be summarized as cost of treatments which necessitates out-of-pocket payments and waiting times for specific treatments.

### 3.2.2.1.2 Pull and Push Factors for Medical Tourism

Inbound and outbound patients in Germany are influenced by various factors. Expertise of medical personnel, quality of medical services, the country's image creates motivation for international patients to come to Germany for their medical needs. Also, long waiting time and shortage in healthcare personnel in remote areas constitute push factors why Germans may consider going abroad for medical treatment.

#### **Pull Factors**

Reasons why international patients travel to Germany can be defined as pull factors. In close relationship with the healthcare infrastructure, education system, research and development activities and historical ties with other nations international out of Germany prefer to receive their medical treatments in Germany.

##### **c. Traditional Brand Image**

Starting from the 18<sup>th</sup> century, Germany has been a medical center for patients from all over the Europe. This is mostly due to its reputation in the healthcare industry and the shared history in the region. Germany is home to renowned hospitals with years of experience such as Charité, University Hospital Bonn, University Hospital Frankfurt am Main, University Hospital of Ludwig Maximilian, etc. They offer high diagnostic accuracy, modern treatment methods, significant treatment success in serious diseases and high quality post-operative care and rehabilitation. Especially historical ties with the countries before the union of Germany and the political preferences in the years of World War II makes Germany an outstanding

*"In addition to patients from Gulf countries, mostly patients from Russia, Ukraine, other former Soviet Union countries, Switzerland and Sweden prefer Germany for healthcare services because of their traditional and cultural relationships."*

destination for those who still reckon the history.

##### **d. Quality of Healthcare Personnel**

The roots of German healthcare system date back to the 18<sup>th</sup> century. Healthcare personnel has inevitably developed a special expertise through years. Medical schools such as Heidelberg and Charité (Berlin Medical School) in Germany that are reputable especially across Europe assure the quality of healthcare personnel. Also, doctors' reputation in specific fields attract patients from other countries.

*"There is no database where the numbers of international patients are announced. There is no platform or responsible institution which collect information from hospitals regarding medical tourists. Yet, we know that some of our doctors directly bring patients from Europe."*

#### e. Quality of Medical Services

Although the majority of hospitals are public, the healthcare services are delivered at a certain degree of quality. In order to ensure quality of medical treatments, Institute for Quality and Efficiency in Health Care (IQWiG) is officially founded in 2004 to assess quality and efficiency of healthcare products and services. IQWiG monitors and supports key performance indicators such as quality-based planning of hospital capacities, high success in surgical procedures, pay-for-performance for hospitals and quality of pre and post treatment care. Also, the Federal Joint Committee contributes to defining the rules for access to medication, quality and efficiency of healthcare products and services. The ensemble of these efforts helps increase and maintain the quality of medical services.

*"Government hospitals are not allowed to do marketing or advertisement as the government approach to healthcare services is fundamental right for the public, not anything to be promoted as a service Especially the government hospitals are perceived as institutions for the public use but not for commercial use of international patients. For this reason, in Germany, there is no medical tourism development strategy in which government is involved."*

#### f. Research Oriented Institutions

Germany allocates more than 3 percent of the GDP to research and development expenditure.<sup>164</sup> The investments regarding healthcare consists of 40 percent of the total R&D expenditures.<sup>165</sup> The country is also recognized as an excellent medical research center by establishing specialized research facilities in the healthcare industry. Increased collaboration of academic and non-academic research institutions supports Germany's leading global position in fields of medical technology, pharmaceuticals and medical care. Public-private collaboration in health industry has a great impact on R&D activities.

Germany also spares funds for research centers such as International Agency for Research on Cancer (IARC). There, researches on cancer are conducted in order to develop prevention strategies worldwide. Additionally, the federal government establishes bilateral research projects in the field of health to strengthen international networking. Through know-how transfer in specific diagnostic and therapy methods patients are also motivated to travel to Germany.

#### g. Availability of Medical Services

Patients who suffer from serious diseases and cannot rely on medical care in their home country usually prefer to come Germany where they are able to receive qualified medication and diagnostic processes. International patients are willing to receive some specific treatments such as joint replacement surgery, cancer treatment, surgery for urological diseases, neurosurgical operations and heart surgery in Germany.<sup>166</sup> Furthermore, due to high level of specialization in certain surgical procedures, international patients have preference to receive medication from well-known and highly trained doctors.

#### h. Competitive Prices in Europe

Although medical treatments such as dental care is very expensive and some procedures are only covered by the private insurance, Germany still constitutes a reasonable destination as regards cost of medical services compared to other European countries. Especially the West and North Europe countries have higher prices in serious treatments such as cardiac or neurological operations. Therefore, Germany becomes comparably less costly.

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<sup>164</sup> OECD Gross Domestic Spending on R&D, 2018

<sup>165</sup> Federal Ministry for Economic Affairs (BMWi), 2018

<sup>166</sup> Booking Health, 2019

*“Medical costs are regulated by the government. Prices are a bit high but still affordable compared to the other countries in Europe. That is the very reason why patients from Sweden or Switzerland prefer Germany for their medical needs because their country is much more expensive when they need to pay out of pocket.”*

*“However, it is possible to say that the numbers have dropped since the GCC countries have cut their budget on healthcare expenditures. Germany have now become “expensive option” and therefore, Germany is losing international patients from GCC countries to more affordable countries such as Thailand, Malaysia, Turkey, Poland, Hungary, etc. Yet, still those who can afford the out of pocket expenditures prefer Germany as the country possesses a safe image.”*

### **Push Factors**

Motivations why patients in Germany prefer to travel abroad for medical purposes can be explained through push factors.

#### **c. Waiting Time**

German healthcare system provides all citizens access to healthcare. As a result of national coverage, long waiting time becomes a problem to access to healthcare services especially for those who have public insurance scheme. Those who have private insurance have some advantages regarding access to healthcare in terms of waiting time; although it is still problematic as the number of private hospitals is limited in Germany. In order to reduce waiting times, policymakers have initiated a reform in 2016 aiming to improve medical services provision comprehensively.

*“In Germany, there is shortage in number of doctors which adversely affects the waiting time in serious surgeries such as eye, heart, neurology, etc.”*

*“Let me tell you my personal experience. I had had cardiac problems. I am insured with the biggest insurance fund here. I had had my appointment with the GP. Then, he had addressed me to have MR which had been made 6 months later. Do you see the waiting time just for the MR? After that, I would have needed to make another appointment with the doctor to show the results and plan my treatment. I knew that would have taken many more months... I decided to go to another country to consult my health problem and get my treatment.”*

#### d. Shortage in Healthcare Personnel in Remote Areas

Germany has 4.1 physicians per 100 thousand population which is considered by OECD as an average capacity in order to supply the demand driven by the population needs.<sup>167</sup> However, the number of physicians is not normally distributed across the country.<sup>168</sup> Therefore, the difference in the distribution of physicians in rural and urban areas limits the provision of healthcare services in rural areas. Geographical differences create challenges in Germany in terms of unmet medical needs or insufficient care provision. Also, it consequently causes a decrease in the efficiency of overall healthcare provision in overall. Additionally, the capacity of the specialized hospitals is not sufficient enough to meet the needs of populations in some rural areas and therefore it further complicates the provision of healthcare services.

*“...healthcare capacity in Germany is not sufficient nowadays due to shortage in doctors, nurses and long waiting times.*

*The majority of hospitals in Germany is public hospitals therefore it is not so possible to promote international services. There are very few private hospitals in Germany, but not all hospitals belong to government. There are church hospitals, community hospitals, government hospitals, university hospitals and private hospitals.”*

##### 3.2.2.1.3 Healthcare Provision Model in Germany

Similar to the United States, Germany is a federal and democratic republic which is composed of states. Germany applies the Bismarck Model<sup>169</sup> of healthcare provision which adopts universal coverage. In this system, approximately 88 percent are covered by statutory health insurance (SHI) while almost the rest of the population is voluntarily included in private insurance scheme.<sup>170</sup> SHI which can be interpreted as the public scheme, is mandated for employees and pensioners with less than a certain level of income<sup>171</sup>, students and additional insured population and it is composed of several different sickness funds. While membership is compulsory in the statutory health insurance<sup>172</sup>, the membership for privatized insurance<sup>173</sup> is voluntary for those with an income of more than this threshold.

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<sup>167</sup> OECD, 2016

<sup>168</sup> OECD, 2019

<sup>169</sup> The Bismarck Model, which is invented by Bismarck, provides healthcare for everyone. Although the model does not aim at making profit from healthcare services, private doctors and hospitals are allowed to operate within the system.

<sup>170</sup> <https://www.howtogermy.com/pages/healthinsurance.html>

<sup>171</sup> Those who earn less than approximately 6 thousand US dollars per month are insured with SHI

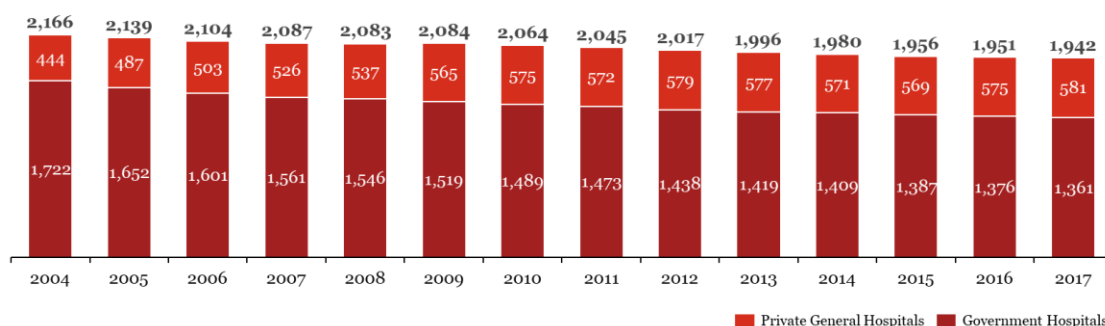
<sup>172</sup> Approximately 70 million people insured with the SHI

<sup>173</sup> Approximately 10 million insured with private insurance

*“There are very few private hospitals in Germany, but not all hospitals belong to government. There are church hospitals, community hospitals, government hospitals, university hospitals and private hospitals.”*

Healthcare providers in Germany is differentiated between each other by serving such as public, private, church, community and university hospitals. Although the number of private hospitals has been in increase in the last years and the number of government hospitals has shown a decrease in the last decade, there is still domination of non-profit institutions in the sector. The hospitals which belong to government consists of approximately 70 percent of total of 1,942 hospitals in 2017 (See Figure 64)<sup>174</sup>.

**Figure 64. Number of Hospitals in Germany, 2004-2017 by Ownership Type**



Source: Statistisches Bundesamt, Statista

## Infrastructure of Healthcare Services

Germany ranks in the 4<sup>th</sup> place on health expenditures as a percentage of GDP among OECD countries. In 2016, Germany spent almost 11 percent of its GDP on healthcare.<sup>175</sup> With such high level of spending on healthcare, Germany establishes good access to medical services by supporting widely available infrastructure, high number of health professionals and relatively comprehensive coverage for health-related costs.

The Federal Government is responsible to maintain hospital requirements in order to meet medical needs of the population such as hospital beds and intensive care units. In line with this objective, public-private partnerships are established with the collaboration of university hospitals such as Schleswig-Holstein and North Rhine-Westphalia to build new treatment centers for cancer, cardiac diseases, etc. (Schaefer & Volland, 2009). Collaborations between the public, private and university hospitals also improve standards in the healthcare services. International patients, as the local population, benefit from all the improvements that the

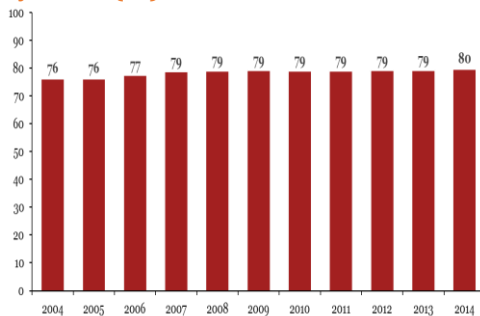
<sup>174</sup> Statistisches Bundesamt

<sup>175</sup> OECD, 2018

Federal Government and other stakeholders in the healthcare industry make.

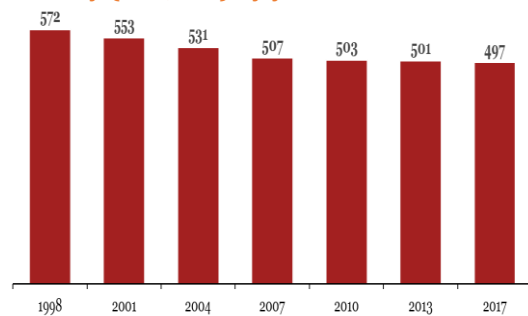
Even though the healthcare expenditure as of GDP is relatively high compared to OECD countries, Germany has nevertheless experienced a decrease in the total number of hospitals. Decline in the total number of hospitals results in capacity problems due to high level of bed occupancy rate in the actively working hospitals (See Figure 65 and 66). Patients who do not prefer to wait the line in the public hospitals address themselves to private hospitals although they have to pay out of pocket unless they are enrolled in private insurance scheme. Thus, share of private hospitals in the industry has been increasing.

**Figure 65. Bed Occupancy Rates in Germany by Years (%)**



Source: OECD

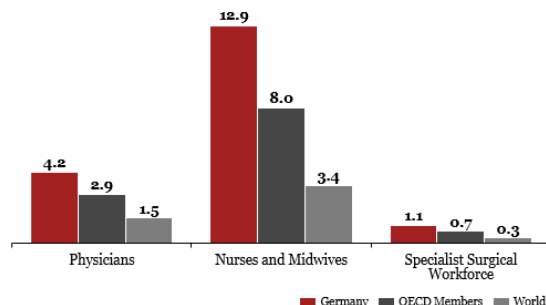
**Figure 66. Number of Hospital Beds in Germany (in 1,000) by years**



Source: Statistisches Bundesamt, Statista

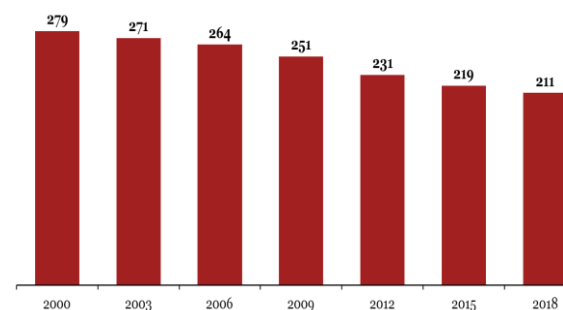
As much important as the number of hospitals, the number of medical personnel also helps grasp the general picture as regards the healthcare infrastructure. In Germany, the number of health professionals per thousand population is significantly higher than the world and OECD averages (See Figure 67). As a proof of investments in the healthcare sector, Germany steps forward with its ratio of physicians; of nurses and of specialists per thousand population. On the contrary, it is argued that the density of healthcare personnel is not even among urban and rural areas. However, increasing number of total physicians and healthcare personnel indicates continuous improvement for further capacity building in health industry (See Table 22).

**Figure 67. Germany: Health Professionals per 1000 Population, 2015**



Source: World Bank

**Figure 68. Germany: Density of employed doctors (inhabitant per doctor)**



Source: Bundesärztekammer

**Table 22. Number of Healthcare Professionals by Years, All Sectors in Germany**

|                                    | 2000           | 2009             | 2011             | 2013             | 2015             | 2017             |
|------------------------------------|----------------|------------------|------------------|------------------|------------------|------------------|
| <b>Specialist Physicians</b>       | 293,552        | 324,471          | 340,544          | 355,670          | 369,648          | 383,416          |
| <b>Physiotherapists</b>            | 78,000         | 139,000          | 154,000          | 169,000          | 181,000          | 188,000          |
| <b>Practising Caring Personnel</b> | 205,247        | 269,924          | 303,039          | 326,442          | 371,398          | 404,338          |
| <b>Total Physicians</b>            | <b>576,799</b> | <b>733,395</b>   | <b>797,583</b>   | <b>851,112</b>   | <b>922,046</b>   | <b>975,754</b>   |
| <b>Total Dentists</b>              | 61,462         | 65,726           | 66,974           | 68,328           | 69,969           | 70,445           |
| <b>Pharmacists</b>                 | 47,907         | 49,892           | 50,656           | 51,431           | 52,568           | 53,480           |
| <b>Nurses</b>                      | 821,000        | 935,000          | 953,000          | 995,000          | 1,033,000        | 1,069,000        |
| <b>Midwives</b>                    | 17,000         | 21,000           | 22,000           | 22,000           | 23,000           | 24,000           |
| <b>Total Personnel</b>             | <b>947,369</b> | <b>1,071,618</b> | <b>1,092,630</b> | <b>1,136,759</b> | <b>1,178,537</b> | <b>1,216,925</b> |

Source: OECD

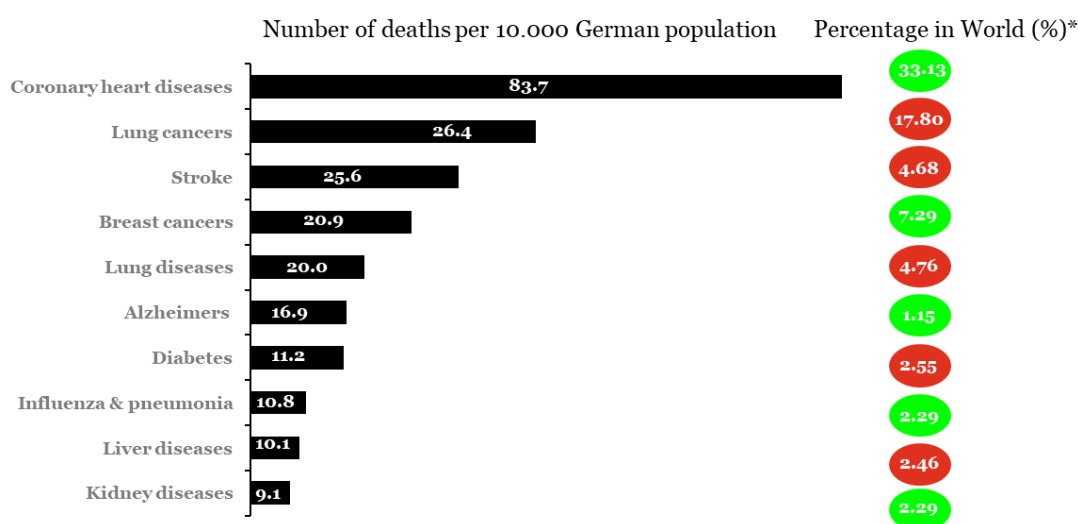
## Healthcare Products and Services in Germany

Since Germany does not officially target at medical tourism as an industry to develop, all medical services and products available for the population are also offered to international patients as well with no differentiation. Hospitals and clinics in Germany offer a wide range of medical services due to the established healthcare infrastructure. Medical procedures such as joint

replacement surgery, cancer treatment, surgery for urological diseases, neurosurgical operations, heart surgery, fertility treatment, orthopedic surgery, alternative treatment for many maladies and ophthalmology are among the prominent areas of treatment. Recently, cosmetic procedures and dentistry become more common among international patients especially travelling from countries from Europe and the US (Springer, 2018).

In close relation with the most frequently seen diseases in the country, the healthcare system develops its response capacity. For instance, in Germany, some diseases which are triggered by the unhealthy consumption behaviors such as alcohol or tobacco consumption, are seen more often (See Figure 69). The reason why Germany becomes reliable on serious disease treatments such as cancer, heart disease, orthopedics can be also related with this in addition to their research and development activities in the health sector.

**Figure 69. Leading Causes of Death in Germany**



\*If the percentage of death in Germany is higher than the global population share, it is highlighted with red corresponding to the cause of death. Otherwise, it is highlighted with green regarding lower percentage of leading causes of death in the population.

Source: WHO, 2017, PwC Analysis

## Research and Development (R&D) in the Healthcare Industry

The R&D spending as a share of GDP is significant in Germany, which is estimated as 3.02 percent of GDP<sup>176</sup>, many industries including manufacturing are highly developed. As a result of R&D investments in the healthcare sector (40 percent of total R&D expenditure including

<sup>176</sup> World Bank, Statista, 2017

pharmaceutical research at universities and scientific institutions<sup>177</sup>), German medical technology companies are also highly innovative.

Germany holds a growing market for innovative medical technology which enhance healthcare services. Medical devices that are “made in Germany” are dominating the international markets with almost 70 percent of export value.<sup>178</sup> Also, pharmaceutical sector in Germany is as much advanced as the medical devices industry. Germany’s global pharmaceutical companies such as Bayer and Boehringer Ingelheim also contribute to the research and development ecosystem of the country.

#### *3.2.2.1.4 Financing of Healthcare Services*

There are two types of insurance schemes in Germany which can be categorized as public and private insurance programs. On one hand, the Statutory Health Insurance is the compulsory scheme which can also be called as the public insurance. SHI comprises of many sickness funds which are non-for-profit and non-governmental insurance programs. The SHI is financed through three pillars: (i) income-related contributions, (ii) tax subsidy, (iii) additional premiums. On the other hand, the PHI (private health insurance) is not compulsory for the population. Those who wish to contribute into the system can benefit from some procedures at private hospitals within the scope of their coverage.

As for the services provided to international patients, there is no distinguished tariff. The international patients are subjected to pay the listed prices as if they are enrolled into the PHI. Yet, being the only difference in the payment, physician’s performance fee is requested from international patients as additional payment. On the other hand, within the scope of bilateral agreements regarding health insurance collaborations, patients from the 28 member states of European Union, Iceland, Norway and Switzerland who have European Health Insurance Card become eligible for free access to some specific healthcare treatments in hospitals and clinics in Germany.<sup>179</sup>

#### *3.2.2.1.5 Stakeholders in the Medical Tourism Industry*

One of the main stakeholders in German healthcare system is the Federal Ministry of Health as its activities are composed of enacting policy regulations, ensuring effectiveness of health insurance and improving overall quality of healthcare system. Although Federal Ministry of Health has been actively coordinating health related issues, the governmental structure lacks a medical tourism framework due to legal regulations. The activities based on policymaking process, regulations, insurance coverage and medical pricing strategies are provided by Federal

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<sup>177</sup> Federal Ministry for Economic Affairs (BMWi), 2018

<sup>178</sup> Germany Trade&Invest, 2018

<sup>179</sup> The Federal Government, 2019

Ministry of Health. Whereas, other services such as promotion, research capacity, travel arrangements and advisory for administrative processes are supported by the different actors.

Federal Ministry of Health has some efforts to improve coordination between international experts and enabling network for new partnerships under Global Health Hub Germany. With the establishment of Global Health Hub Germany, a Germany based network is created with the collaboration of health organizations, foundations, non-governmental organizations, academia and healthcare industry in order to move forward in global health issues such as tropical diseases, cancer, etc. and advance the digitalization of healthcare provision.<sup>180</sup> Furthermore, one of the other regulative body for healthcare sector, Federal Ministry of Economics and Technology funds Innovative Medical Tourism in Germany project for ensuring quality standards, improving collaboration between key stakeholders and advances in medical sciences.

Especially, healthcare providers are considered as important actors serving to improve healthcare services. The hospitals in Germany are composed of public, private, church, community and university hospitals. International patients are able to get information directly from international patient units in these hospitals since Germany has no formal institution responsible of collecting data about international patients and relevant procedures. At state level, for instance, Berlin has online platforms on tourism which are the only official channels that international patients can access (e.g. Health Capital Berlin Brandenburg and Visit Berlin). These channels provide comprehensive information about medical facilities and specialized treatments besides tourism opportunities in Berlin. However, these online platforms do not serve as a promotion channel that addresses foreign patients to hospitals and they do not serve to promote medical tourism at country level. There is, for example, competition between the like platforms of other states such as Frankfurt, Hamburg, Munich, etc. Additionally, there are few medical tourism agencies that coordinate necessary additional services for clinic reservation, doctor arrangement, transportation and hotel reservation. Due to limitations in overall management structure in Germany, the stakeholders' roles are distinguished from each other which is illustrated in the table below to clarify stand of each actor (See Table 23).

**Table 23. Medical Tourism Stakeholders in Germany**

| Stakeholder  | Interest Level* | Role and Function  |
|--|-----------------|--|
| Hospitals and Clinics  | 1 <sup>st</sup> | <u>Healthcare provision</u> : Public hospitals such as Charité Clinical Center, Vivantes Hospital, German Heart Center, Ernst von Bergmann Hospital, etc. provide qualified medical treatment for both local and international patients. |
| Online Tourism Promotion Platforms (Visit Berlin, Health Capital Berlin Brandenburg, | 1 <sup>st</sup> | <u>Advisory</u> : The platforms inform international patients by providing a list of hospitals in the city.  |

<sup>180</sup> Federal Ministry of Health

|  |                 |   |
|--|-----------------|---|
| KölnTourismus, Hamburg.de, etc.)             |                 |   |
| Travel Agencies                              | 1 <sup>st</sup> | <u>Travel arrangements and advisory:</u> Intermediary agencies help patients from abroad to organize the hospital, transportation and accommodation facilities.   |
| Patients                                     | 1 <sup>st</sup> | <u>Travel for treatment:</u> Foreign patients prefer to travel to Germany in order to receive treatment whereas German patients seek medical treatments in different countries regarding push factors in Germany.   |
| Federal Ministry of Health                   | 2 <sup>nd</sup> | <u>Policymaking process, regulations:</u> The department is responsible for improving healthcare services by regulating policies and introducing strategical programs for healthcare quality. However, the Ministry has no direct role on the medical tourism industry. |
| Federal Ministry of Economics and Technology | 2 <sup>nd</sup> | <u>Funding, regulations:</u> The department supports medical tourism by establishing medical science projects to improve the medical procedures received by patients. However, the Ministry has no direct role on the medical tourism industry.                         |
| International Research Centers               | 2 <sup>nd</sup> | <u>Education, research, healthcare provision:</u> The institutions provide effective healthcare solutions in order to support health ecosystem with technological developments, promote health research and enable intersectoral cooperation.                           |

\*Interest Level: The term stands for one stakeholder's position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism.

Source: PwC Analysis

### 3.2.2.1.6 Legislation

Among all sectors, medical sector is one of the most regulated industry in Germany. Federal Government aims at equity in access to healthcare services while ensuring the universal coverage for all through their regulations. Although the government strategy lacks medical tourism perspective, there are still some regulations of Ministry of Health which consequently create impact on the medical tourism.

Healthcare is not considered as a line of business to make profit in Germany. Even though healthcare industry is highly competitive among physicians all around the world, German government restricts any competitive business activity tied to healthcare services. Therefore, the government takes precautions for all intentions that may lead the sector to unfair competition. For instance, according to the Code of Conduct for Physicians, the focus of physicians should be to heal patients and protect public health and not to generate financial profit with their medical decisions.<sup>181</sup> This approach also affects the price policy for international patients by enabling them to pay the same amount as the local population.

In order to advocate public health, German Law on Advertising in the Field of Healthcare

<sup>181</sup> Code of Conduct for Physicians, Paragraph 1, Section 1, Sentence 1: Medical profession is not a business but a free profession.

(Heilmittelwerbeengesetz, HWG) is introduced. The law prohibits marketing for medical services marketing to avoid unfair competition which would result from advertisement of medical treatments, pharmaceuticals and medical devices (Mannheim Institute of Public Health, 2016). This also indirectly affects medical tourism industry as hospitals cannot advertise their facilities and capabilities.

#### *3.2.2.1.7 Marketing*

Federal Government's healthcare policies have been evolved with the purpose of providing accessible healthcare services. Since profit concern is kept out of healthcare system in Germany, the government prohibits mechanisms that may lead to competition and political intentions regarding secure access to healthcare. Therefore, Federal Government restricts medical tourism marketing; as a result, the healthcare providers are not able to reach possible patients by advertisements. By the means of being a social state, getting healthcare services is defined as a right which prioritizes German citizens rather than foreign patients due to limitations in infrastructural capacities and long waiting times. Thus, marketing strategies that target especially foreign patients are considered as a "violation against the right of citizens to healthcare services". According to the German Law on Advertising in the Field of Healthcare (Heilmittelwerbeengesetz, HWG), the medical profession is not a business and physicians are not devoted to generate financial profit from healing patients and protecting public health (Mannheim Institute of Public Health, 2016). For this reason, marketing strategies that service providers such as hospitals and clinics can use are tied to medical service quality in the hospitals and clinics; medical expertise; knowledge; hospital and doctor reputation; and historical and cultural affiliations with other countries.

Regardless of limitations in marketing resources, approximately 224 thousand international patients travel to Germany in order to receive medication (International Medical Tourism Journal, 2018). One of the reasons behind why Germany positioned as an attracting destination has rooted from traditional brand image created in Europe region. In the 18<sup>th</sup> century, the first renowned hospitals such as Charité and University Hospital Bonn were established in Germany. High level of expertise in complex health problems and innovative research capabilities have been affecting patients' point of view about Germany as medical tourism destination. Especially, patients from Russia, Ukraine and other countries of the former Soviet Union prefer to come Germany mostly due to the cultural habits based on the traditional image of Germany offering first-class medical facilities, privileged healthcare services and highly trained doctors. Additionally, there are patients who would like to receive treatment particularly from German professionals having specialization in certain surgical procedures. Through word of mouth marketing strategy and online information platforms about hospitals, these practitioners have become recognizable internationally forming Germany's trustworthy reputation. For instance, online channels such as Health-Made in Germany, Visit Berlin, Medical Fly, etc. have been serving with informing purposes rather than marketing for foreign patients by presenting list of health institutions and available specialized treatments.

The continuous developments of innovative products in the fields of biotechnology, pharmaceuticals and medical equipment is supported by international marketing of Germany as a business and technology center. In order to develop an effective marketing strategy, the target customers need to be segmented by offering right service or product. For instance, the demand for highly innovative technologies and diagnostic, therapeutic and minimally invasive equipment remains high and German manufacturers take advantage from the international demand by exporting their products worldwide.<sup>182</sup> As a result, Germany uses its R&D capacity, knowhow and advanced technologies that they developed in the healthcare industry as a tool to market their capabilities, products and services in the related sectors.

The business models have transformed into delivering digital solutions such as e-health via mobile apps, online interaction between doctors and patients with teleconsultation, process automation through robots, electronic appointment system and patient flow management by performance dashboards.<sup>183</sup> Germany is defined as digital hub as one of the trendsetter countries in healthcare industry. Within this context, use of technology in healthcare provision in Germany composes the advanced marketing tools in a way. In addition to that, traditional marketing tools such as global conferences and health magazines that are crucial for healthcare industry. All of the indirect marketing strategies of Germany are shown in table below (See Table 24).

**Table 24. Medical Tourism Industry Marketing Strategy of Germany**

| Factors that Serve as Marketing Material for Germany | Definitions   |
|--|---|
| <b>Quality of Healthcare</b>                         | <ul style="list-style-type: none"> <li>• Highly developed medical service quality</li> <li>• Good reputation of provided services as a traditional region in Europe</li> <li>• Internationally well-known hospitals having International Patient Department that provides information directly to foreign patients</li> <li>• Valuable brand image of German med-schools</li> <li>• Expertise in complex medical surgeries</li> <li>• Investments in biotechnology, pharmaceutical and medical equipment</li> <li>• Professional collaborations between international hospitals and academics</li> </ul>  |
| <b>Technological Advancement</b>                     | <ul style="list-style-type: none"> <li>• Availability of medical technologies such as telemedicine, model-based therapy, in-vitro diagnostics (IVD), regenerative medicine, etc.</li> <li>• Development of mobile medical apps that provides emergency call services for patients</li> <li>• Establishment of online interaction enabling teleconsultation and monitoring of chronic disease patients</li> <li>• Optimization with automated processes such as robot assisted surgeries, hospital logistics robots, electronic appointment system, etc.</li> <li>• Availability of digital diagnostic tools, disease prevention techniques and virtual reality for pain management</li> </ul> |

<sup>182</sup> Germany Trade and Invest (GTAI), 2019

<sup>183</sup> German Managed Care Association (BMC), 2018

|  |   |
|--|---|
| <p><b>Traditional and Online Marketing Tools</b></p> | <ul style="list-style-type: none"> <li>• Promotion of international medical conventions, summits, congress and fairs by sponsorships</li> <li>• With high-tech strategy, Berlin is identified as “Medical Valley” where Capital City Congress of Medicine and Health takes place annually with the international participants</li> <li>• Mobility of highly experienced doctors to perform surgeries as an example for cooperation with related countries</li> <li>• Online platforms that provide list of German hospitals where specific data such as their capacity, common specialties, doctor profiles etc. are provided</li> <li>• Publishing international health and medical science magazines</li> </ul> |
|--|---|

Source: PwC Analysis

### 3.2.2.2 The India Case

#### 3.2.2.2.1 General Outlook

Health tourism in India is an old practice. Before the conventional western medicine has been globally adopted by the world, traditional medicine has been widely practiced and continues to be part of a daily life in India. For instance, Ayurveda, being one of India’s traditional healing practices with minimum of 5 thousand years of history, has attracted many people within and out of country to seek a remedy for their physical, physiological and spiritual needs. An increasing curiosity from the developed countries towards yoga and Ayurveda have converted these traditional techniques into more westernized format by enabling them to be practiced by a larger audience. India, therefore, remains as an appealing spot for health tourism for a specific community growing day by day.

On the other hand, with the spread of western practices and techniques around the world, India has developed a noteworthy capacity in the health sciences and become one of the leading countries in use of advances technology in healthcare provision. In relation with improvements in the medical sector, the Indian government has become one of the first authorities in Asia to recognize the potential of medical tourism. The government support has also played a crucial role in the expansion of health tourism sector in India. This support included the improvement of airport infrastructure and execution of a marketing strategy to promote health tourism and medical treatment abroad.

As a result of these efforts, India has become a leading example with its medical tourism performance, with 305 million US dollars of export ranking in the 10<sup>th</sup> place in 2017 (ITC Trademap, 2017). Also, foreign tourist arrivals for medical purposes have reached almost five hundred thousand people by showing an increase of 45 percent from 2015 to 2017 (Open Data Platform India).<sup>184</sup> India, with this significant growth in the healthcare industry, secures its position as an important destination for medical tourism. The country is globally recognized with its excellence in health sector offering advance technologies in high quality of medical

<sup>184</sup> 495,056 persons visited India for medical purposes according to the Open Data Platform of India.

services at affordable prices. Hospitals and clinics accredited with international standards provide latest technologies, techniques and methods for healthcare services.

India's competitiveness in the medical tourism industry relies on advantages such as cost effectiveness, quality of medical services, diversity of tourism destinations and technology. India is especially known with its medical capacity in cardiovascular surgery, organ transplants, eye surgery etc. Patients from developed economies such as the United Kingdom and the United States demand treatments from such advanced healthcare segments in India. Also, patients from India's neighboring countries such as Bangladesh, Pakistan and China prefer India for treatment for several other reasons including geographical proximity, cost, established healthcare system and use of advanced technology and tools.<sup>185</sup>

#### *3.2.2.2.2 Pull and Push Factors for Medical Tourism*

The major pull factors which motivate patients to travel to India in order to receive medical services can be listed as cost advantages, use of advance technology in medical services, cultural and touristic activities, health tourism, etc. whereas, the reasons behind why Indian patients travel to other destinations to meet their medical needs can be listed under push factors. It is possible to consider push factors as expertise of medical personnel and quality of medical products in the developed countries.

#### **Pull Factors**

Pull factors indicate the motivation regarding preferences of patients from other countries to receive treatment from medical facilities in India.

##### *a. Cost*

As the cost of medical treatment in developed countries remains high, the Indian medical tourism sector provides cost-effective medical practices. As a result of low labor costs, India manages to keep the prices competitively low compared to other countries. for example, treatments in India help saving between 65-90 percent of the cost compared to similar services in the United States.<sup>186</sup> On average, a knee replacement surgery in the US costs 35,000 US dollars compared to 6,600 US dollars in India. Similarly, a rhinoplasty surgery, on average costs 6,500 US dollars in the US, whereas the cost on average is 2,400 US dollars for India.<sup>187</sup>

##### *b. Reputation of Physicians and Medical Expertise*

Indians are the biggest nationality of foreign medical students in the United States.<sup>188</sup> The medical students who return to India, or medical practitioners who have lived in the US and

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<sup>185</sup> Ministry of Tourism declares that nationality-wise estimates of Foreign Tourist Arrivals (FTAs) in 2017 lists the first three countries as Bangladesh with 221 thousand 751 medical tourists, Afghanistan 55 thousand 681 and Iraq 47 thousand 640.

<sup>186</sup> Patients Beyond Borders, Statista

<sup>187</sup> Medical Tourism Association, Compare Prices

<sup>188</sup> Mattoo, Aaditya, and Randeep Rathindran. "How Health Insurance Inhibits Trade In Health Care." Health Affairs,

returned home, attract medical tourists who would like to have assurance on the quality of medical care they will receive.

India also offers expertise in areas such as cardiac procedures, orthopedic procedures, neurological and spinal surgery, as well as cosmetic surgery.<sup>189</sup> Dental treatment is another popular service demanded by medical tourists coming to India. Moreover, India has focused on the development of cord blood bank facilities as cord blood as a rich source of stem cells promises to become a critical input for many surgical treatments. Having expertise in many fields helps India build a reputation as a top health tourism destination, as prospective patients weigh expertise almost more than any other component in their decision-making processes.

#### *c. Use of Advanced Technology*

India considers the technology as a tool for economic development. The government support scientific research and technology development by encouraging researchers and students going abroad for academic studies. Not only in IT, India has developed a brand name but also in health sciences they bring novelties. Use of latest technology they develop or adopt in their medical services becomes one of their strengths in the international area.

#### *d. Tourism Destination Attractiveness*

The availability of various touristic opportunities draws attentions of patients who like to travel for their medical needs. India is one of the biggest tourist attractions of the world, with number of foreign tourist arrivals reaching 10.5 million people in 2018.<sup>190</sup> With its rich culture, abundance of cultural activities, exotic locations and iconic landmarks, India offers a world-class tourism experience prior to the treatment or following the treatment. Moreover, the medical tourist visa granted to patients also permits their family members to travel alongside them.

#### *e. Wellness Tourism*

Besides conventional medical practices, India has an additional branch of traditional wellness treatments. India has a unique culture and history for ancient traditional treatment methods such as Ayurveda, Yoga, Unani, Siddha and Homeopathy (AYUSH). These traditional treatment methods are widely accepted as alternative treatments around the globe with increasing popularity. For wellness tourism, key attractions are Ayurveda, Naturopathy and Yoga, for which India offers an unmatched expertise. Thus, it is an essential component of health tourism for India, providing a unique competitive advantage over other medical tourism destinations.

#### *f. Cultural Affinity and Use of Common Language*

Countries most often attract their own diaspora population abroad. Inbound movement is highly motivated by attachment to home country, common spoken language and familiarity. In medical tourism, motivated with these factors, people living abroad flow to India. India especially

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<sup>189</sup> ITC, Medical and Wellness Tourism: Lessons from Asia

<sup>190</sup> Tourism Statistics at a Glance 2019 ,Government of India, Ministry of Tourism

attracts a large number of its expatriates who have migrated to the United States, the UK or Europe.

Moreover, considering the fact that there is historical colonial ties with the UK, India shares the language in common which poses another important element to facilitate the communication with international patients. The use of common language enables individuals to follow their medical treatments and procedures in transparency and clarity by securing the quality standards.

### **Push Factors**

Push factors indicate the motivations regarding preferences of patients in India to receive healthcare in other countries.

#### *a. Reputation of Medical Personnel in the Established Destinations*

India has strong ties with countries such as the United States and the United Kingdom mostly due to Indian students studying in these countries. Successful Indian originated citizens of these countries and other medical personnel who have developed a certain reputation due to their success in their fields attract patients from India despite the high prices of medical services. Especially, people from the high-income level in India prefer to meet their medical needs from doctors who have developed reputation in issued countries where established healthcare provision is available.

#### *b. Standards in the Pharmaceutical Sector*

India's generic drug production has been criticized many times for not being able to abide by international standards. Medication is the most important complementary tool for treatments. Therefore, it is essential to obtain the quality and safety in the medication. To exemplify, the United States Food and Drug Administration (FDA) over the last decade has cited Indian pharmaceutical companies for not complying with the Current Good Manufacturing Practices.<sup>191</sup> This is why, in line with Indian citizens seeking for higher quality services in their medical treatments, the inability of pharmaceutical companies to abide by the rules of international regulations is another push factor, as patients prefer access to advanced drugs.

### **3.2.2.2.3 Healthcare Provision Model in India**

The governance and operations of the healthcare system in India has been divided into Union and state governments due to the country's federal government system. The Union Ministry of Health & Family Welfare is responsible of national healthcare system as well as setting guidelines and standards; control and prevention of diseases; promotion of good health practices; and establishing programs such as the National Tuberculosis Program, National AIDS

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<sup>191</sup> Current Good Manufacturing Practices (cGMP) are the Food and Drug Administration's (USA) formal regulations regarding the design, monitoring, control, and maintenance of manufacturing processes and facilities

control program.<sup>192</sup> State governments, on the other hand, are responsible for hospital administration, general sanitation and hygiene. For more comprehensive topics such as medical education, population control, quality of the manufacturing of pharmaceuticals, the Union and the State governments act in collaboration.

India's current healthcare system consists of a three-tiered healthcare system<sup>193</sup> composed of both private and public healthcare providers (See Figure 70).

**Figure 70. Three-tier Healthcare systems of India**



\*CHC: Community Health Centers

\*\*PHC: Primary Health Centre

\*\*\*SHC: Soil Health Card

Source: *Health systems in India* M Chokshi, B Patil, *Journal of Perinatology* (2016)

In complementary to the initiation of the three-tiered healthcare model, it was also suggested to place health workers in both rural and urban areas on government payrolls, in order to limit the need for private practitioners. This was anticipated to provide healthcare services to all citizens regardless of their income level and their residency location. However, the lack of infrastructure and capacity of the public healthcare systems, have led to private healthcare models becoming more prominent in India.

### Infrastructure of Healthcare Services

Chronic poverty and significant inequality in income are the main challenges for the health system of India, besides its large population. The Indian government has prioritized improving primary health services by increasing accessibility and affordability to populations considered poor and under privileged. Consequently, there has been considerable improvement in the infrastructure of the healthcare services in the country. For instance, the number of qualified

<sup>192</sup> Health systems in India M Chokshi, B Patil, *Journal of Perinatology* (2016)

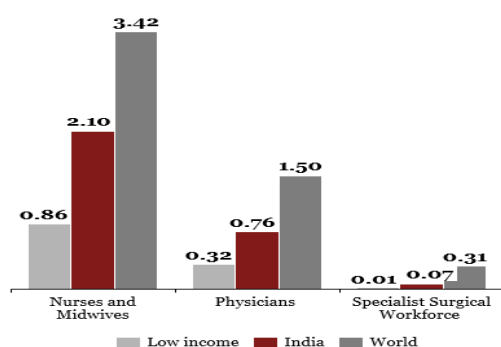
<sup>193</sup> The model was recommended in 1946 in the Bhore Committee Report

health practitioners has been increased. Also, another action to increase of number of healthcare personnel was executed by the government by admitting more students in the med-schools.

Moreover, with the efforts to increase the number of health professionals, India has achieved a better performance compared to the low-income countries (See Figure 71). However, the numbers still cannot reach the average of world. As for the hospital beds, same pattern is observed in India; the capacity performs better compared to the low-income countries but significantly worse than the world average (See Figure 72).

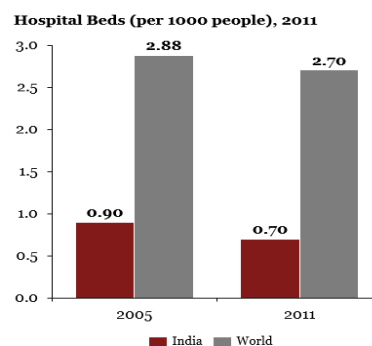
As another effort to develop the healthcare infrastructure, private equity and venture capital investments in the health-tech sector are encouraged. For instance, the investments in health-tech in India were 260.5 million US dollars in 2018, showing an 80 percent increase from 2013 (See Figure 73). The growing investments in the health-tech sector show how India takes serious in investing in its healthcare infrastructure, with an objective to capitalize over advanced machinery and health equipment.

**Figure 71. India: Health Professionals per 1000 Population, 2015**



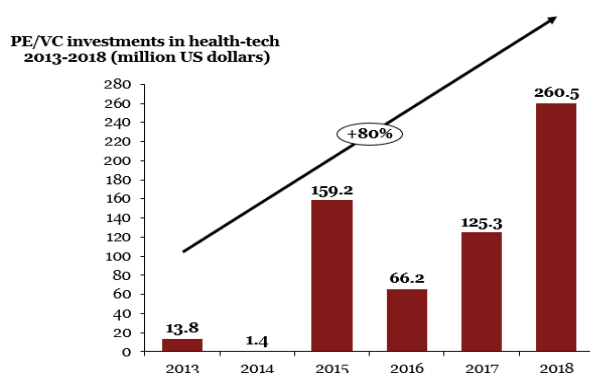
Source: World Bank

**Figure 72. India: Hospital Beds per 1000 population, 2011**



Source: World Bank

**Figure 73. Private Equity and Venture Capital Investments in The Health-Tech Sector in India**



Source: Finance, Insurance & Real Estate Banks & Financial Services, Statista

## Products and Services in India

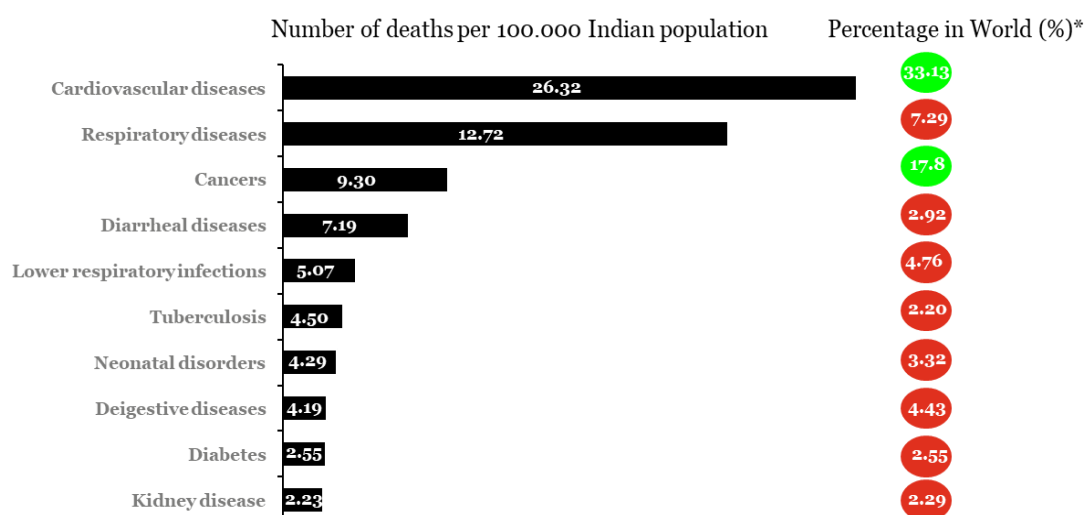
### Treatments

India offers medical expertise on specific fields such as cardiac procedures, orthopedic procedures, neurological and spinal surgery, cosmetic surgery as well as its traditional medicine services of AYUSH.<sup>194</sup>

In close relation with the dietary habits and daily lifestyle, cardiovascular diseases, respiratory diseases, cancers, diarrheal diseases, and lower respiratory infections are frequently seen in India. When the leading causes of death in India are examined (See Figure 74), it is seen that India suffers from diarrheal diseases as well as tuberculosis, which are not even listed as the top 10 prevalent diseases in a developed economy such as the US. The ensemble of all diseases which are most prominent in India signals the room for improvement of specific healthcare services. Such an improvement will consequently affect the medical tourism as it will allow ameliorate the healthcare infrastructure as well.

<sup>194</sup> ITC, Medical and Wellness Tourism: Lessons from Asia

**Figure 74. Leading Causes of Death in India**



\*If the percentage of death in India is higher than the global population share, it is highlighted with red corresponding to the cause of death. Otherwise, it is highlighted with green regarding lower percentage of leading causes of death in the population.

Source: Our World in Data, Causes of Death 2017, PwC Analysis

## Research and Development (R&D) in the Healthcare Industry

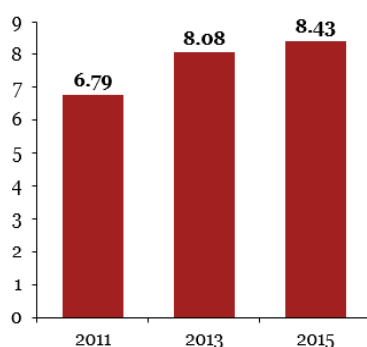
The Indian Council of Medical Research (ICMR) in India has significantly increased R&D expenditure in medical sector between 2011 to 2015 (See Figure 75). Consequently, the R&D expenditure on healthcare services, has a positive spillover effect on the number of patent applications. According to the WIPO 2018 Report, among the top 10 offices, India granted 50.2 percent more patents in 2017 than in 2016, with grants increasing from 8 thousand 248 in 2016 to 12 thousand 387 in 2017.<sup>195</sup> Furthermore, the average age of patents in force in India is 13 years, which is relatively higher than other countries (i.e. China 7.2 years).<sup>196</sup> This does not only increase the number of applicants but also attracts foreign investors and capital to the country, providing assurance for longer patent age, thus longer profitability. Hence, India holds growing market for medical and scientific instruments with relatively high export rates (See Figure 76).

<sup>195</sup> World Intellectual Property Indicators 2018

<sup>196</sup> World Intellectual Property Indicators 2018

**Figure 75. R&D Expenditure by ICMR in India**

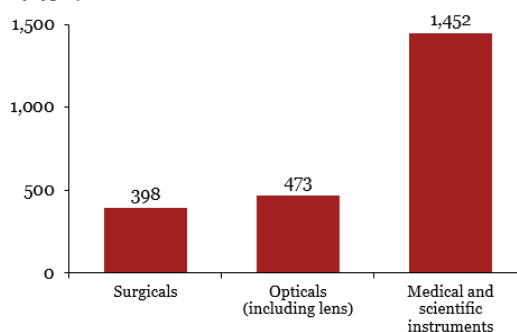
Research and development expenditure by ICMR in India 2011-2015 (billion Indian Rupees)



Source: Statista

**Figure 76. Medical Instrument Exports from India FY 2019 by type**

Export value of medical instruments from India in FY 2019, by type (in million U.S. dollars)



Source: Statista

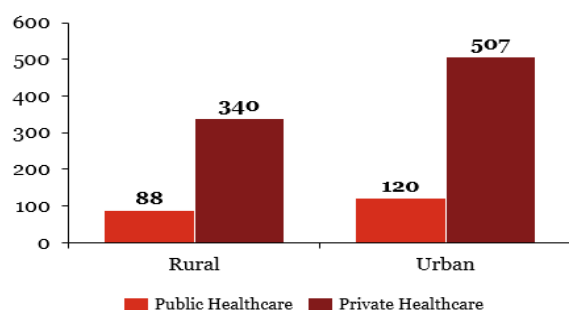
#### 3.2.2.2.4 Financing of Healthcare Services

In line with the significant increase in population over the last decade, India's total health expenditure in 2016 was 3.65 percent of the GDP. It remains relatively low compared to the average of low-income countries which is around 5.37 percent; and significantly low compared to world average which is 10.02 percent.<sup>197</sup>

India encounters disparities in terms of healthcare accessibility across different socio-economic groups (See Figure 77). Since inability to pay for medication is one of the most important struggles faced by citizens with low income, medical treatment cost is differentiated throughout the regions in India. For instance, states such as Uttar Pradesh and Maharashtra, which are considered more developed and wealthier, spent between 120 to 180 billion rupees whereas poorer states spend 3 to 6 billion rupees on healthcare in 2018.<sup>198</sup>

**Figure 77. India: Cost of Treatment on Average by Location, type of healthcare 2014**

Cost of Treatment On Average (US \$)



Source: NSS 2014, Ministry of Statistics and Programme Implementation

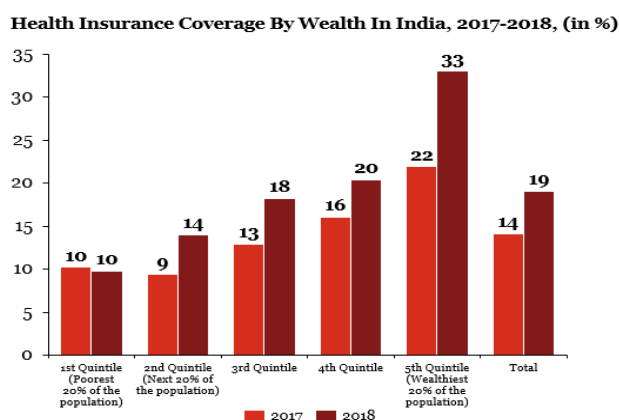
<sup>197</sup> World Bank, 2016

<sup>198</sup> Value of public health expenditure in India 2013-2018, Sanika Diwanji, Sep 23, 2019

Due to the fact that India has low insurance coverage, patients prefer to receive medication from private health centers as otherwise medical services are nevertheless expensive and insufficient in public institutions. Thus, out-of-pocket expenditure is considerably high compared to other countries with a ratio of 64.6 percent of the current health expenditure.<sup>199</sup>

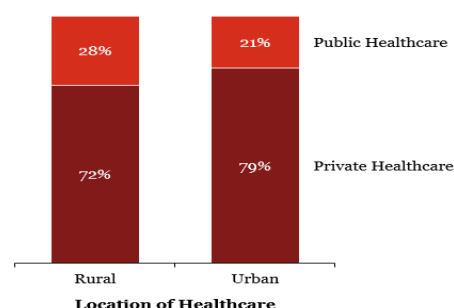
This situation about high out-of-pocket health expenditure has paved way to the expansion of the private sector in India. Generally, for middle-upper class citizens, private insurance constitutes a status. Yet, health insurance coverage in India stays relatively very low throughout wealth groups (See Figure 78). However, more than half of the hospitals in the country are privately owned and in more than 70 percent of situations where medical care is needed, private healthcare facilities are utilized (See Figure 79). Although private sector in the healthcare industry naturally develops itself, the government still seeks ways to concretize the universal healthcare through programs such as National Health Mission and Ayushman Bharat.

**Figure 78. Health Insurance Coverage by Wealth in India, 2017-2018**



Source: India National Sample Survey, 2017-18

**Figure 79. India: Location of Medical Care, by Type of Healthcare, 2014**



Source: NSS 2014, Ministry of Statistics and Programme Implementation

### 3.2.2.2.5 Stakeholders in the Medical Tourism Industry

Because of its decentralized structure, India has many players in the state level which collaborate with the government. The organization of the Health System in India can be subcategorized into three levels: National State, district and block.<sup>200</sup> At the national level, the Ministry of Health and Family Welfare, National Drug Regulatory and Development Authority, National Drug Supply Logistic Corp, National Health Promotion and Protection Trust as well as National Health Regulatory and Development Authority can be listed as the main players. Their activities are comprehensive, and the regulations are mandates for all levels of the health system in India. The national level stakeholders can be considered as the decision makers of all practices carried out in the healthcare industry.

<sup>199</sup> Out-of-pocket expenditure and distress financing on institutional delivery in India, Suyash Mishra and Sanjay K. Mohanty, International Journal of Equity of Health, 2019

<sup>200</sup> The commonwealth fund, International Healthcare Systems, India

At the state level, main stakeholders include bodies such as directorates of medical education, nursing, public health and health systems management, hospital services as well as other directorates such as the AYUSH<sup>201</sup>, ESI<sup>202</sup>, and procurement. Moreover, the state level consists of bodies in parallel to the national level, that encompass the state such as State Drug Supply Logistic Corporation, State Health Promotion & Protection Trust, State Health & Medical Facilities Accreditation Unit. These units are directly report to their counterpart in the National Level (e.g. State Drug Supply Logistic Corporation reports to National Drug Supply Logistic Corp.). The state level stakeholders, in other words, gather information and assist national level stakeholders in decision making processes.

At the district level of the health system, the stakeholders show complementary functions to the counterparts at the state and national levels such as district health systems manager, district public health officer, etc. Furthermore, the district level stakeholders are used as an intermediary between the community and national and state governance. Therefore, the district level consists of an ombudsperson, who investigates complaints and malpractices in the medical sector for the interest of the public. The ombudsperson reports to the State Health Regulatory & Development Authority, which will be then reported to the National Health Regulatory and Development Authority.

Also, in consideration with the population size, district level stakeholders are in communication with the 3<sup>rd</sup> level (block level) stakeholders in order to have more detailed information about the needs of the communities. These stakeholders take role in reporting Primary Health Centers activities to the district level stakeholders.

In addition to the main stakeholders in the healthcare system for regulation, there are different actors such as the Ministry of Tourism and other public associations specifically targeting medical tourism. Additionally, The HSEU (Health System Evaluation Unit) is responsible for evaluating and monitoring the performance of private and public health services at all levels (national, state, district, block). The HSEU achieves this by using systems for real-time data monitoring every process. With prominent privatization of the medical industry, private institutions especially hospitals are leaders of the market.

More detailed examination on medical tourism stakeholders of India is shown in the table below (See Table 25).

**Table 25. Medical Tourism Stakeholders in India**

| Stakeholder                           | Interest Level* | Role and Function   |
|---------------------------------------|-----------------|---|
| Ministry of Health and Family Welfare | 1 <sup>st</sup> | <u>Policymaking process, regulations:</u> The Ministry is responsible for the provision of policy guidelines, programme frameworks, standards, and provides a share of the funding, while state governments are the main providers of services geared towards the vulnerable populations. |

<sup>201</sup> AYUSH: Ministry of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy

<sup>202</sup> ESI: Employees' State Insurance

|  |                 |   |
|--|-----------------|---|
| National Drug Regulatory and Development Authority       | 1 <sup>st</sup> | <u>Polycymaking process, regulations:</u> The NDR of India is responsible for regulation and polycymaking for every pharmaceutical company and monitors the use of drugs throughout the country.  |
| National Health Promotion and Protection Trust           | 1 <sup>st</sup> | <u>Promotion, healthcare provision:</u> Organization plays a catalytic role to ensure promotion of better health standards among Indian citizens, policy makers and healthcare providers.   |
| National Health Regulatory and Development Authority     | 1 <sup>st</sup> | <u>Polycymaking process, regulations:</u> Organization is a national entity that has sub chapters in the state level which is responsible for developing legal, regulatory and financial guidelines as well as oversee the Management Information System (MIS) in the healthcare industry.    |
| State Health and Medical Facilities Accreditation Unit   | 1 <sup>st</sup> | <u>Accreditation:</u> The State Health and Medical Facilities Accreditation Unit is responsible the mandatory accreditation of all health and medical facilities, as well as, allopathic and AYUSH healthcare providers.  |
| Hospitals and Clinics                                    | 1 <sup>st</sup> | <u>Healthcare provision, research:</u> Hospitals and Clinics in India provide healthcare to patients as well as conduct research.   |
| Travel agencies  | 1 <sup>st</sup> | <u>Travel arrangements:</u> Travel agencies provide the necessary arrangements in terms of transportation, accommodation as well as additional touristic activities.  |
| Patients   | 1 <sup>st</sup> | <u>Travel for treatment:</u> Patients abroad travel to India to meet their needs in terms of healthcare provision.  |
| National eHealth Authority                               | 2 <sup>nd</sup> | <u>Research, healthcare provision:</u> is the Authority which aims for the development of an integrated health information system in the healthcare system in India.  |
| Non-Governmental Organizations (NGOs) (Indian Red Cross) | 2 <sup>nd</sup> | <u>Coordination and advisory:</u> NGOs play a role in facilitating the medical tourism by promoting healthcare services, encouraging institutions to adopt international standards for the maintenance of service quality. E.g.: India Healthcare Tourism, Indian Medical Tourism Association |
| Medical Schools and Colleges                             | 2 <sup>nd</sup> | <u>Education, research, healthcare provision:</u> renowned medical schools in India serve as a 'pull' factor in attracting medical tourists to the country. With the reputation of qualified professionals and medical ecosystem, more medical tourists prefer India as their destination.    |

\*Interest Level: The term stands for one stakeholder's position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism. *Source: PwC Analysis*

### 3.2.2.2.6 Legislation

The government of India has enacted several regulations regarding the healthcare industry in all levels described above. Apart all regulations, in 1986, patient rights has become a part of the Consumer Protection Act which ensures legal and ethical issues between patients and healthcare providers.<sup>203</sup> Moreover, laws on standards and quality of healthcare were introduced, which eventually lead to the creation of a national accreditation systems for both

<sup>203</sup> Y. Balarajan, S. Selvaraj, and S. V. Subramanian, "Health Care and Equity in India," *Lancet*, Feb. 5, 2011 377(9764)

primary and secondary healthcare.<sup>204</sup> For instance, The 2010 Clinical Establishments (Registration and Regulation) Act<sup>205</sup> mandates minimum standards for all clinical and medical establishments in India. This act forces clinical establishment to charge rates for all services and procedures as agreed upon by the central government, and if not followed, dictates fines and penalties. Also, many international accreditation and certifications are acquired from international bodies.

In order to monitor the health programs in India, The Health Management Information System is established in 2008. Within this body, surveys in all levels (national, state, district, and block) are regularly conducted. The Ministry of Health and Family Welfare announced the 2017 National Health Policy, which aims to achieve goals such as acceptable standard of good health in India, increase access to decentralized public health system, establish new infrastructure in existing institutions and ensure more equitable access to health services across the country.<sup>206</sup>

Moreover, to ensure skills and qualification of the healthcare staff, a common national entrance exam, National Eligibility Cum Entrance Test (NEET), for admission of medical aspirants to MBBS, BDS, AYUSH, Veterinary and other graduate level medical courses nationwide has been recently put in force. By toughening the selection criteria, the pool of medical applicants is improved, and the reputation and quality of the healthcare system is aimed to be ameliorated.

Furthermore, India lands medical visas to strengthen its position in medical tourism industry. Medical visa procedures are easy to apply and to obtain in India. This specific type of visa offers a long duration of stay. It is comprehensive for the patient's family as well to enjoy touristic and leisure activities. Unlike other developed countries, it is very easy to travel without additional documents required at customs, which is an important advantage India offers in medical tourism.

#### 3.2.2.2.7 *Marketing*

Promotion of medical tourism capabilities of India are based on the quality of health professionals, hospitals and clinics. India uses both online and conventional methods to promote its medical services. The fundamental of India's marketing strategy consists of offering immediate solutions to the patients such as making arrangements with local hospitals in order to treat the patients right after the diagnosis in the exhibition area by the healthcare professional and medical products they bring along with themselves.

Additionally, as a pillar of services industry, the healthcare industry is also encouraged by the Services Export Promotion Council. The Council supports the sector representatives by encouraging them to attend national and international conventions and exhibitions and to achieve the international standards for service quality. Such good reputation of the country

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<sup>204</sup> National Accreditation Board for Hospitals and Healthcare Providers, NABH Standards for Small Healthcare Organisations (SHCO), 2006; accessed Oct. 13, 2016.

G. Gyani, "India," in J. Braithwaite, Y. Matsuyama, R. Mannion et al. (eds.), *Healthcare Reform, Quality and Safety: Perspectives, Participants, Partnerships, and Prospects in 30 Countries* (Ashgate Publishing Limited, 2015).

<sup>205</sup> The Clinical Establishments (Registration and Regulation) ACT, 2010, Ministry of Health and Family Welfare, India

<sup>206</sup> The Ministry of Health and Family Welfare, 2017 National Health Policy, Government of India

promoted at the international level supports the medical activities including specific treatments requiring high level of expertise as well.

Also, traditional practices of particularly yoga and Ayurveda which originate in India turns into a practice of individuals from developed countries in the last decades. Such a shift towards traditional medicine and practices rebrands India as a source of “wisdom”. The country becomes a top destination among individuals who follow alternative doctrines in order to gain insights and initiate spiritual awakening.

**Table 26. Medical Tourism Industry Marketing Strategy of India**

| Factors that Serve as Marketing Material for the India | Definitions   |
|--|---|
| <b>Cost of Healthcare</b>                              | <ul style="list-style-type: none"> <li>• Low cost medical procedures, despite high quality offered</li> </ul>   |
| <b>Quality of Healthcare</b>                           | <ul style="list-style-type: none"> <li>• Expertise in complex medical specialties</li> <li>• Highly developed medical infrastructure</li> <li>• US trained health professionals</li> </ul>  |
| <b>Additional Touristic and AYUSH opportunities</b>    | <ul style="list-style-type: none"> <li>• Many touristic opportunities throughout India</li> <li>• AYUSH treatment opportunities unique to India</li> </ul>  |
| <b>Traditional and Online Marketing Tools</b>          | <ul style="list-style-type: none"> <li>• Broad usage of social media platforms and targeted advertisement for potential medical tourists</li> <li>• Online portals of India Healthcare Tourism, Indian Medical Tourism Association etc.</li> <li>• Hosting and conducting international conferences and tradeshow on medical tourism</li> </ul> |

Source: PwC Analysis

### 3.2.2.3 The US Case

#### 3.2.2.3.1 General Outlook

Among the developed economies, the United States holds a special place regarding its healthcare industry. Unlike many other developed countries, the US does not provide a universal healthcare provision to its citizens. However, it remains among the leading countries as regards healthcare services and products. The healthcare infrastructure in the US is highly advanced due to its research and development capacity and investments in health industry. As for the determinants of health such as life expectancy, crude death rate and immunization rate, which help describe the health profile of the country, indicate that the US performs as good as the average of OECD countries and better than the world average. For instance, the average life expectancy in the US was announced as 79 years in 2017 whereas the OECD average is 80 and the world average was 72 years (World Bank, 2017).

For the medical tourism, the US ranks as the first country with its 3.9 billion USD of export (ITC Trademap, 2017). The trade in health-related travel services has grown steadily in recent years. The medical tourism in the US holds a share of 36 percent of the global market while it corresponds to 1.9 percent of the tourism sector in the US (WTTC, 2019). The main motivation

of patients who prefer the US for treatment is mostly due to quality of treatments rather than prices. Especially for serious diseases such as cancer, cardiac problems and neurological disorders, the US becomes a respectable option as regards its know-how and skills developed through continuous investments in healthcare infrastructure.

However, in 2017, more than 1.6<sup>207</sup> million Americans sought healthcare in various countries abroad. The main motivation to travel for medical needs for the patients in the US the high cost of medical services in the country. Patients look for options which offer high quality of services with competitive prices. Because of cost, insurance coverage, access to healthcare and alike push factors which are examined in the following section (See Pull and Push Factors), patients in the US tend to prefer receiving medical services in more affordable destinations rather than being obliged to pay higher prices in the US. Canada is the most preferred destination country for patients from the US. This is especially related with Canada's geographical proximity to the US, the quality of medical services of hospitals and the cultural similarity. <sup>208</sup> Moreover Mexico, China, India and Singapore can be listed as the following top destinations for patients from the US.

Despite the motivations which lead US citizens to seek medical treatments in other destinations, the US health system continues to attract foreigners. Not only high-quality medical services with use of advanced technology and medical expertise but also nature, culture, history and wide range of touristic options play a role on the success in medical tourism industry of the US.

#### *3.2.2.3.2 Pull and Push Factors for Medical Tourism*

There are various push and pull factors which affect the United States' outbound and inbound medical tourism. On one hand, the motivation of patients who travel to the US in order to receive healthcare services can be globally listed as privacy and confidentiality, reputation of specific health providers, service quality, expertise in treatments, and advanced research opportunities in rare diseases. On the other hand, the reasons behind why patients in the US travel to other destinations to get healthcare can be broadly enumerated as cost advantages, accessibility to healthcare services and tourism purposes.

#### **Pull Factors**

Pull factors indicate the motivation regarding preferences of patients from other countries to receive treatment from medical facilities in the US.

##### *a. Environment*

Environment has many aspects as a term. It refers to social, economic, cultural, political, ethical and regulatory environment of a country (See Figure 80). While selecting destination country,

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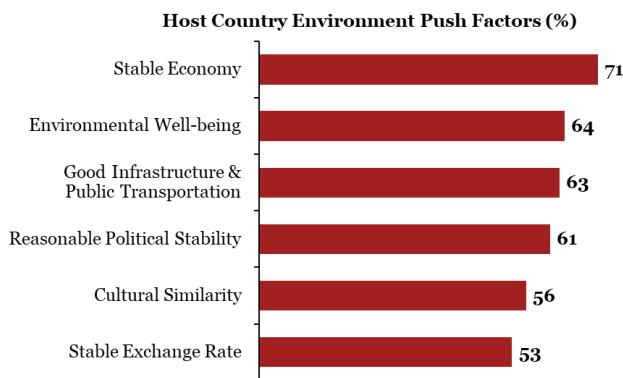
<sup>207</sup> According a study by Deloitte Center for Health Solutions, 1.6 million Americans will travel overseas for medical treatment by 2012.

<sup>208</sup> Statista

patients take into account the economic and infrastructural indicators such as health infrastructure and public

transportation, political and economic stability and exchange rate. Cultural similarity also plays a role on the decision. Additionally, tourism infrastructure of the destination country which is determined by airport connectivity, transportation to city center and sightseeing locations, variety in accommodation options can be listed among the other decisive factors. In this regard, the US uses the advantages of being a developed country.

**Figure 80. Factors Related to Environment in Medical Tourism Destinations in the US**



Source: Collins, Medhekar, Wong and Çobanoğlu, 2018

#### *b. Tourism Destination Attractiveness*

Destination country's tourism attractions have an impact on decision regarding medical tourism. A potential patient considers additional factors such as country image, travel safety, familiarity with local language as regards the tourism aspect of the concept. US Travel Association aims to enhance diversification of national parks, iconic landmarks, shopping centers, entertainment venues, world-class attractions and sightseeing tours in order to establish an image of "best travel destination" in terms of global tourism and hospitality industry (The National Council of Attractions and Experiences (NCAE), 2019). Incoming patients do not just look for the right place to get the treatment, but they also assess the number of natural and cultural attractions, appealing tourist destinations and their popularity. In this sense, national parks and natural reserves as Grand Canyon, Yellowstone and Glacier National Park and entertainment attraction points such as Hollywood, Las Vegas, Miami make the US more attractive among the international patients (The US Travel Association, 2018).

#### *c. Quality of Services*

To ensure the service quality of medical procedures, the US based international healthcare accrediting institution, JCI, provides accreditation for hospitals which are eligible for international patients. Although there are many other JCI accredited hospitals in the world, those in the US are most preferred due the services that comply with their standards (National Research Council (US), 2013). Also, key performance indicators such as rate of surgical errors, low infection rate after treatment, high success rate of surgeries and quality of pre- and post-

treatment care have a significant effect on patients' preference in favor of the hospitals in the US.

#### *d. Reputation*

According to global hospital rankings, the US holds the biggest number of hospitals with high quality of services and high skilled doctors.<sup>209</sup> For instance, Cleveland Clinic in Cleveland is ranked 4<sup>th</sup> in the Best Hospitals Honor Roll. The Clinic serves patients from 135 countries under its Taussig Cancer Institute, Global Cardiovascular Innovation Center, Cole Eye Institute, Cleveland Clinic Children's and Pediatric Institute, and Centers for Geriatric and Diabetes Care (US News Best Hospitals Honor Roll, 2019). Furthermore, Johns Hopkins where high efficiency of diagnostic services and post-treatment care is available, provides advanced clinical technologies, medical and surgical treatment of cardiovascular diseases and highly experienced nurse staffing (The Johns Hopkins Hospital, 2018).

Moreover, the targets such as practice guidelines, quality of performance indicators and criteria used for pay-for-performance incentives which are set in order to sustain the quality of healthcare treatments are met by the US hospitals (Institute of Medicine, 2007). These targets help service providers improve their performance outcomes continuously.

#### *e. Pharmaceutical Industry*

Medical treatment usually complements with medicines. As much important as the safety and quality, effectiveness and innovation are also determinants for the use of medicines as a complementary tool to treatment. The pharmaceutical industry in the US has produced many global players. Amgen, Johnson&Johnson, Eli Lilly and Company, AbbVie, Merck&Co., Pfizer can be listed as some of the US based global companies which give direction to innovations in pharmaceutical sector. These companies conduct clinical researches and develop new branded medicines in order to bring more effective solutions to health conditions. Availability of a wide range of medicines, therefore, is easier in the US thanks to the developed pharmaceutical ecosystem compared to most of other countries.

#### *f. Birthright Citizenship*

In the United State, there is a right to acquire US citizenship at birth according to the 14<sup>th</sup> Amendment to the US Constitution (Legal Information Institute, 2001). Regardless the nationality of parents, a baby who is born within the borders of the US become entitled as the citizen of the US. It is a highly motivating factor for those who like to acquire an additional passport for their newborn. For this reason, foreign couples specifically prefer to give birth in the US. Consequently, delivery services in the US are highly demanded as a treatment segment among international patients. As mother needs time for recovery after delivery, this inevitable period generates income in the other sectors such as real estate, accommodation, food and beverage, retail as well.

### **Push Factors**

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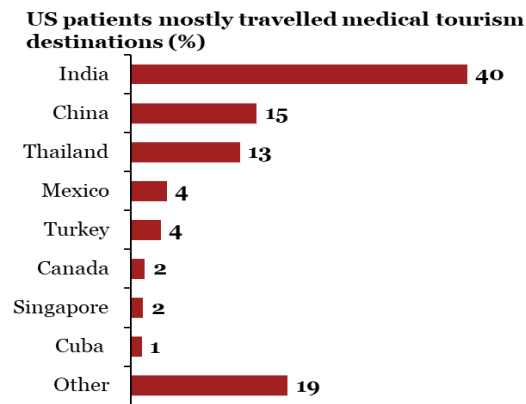
<sup>209</sup> Ranking Web of World Hospitals, 2019

Push factors indicate the motivations regarding preferences of patients in the US to receive healthcare in other country.

*a. Demographics & Destinations*

There are several studies in the literature identifying sex, age and income level as a factor to become medical tourists abroad. The results show that men (55.8%) are more motivated than women (44.2%) to travel as medical tourists as patients from the US. Most of the US medical visitors are between 26-35 ages (42.3%) with annual income of 50-100 thousand US dollars (45%) (Drinkert , 2015). Moreover, in case of the US, concerns about privacy and confidentiality of treatments are emphasized as motivational factors to travel abroad since, some patients may be sensitive for sharing information regarding their medical history, insurance and income. A recent research studied the motivations of patients in the US when selecting a destination country for their medical needs. The findings show that cost, availability of medication, waiting time, insurance coverage and a variety of treatments available in one place are among the most prominent factors being effective in their decisions. As a result of their evaluation India, China, Thailand, Mexico and Turkey stand out as the main destinations (See Figure 81) (Collins, Medhekar, Wong, & Cobanoğlu, 2018).

**Figure 81. Medical Tourism Destinations of Patients from the US**

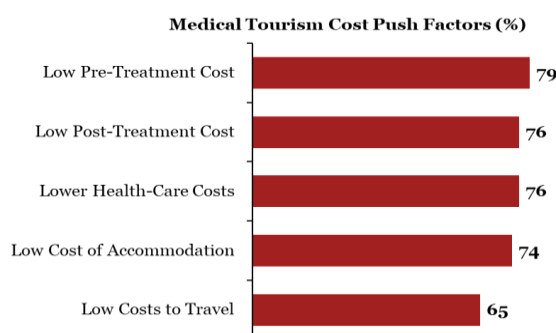


Source: Collins, Medhekar, Wong and Çobanoğlu, 2018

*b. Cost*

One of the most important push factors regarding medical tourism is cost of medical services (See Figure 82). Patients compare, for example, the cost of a surgery and overall savings including cost of travel and accommodation when deciding for travel abroad for medical purposes. Also, risk of bankruptcy due to expensive treatment costs is another push factor for the citizens of the US to travel to more affordable medical tourism destinations.

**Figure 82. Medical Tourism Destinations of Patients from the US**



Source: Collins, Medhekar, Wong and Çobanoğlu, 2018

In the US, around 17 per cent of GDP is spent on healthcare (OECD, 2018). This fact argues that the tendency in looking lower cost options abroad for medical needs becomes an advantage since it is possible to save a range of 30 to 65 per cent of medical costs if same procedures are obtained in a different country (The American Journal of Medicine, 2018).

For instance, heart bypass surgery costs around 123 thousand US dollars in the US whereas the same procedure in Turkey help save up around 50 to 65 percent (Patients Beyond Borders) excluding the travel and accommodation costs (Medical Tourism Association, 2019). In order to avoid high cost of medical services in the US as a result of listed factors, patients are motivated to travel abroad. Especially the uninsured and underinsured patients in the US are more likely to travel to developing countries for an affordable medical treatment where they can both save money and engage in tourism activities.

### *c. Availability of Medical Services Abroad*

Availability of medical services is another crucial factor for the US citizens. Some treatments and medical methods are not legal at the federal level. For instance, physician assisted suicide (euthanasia) is legal in California, Colorado, district of Columbia, Hawaii, Montana, Maine, New Jersey, Oregon, Vermont and Washington, nonetheless in the majority of the states it remains illegal. Also, there are some restrictions on stem cell researches and new drug developments. When experimental procedures are restricted due to official regulations, patients seek this treatment outside the country (Harvard Law, 2013). In such case, the US citizens are willing to travel mostly to Thailand and China where treatments such as stem cell therapy is available to international patients in more than 200 hospitals (Canadian Medical Association Journal, 2012).

### *d. Insufficient Insurance Coverage in the US*

One of the disadvantages in the healthcare system of the US is about inadequate insurance coverage. There is a large population of uninsured and underinsured population in the country. In 2018, 8.5 percent of the US population, which means nearly 27.5 million of individuals, did not have any health insurance (United States Census Bureau, 2019). Due to lack of a social coverage, people suffer more from cost-related problems in healthcare provision. Also, lack of

healthcare insurance coverage makes patients more vulnerable compared to those who have continuous and adequate insurance coverage. Therefore, the federal and state governments in the US establish the Affordable Care Act which expands its eligibility and coverage by enacting policies for the citizens who have low income and limited access to health insurance (Collins, Bhupal, & M., 2019).

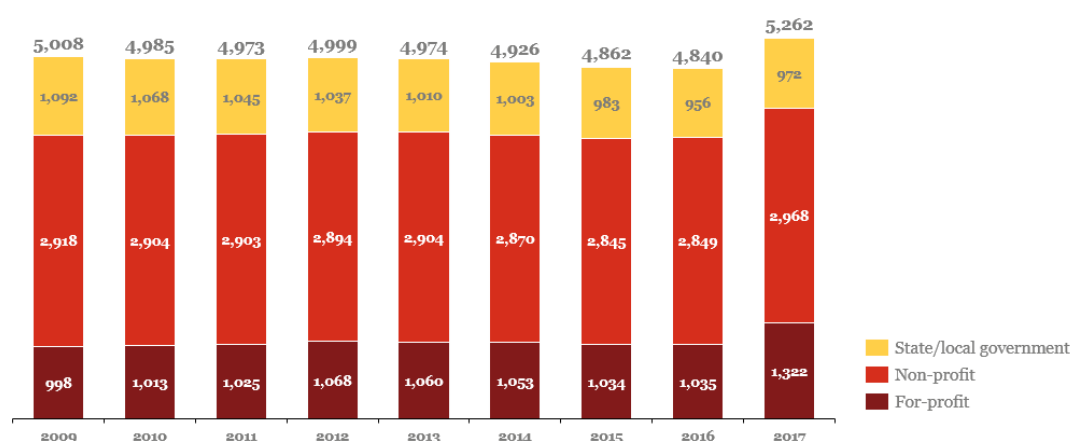
### 3.2.2.3.3 Healthcare Provision Model in the US

The healthcare in the United States, unlike many other developed countries, does not provide universal coverage for all citizens. Although there are insurance schemes available at national level for target populations, there are still a large amount of people who are left out. The healthcare system in the US offers a hybrid model which is a combination of public and private insurance coverages along with out of pocket health expenditures.

Medicare, as one of social insurance schemes implemented in 1966, targets elderly people over 65 years old, young people with disabilities and people with end stage renal disorders. As a scheme under the social welfare program, Medicaid, which was initiated in 1965, provides healthcare coverage for those under a predefined level of income. As a complementary scheme for families who are not eligible to Medicaid but still need assistance of a social welfare program for the medical needs of their children are covered by the Children's Health Insurance Program. Aside from these schemes, private insurance is another option for those who voluntarily contribute by paying premiums.

According to the American Hospital Association's Annual Survey 2018, the distribution of healthcare providers in the US is in sovereignty of non-profit institutions (See Figure 83), however number of private healthcare providers has increased in the last decade.

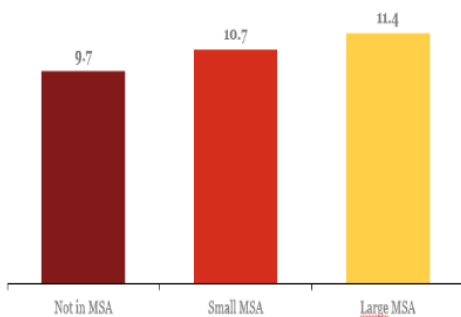
**Figure 83. Number of Hospitals in the US 2009-2017 by Ownership Type**



Source: American Hospital Association Annual Survey 2018, Statista

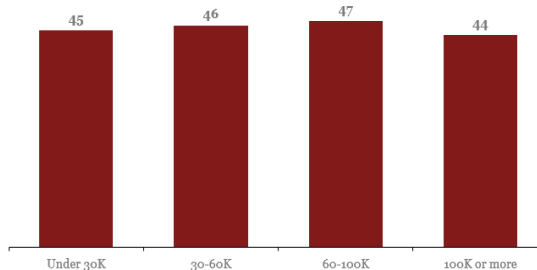
Due to the cost of healthcare services, the unmet medical needs and unexpected medical bills become an important issue for the citizens (See Figure 84 and 85).

**Figure 84. Percentage of Adults with an Unmet Medical Need due to Cost in the US, 2017, by MSA Status\***



\*MSA Status: Metropolitan Statistical Area Status

**Figure 85. Percentage of Adults Who Have Received a Surprise Out-Of-Network Medical Bill as of 2019, by Income Level in the US**



Source: Families USA, PerryUndem, Statista, 2019

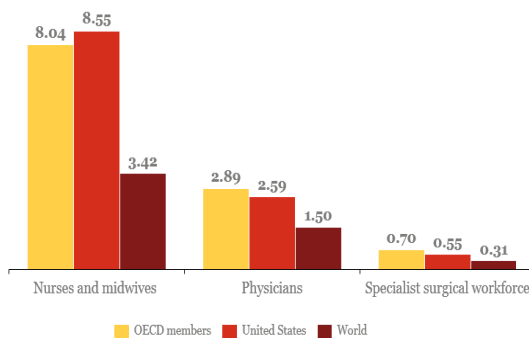
Source: NCHS 2017, Statista

### Infrastructure of Healthcare Services

America is highly above the world average in terms of its health infrastructure that is evaluated by the indicators such as number of physicians, nurses, midwives, special surgical workforce and hospital beds. However, it lags behind OECD average in terms of hospital beds and physicians per person. High number of accredited hospitals in the country implies that these facilities are operating with global medical standards. One of the most reliable and acknowledged accreditation, The Joint Commission, had accredited 4 thousand 500 hospitals globally since establishment in 1998 and 82 percent of these hospitals are based in the US.

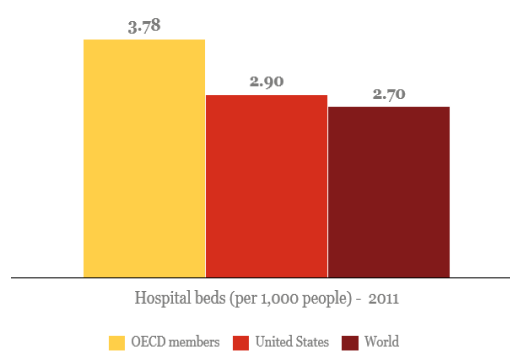
The health infrastructure of a country can be assessed through the capacity of healthcare personnel and service provision. In the US, the number of healthcare professionals shows better performance compared to the world average. In comparison to the average of OECD countries, the number of nurses is higher in the US, and the number of physicians and surgeons are competitive with the selected countries (See Figure 86). Also, the number of hospital beds per thousand population indicates that the US performs below the average of OECD countries, and above the world average (See Figure 87).

**Figure 86. The US: Health Professionals per 1000 Population, 2015**



Source: World Bank

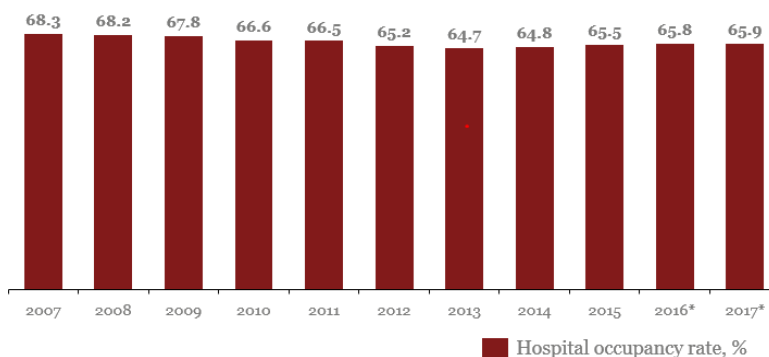
**Figure 87. The US: Hospital Beds per 1000 population, 2011**



Source: World Bank

Hospital occupancy rate has been at 65-68 percent range in the last decade (See Figure 88). This figure suggest that the hospital capacity has the potential to meet the needs of the population when necessary. Additionally, the statistical facts show that the infrastructure of healthcare system in the US is developed and can have the capacity to receive additional international patients in their healthcare services.

**Figure 88. Hospital Occupancy Rate in the US, 2007-2017, %**



Source: US Department of Health and Human Services, Statista

## Products and Services in the US

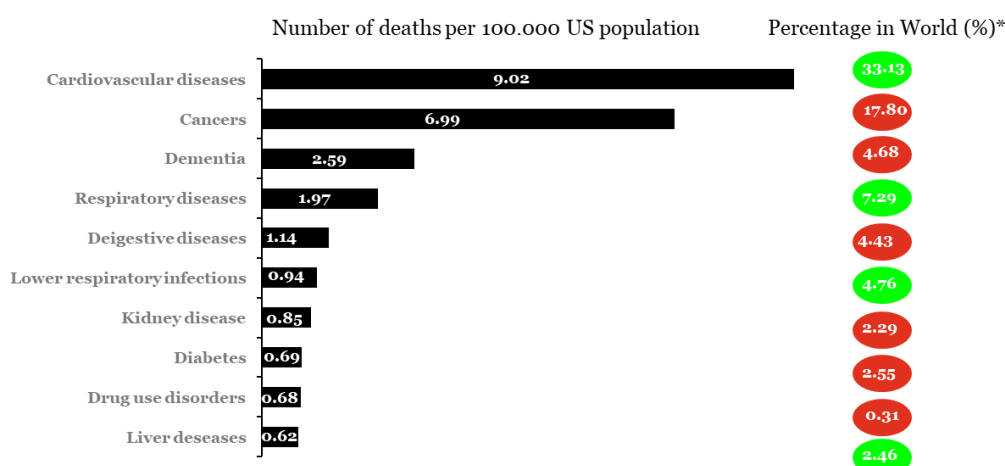
### Treatments

Types of treatments which fall under medical and cosmetic services are all available in the US. However, the US is especially preferred for life threatening disease treatments and risky surgeries due to its advanced know-how and technology in medical services. Doctors and clinics become brands in their area of expertise, and they attract international patients by their own reputation.

Medical services for health conditions such as cancer, cardiology and heart surgery, diabetes and endocrinology, gastroenterology and gastrointestinal surgery, geriatrics, gynecology, nephrology, neurology and neurosurgery, orthopedics, pulmonology, urology are offered at big hospitals and clinics. The patient who consider having medical assistance for any of these conditions may consult the doctor to outline the treatment plan. Unlike many other medical tourism destinations, the US does not offer any free of charge consultation to define treatment plan.

Among the most frequently seen diseases which also leads individuals to death in the US, heart disease, cancer, accidents, chronic lower respiratory diseases, stroke, Alzheimer's disease, diabetes, influenza and pneumonia, nephritis and intentional self-harm (suicide) can be listed (CDC, 2017). When comparing the leading causes of death around the world and in the US, the results show that diseases such as cardiovascular, cancer and dementia have high prevalence in the US (See Figure 89). In parallel with the most frequently observed diseases, health professionals and researchers focus on development of more effective technics to treat these leading health conditions.

**Figure 89. Leading Causes of Death in the US**



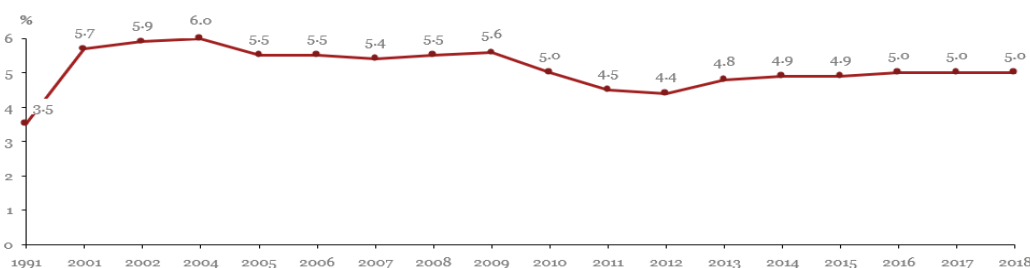
\* If the percentage of death in the US is higher than the global population share, it is highlighted with red corresponding to the cause of death. Otherwise, it is highlighted with green regarding lower percentage of leading causes of death in the population. *Source: Our World in Data, Causes of Death 2017, PwC Analysis*

For the cosmetic and plastic surgery, top five procedures are respectively announced as breast augmentation, liposuction, nose reshaping, eyelid surgery and tummy tuck. Breast augmentation surgery takes the first place since 2006 and it has shown 4 percent of increase in 2018 with 313 thousand cases in total; whereas, the second most popular plastic surgery is announced as liposuction (American Society of Plastic Surgeons, 2018). The trends in the cosmetic and plastic surgeries demonstrate there is an alignment in consumption behaviors of individuals with beauty perception diffused through social media and alike platforms.

## Research and Development in the Healthcare Industry

The United States is a leading country with its research and development capacity. Among the industrialized countries, the US ranks in the eight place<sup>210</sup> by the expenditure dedicated to R&D as percentage of GDP (World Bank, 2017). Around 5 percent of all health expenditure is spent for R&D activities in the sector (See Figure 90) while it represents approximately 0.89 percent of the GDP (Statista&World Bank, 2018).

**Figure 90. The US healthcare: share of research and development costs 1991-2018**

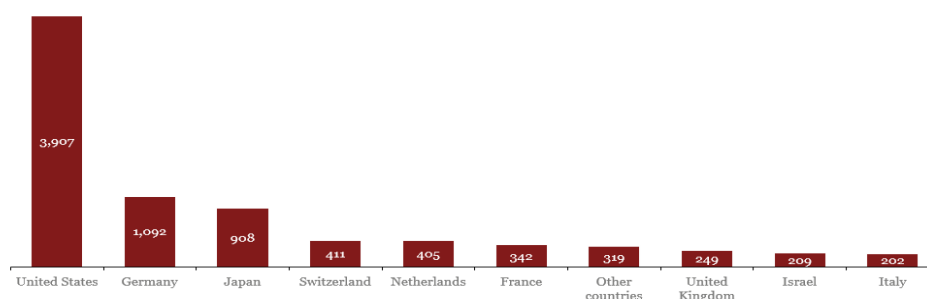


Source: Research America, NIH, Statista

The R&D expenditure on health creates a positive result on the number of patent applications. According to the European Patent Office, the number of patent application from the US is the highest with almost 4,000 applications in the medical technology industry (See Figure 91). The use of research capability and technology is a prominent factor in appealing international medical tourists within the borders of the US as it is examined in the Pull and Push Factors section of this report (See Pull and Push Factors of the US Case).

<sup>210</sup> According to World Bank 2017 data top 10 countries for the R&D expenditure as percentage of GDP are listed as follows: Israel, South Korea, Sweden, Japan, Austria, Denmark, Germany, United States, Finland, Belgium

**Figure 91. Number of Patent Application in Medical Technology in Top 10 Countries, 2018**



Source: European Patent Office, Statista, 2018

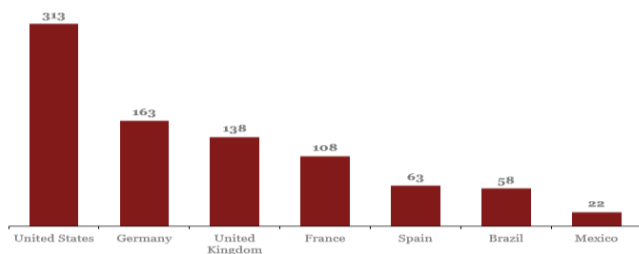
On the other side, foreign trained doctors and medical personnel increase the quality of medical services and convey information on new technologies, treatment methods and niche expertise. The United States is the most preferred country for medical professions in these terms due to its technological capabilities and medical education opportunities. Therefore, massive number of foreign medical school students and medical professionals flow to the country which illustrate the medical competences of the country and create a ground for the knowledge spillover. On the other hand, many overseas hospitals are staffed by physicians and health professionals who were trained in US hospitals.

#### 3.2.2.3.4 Financing of Healthcare Services

Expenditure on health including all types of financing schemes, was recorded as 17.1 percent of the GDP in the US in 2017, which is above the average health expenditure of OECD countries which was 8.8 percent of GDP (OECD, 2017). When examining the expenditure distribution, expenditure on government/compulsory schemes constitutes of 84.5 percent of the total health expenditure, while out of pocket health expenditure consists of 11 percent of it (OECD, 2017). Also, the health expenditure per capita in the US was 10 thousand 500 US dollars in 2018 whereas the OECD average per capita was around 4 thousand US dollars in 2018 (OECD, 2018).

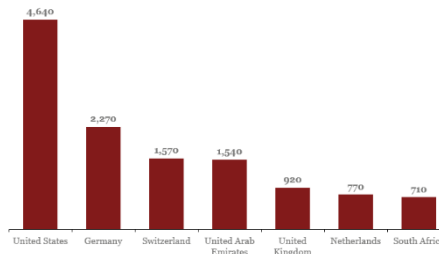
There are several factors driving the US to spend significantly higher than the average of OECD countries on healthcare. Among these factors, there is one leading reason which affects all the financing system: prices. The prices in the healthcare industry in the US are higher than that of most of developed countries. For instance, salaries allocated to doctors and other health professionals have higher rates in comparison to other countries (See Figure 92). Another pricing issue can be observed in the pharmaceuticals sector. For example, the comparison of the average prices of Enbrel, which is a drug prescribed for the treatment of autoimmune diseases, indicates that pharmaceutical spending is also higher in the US than other OECD countries. High prices in the industry create an overall impact on the health expenditure (See Figure 93 and 94).

**Figure 92. Earnings of Physicians in Selected Countries Worldwide in 2019 (in thousand US dollars)**



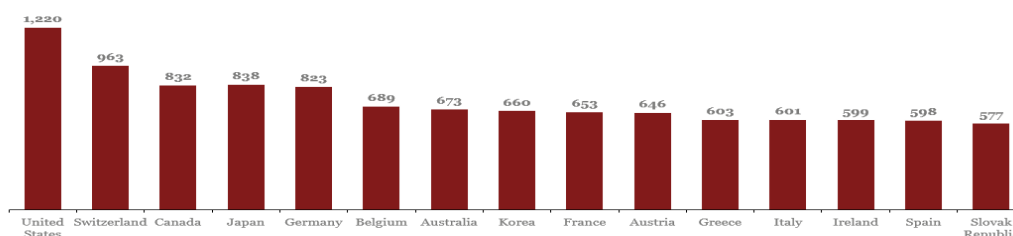
Source: Medscape 2019, Statista

**Figure 93. Average Prices of Enbrel in Selected Countries in 2017 (in US dollars)**



Source: IFHP 2017, Statista

**Figure 94. Pharmaceutical Spending per capita in Selected Countries as of 2018 (in US dollars)**



Source: OECD 2018, Statista

### 3.2.2.3.5 Stakeholders in the Medical Tourism Industry

Main stakeholders in the healthcare system, regardless of the country, are composed of similar actors. Ministry of Health stands for regulation; healthcare providers serve to improve health status of the population; insurance programs ensure the accessibility to healthcare services; patients are beneficiaries of healthcare provision; pharmaceutical companies and pharmacies provide supplementary products to treat diseases. For medical tourism, some other actors also intervene as the industry expands its span beyond the healthcare sector. More specific governmental bodies can be in need to respond specific requirements of the industry. For instance, bodies under Ministry of Tourism and intermediary agencies for medical tourism can be suggested as necessary additional institutions for the medical tourism sector.

In the case of the United States, main actors can be elaborated in line with its governmental structure. As the governmental system is decentralized in the US, it is not possible to affirm unity of services under one institution. As well as the federal government, state governments also have a policymaking and regulatory role. Governmental institutions such as US Department of Health and Human Services (HHS), US Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC) play roles on health and health related fields such as healthcare provision, medical products, pharmaceuticals, etc.

The market is in leadership of private institutions, precisely hospitals and clinics. The services offered in hospitals and clinics, as well as the reputation they build across the world help attract international patients. Since medical tourism is not a large component of the political agenda, actors act more independently. Medical tourism stakeholders in the US are shown in the table below in order to grasp the comprehensive picture in the country (See Table 27).

**Table 27. Medical Tourism Stakeholders in the United States**

| Stakeholder                                      | Interest Level* | Role and Function  |
|--|-----------------|--|
| US Department of Health and Human Services (HHS) | 1 <sup>st</sup> | <u>Polycymaking process, regulations:</u> The department ensures the protection of health in the country by introducing essential programs for the population such as Medicare and Medicaid programs under its umbrella.   |
| Centers for Disease Control and Prevention       | 1 <sup>st</sup> | <u>Polycymaking process, regulations:</u> The Centers serve for improvement of public health under the US HHS.   |
| Hospitals and Clinics                            | 1 <sup>st</sup> | <u>Healthcare provision, research:</u> World renowned hospitals such as Mayo Clinic, Cleveland Clinic, Johns Hopkins Hospital, New York Presbyterian Hospital, etc. receive patients to treat their medical problems.  |
| Travel agencies                                  | 1 <sup>st</sup> | <u>Travel arrangements:</u> Intermediary agencies work for necessary arrangements in transportation, hotel booking and hospital reservation.   |
| Patients   | 1 <sup>st</sup> | <u>Travel for treatment:</u> International patients come to the US for their medical needs as regards the US capabilities in the medical sector whereas patients in the US go abroad in order to seek medical assistance due to push factors related to healthcare services in the US.   |
| US Department of State: Your Health Abroad       | 2 <sup>nd</sup> | <u>Travel recommendations for healthcare services abroad:</u> The department provides guidance for the US citizens who wish to receive healthcare services abroad.   |
| US Food and Drug Administration (FDA)            | 2 <sup>nd</sup> | <u>Polycymaking process, regulations:</u> The department is responsible for the approval for medical products and pharmaceuticals as well as control of all clinic researches required for the development of drugs.   |
| Non-Governmental Organizations (NGOs)            | 2 <sup>nd</sup> | <u>Coordination and advisory:</u> NGOs facilitate the medical tourism by promoting healthcare services, encouraging institutions to adopt international standards for the maintenance of service quality. E.g.: The Joint Commission International, The Medical Tourism Association  |
| Medical Schools                                  | 2 <sup>nd</sup> | <u>Education, research, healthcare provision:</u> Medical schools of the Ivy League Colleges in the US have strong research capability which consequently support the health ecosystem by introducing new technics and methods in treatments. This helps increase the attractiveness of the US as a medical tourism destination. |

\*Interest Level: The term stands for one stakeholder's position with the specific topic. In this table, 1<sup>st</sup> level of interest indicates direct relations with healthcare industry and medical tourism while 2<sup>nd</sup> degree suggests indirect or less direct relations with healthcare industry and medical tourism.

Source: PwC Analysis

### 3.2.2.3.6 *Legislation*

Decentralized governance model in the US subjects healthcare system to divergences at the regional level. In some states such as California and Texas, there are strict rules due to their geographical proximity to Mexico since US residents easily demand affordable medical services, products and medicine from there. However, this fragmented health care system of the US also indirectly leads a way to ease the burden of the US citizens by offering an option to outsource their medical needs.

Establishment of the Affordable Care Act triggered health insurance companies to show an effort in order to reduce the negative impacts of high-cost medical treatment services. In this context, companies have started to expand the coverage of their insurance packages for medical tourism. Also, the medical malpractice law in the US pushes health insurance companies and medical tourism intermediaries to address their patients to high service quality clinics that are accredited and recognized by international boards. Regarding quality and standards in the US, the US based JCI (Joint Commission International) is the recognized global leader in healthcare accreditation and covers over 44 countries. Moreover, in the US, there are other accreditation schemes such as the JCAHO (The Joint Commission on Accreditation of Healthcare Organizations), the American Osteopathic Association and DNV's National Integrated Accreditation for Healthcare Organizations, which help standardize the quality of service and minimize the risk. Also, there are many other healthcare accreditation schemes that are internationally recognized. As a result of these regulations, rights of patients are under protection and quality of medical services are ensured.

Main federal regulatory bodies of healthcare system in the US can be named as The Federal Trade Commission (FTC) and Food and Drug Administration (FDA). FTC is the only federal agency that provides consumer protection and competition jurisdiction in various sectors including healthcare. It enforces the laws that prohibit anti-competitive, unfair and deceptive business practices and promotes informed consumer choice.<sup>211</sup> Its scope of authorization includes hospitals and physicians. It evaluates mergers between hospitals in order to preserve competition in local hospital market and investigate unlawful price fixing by physicians and healthcare institutions. The Commission is active in enforcing the antitrust laws in the pharmaceutical, medical devices, and diagnostic systems industries as well. In addition, FTC regulates advertising and marketing conducted in the healthcare market.

FDA is a federal agency, within the Department of Health and Human Services, who is responsible for the maintenance and promotion of public health. FDA's extraterritorial jurisdiction is limited; however, the Agency's regulatory power may reach out beyond the country's borders. It regulates health industry by testing and approving medical products or services, labeling these products and playing an effective role on the distribution and the content of advertisements of all health-related products and services including pharmaceuticals, biopharmaceuticals and medical devices.

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<sup>211</sup> Prepared Statement of The Federal Trade Commission Before the Subcommittee on Interstate Commerce, Trade, and Tourism Committee on Commerce, Science and Transportation United States Senate

Another important pillar of legislation which directly affects the number of medical tourists and the attractiveness of a destination country is the visa policy of a given country. Unlike other medical tourism destinations, the United States does not have any particular visa category for medical procedures. International patients who would like to get medical treatment in the US need to proceed the same submission as the tourist visa (B-2 type). Also, several documents are required to prove the unavailability of the treatment in patient's home country and the necessity of this specific medical treatment to be received in the US.

### *3.2.2.3.7 Marketing*

Approximately 1.6 million medical tourists get treatment in the US every year<sup>212</sup> due to its expertise in the most complicated health conditions and high medical innovation capabilities. The state-of-the-art medical facilities and use of advanced technology along with expertise and infrastructure attract international patients. United States provides cutting-edge services in oncology, cardiology, neurology, chemotherapy, radiation and robotic surgeries. Having hospitals that are specialized in various treatment types -such as Arkansas and Banner Heart Hospitals, Boston and C.S. Mott Children's Hospital, Fox Chase and H. Lee Moffitt Cancer and Research Hospitals, City of Hope Helford Clinical Research Hospital, and Hospital for Special Surgery- carry the country onward in terms of its visibility in particular treatment services. The country's specialization in medically complex surgical procedures also makes use of state-of-the-art medical technologies such as robot-assisted surgeries, virtual reality based medical services, and high facilitation from internet of things applications which bring high precision and quality in healthcare services.

As a marketing strategy, hospitals display the profile and qualifications of their health professionals, who are nationally and internationally recognized practitioners, on their websites. International collaborations on professional mobility between countries and hospitals also reinforce the brand image while training the incoming practitioners on niche specialties.

Furthermore, "travel to receive care" strategy is proposed by local governments collaborating with insurance companies. The objective is to address the patients to Centers of Excellence in order to meet their medical problems such as cardiac care, orthopedics and cancer treatment with high level of expertise (Medical Tourism Training, 2019). Hence, with the integration of Center of Excellence model and self-funded insurance plans, medical travel option becomes more common for patients.

Effective online marketing strategies which include selection of right target groups, segmentation of the offered products and reaching the specific groups through the appropriate channels, play a major role in the success of attracting medical tourists to the country. Besides the technical factors that serve as marketing material in order to promote the United States as a destination country, various online and traditional marketing tools are being facilitated such as universally acknowledged health magazines and global medical conferences. Also, channels such as TV commercials, billboards, online and social media advertising tools are used in order

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<sup>212</sup> Patients Beyond Borders

to converge the demand of international patients to the United States. A matrix for medical tourism industry specific marketing strategy of the US can be found as follows (See Table 28).

**Table 28. Medical Tourism Industry Marketing Strategy of the US**

| Factors that Serve as Marketing Material for the United States | Definitions  |
|--|--|
| <b>Quality of Healthcare</b>                                   | <ul style="list-style-type: none"> <li>• High government health expenditure</li> <li>• Highly developed medical infrastructure</li> <li>• Globally acknowledged specialized hospitals</li> <li>• Expertise in complex medical specialties</li> <li>• Huge investment in medical technology and precision medicine</li> <li>• Highly competitive and lucrative pharmaceuticals and healthcare sector</li> <li>• Valuable brand image of American med-schools</li> <li>• Professional mobility collaborations between international hospitals and academics</li> </ul> |
| <b>Technological Advancement</b>                               | <ul style="list-style-type: none"> <li>• Availability of state-of-the-art medical technologies</li> <li>• Facilitation from robot assisted surgeries</li> <li>• Virtual reality based medical services and trainings</li> <li>• Innovative diagnostic techniques</li> </ul>  |
| <b>Accreditation</b>   | <ul style="list-style-type: none"> <li>• Ownership of globally recognized accreditation institutions (such as JCI)</li> <li>• Operationalization of international medical travel departments in the hospitals</li> </ul>   |
| <b>Traditional and Online Marketing Tools</b>                  | <ul style="list-style-type: none"> <li>• IoT based healthcare marketing</li> <li>• Broad usage of social media platforms</li> <li>• Online portals that have vast amount of data on U.S hospitals, their capacity, common specialties, doctor profiles etc.</li> <li>• Hosting and conducting international conferences and tradeshow on medical tourism</li> <li>• Publishing world-renowned magazines and journals on health and medical sciences</li> </ul>   |

Source: PwC Analysis

## **4 Policy Recommendations**

## 4.1 Classification of OIC Member Countries

In our analysis below (See Figure 95), OIC countries are classified according to their health infrastructure development, which implies their capabilities related to providing healthcare services to international patients as well as their citizens, and the respective countries' demand for receiving medical treatments abroad. Health infrastructure development is measured with 5 parameters: hospital beds, medical doctors, specialist surgical workforce, dentists, nursing and midwifery personnel. On the other hand, medical tourism demand is measured with the only available cross-country data, which is health related travel import (See Table 29).

Due to data limitation in specific OIC countries regarding both demand and infrastructure indicators, specific years has been selected where the most data is available in the mentioned sources. Countries which do not have any data in the reference year have filled with the most proximate year's data to the reference point. As a result, the data gathered for all sub-indicators under infrastructure was scaled in between 0-100 and the average of each indicator has constituted the overall infrastructure index score of the countries. On the other hand, in order to evaluate demand potentials of OIC countries, medical tourism import performance was calculated by using 2014-2017 average import levels of the countries.

**Table 29. Indicators Related to Medical Tourism Supply and Demand Index**

|   | INDICATORS  | YEAR              | SOURCE     |
|---|---|-------------------|------------|
| INFRASTRUCTURE<br>RELATED<br>INDICATORS | Hospital Beds per 10,000 population                   | mostly 2011       | OICStat    |
|   | Medical Doctors per 10,000 population                 | mostly 2014       | OICStat    |
|   | Specialist surgical workforce per 100,000 population  | mostly 2014       | World Bank |
|   | Nursing and Midwifery Personnel per 10,000 population | mostly 2014       | OICStat    |
|   | Dentists per 10,000 population                        | mostly 2014       | OICStat    |
| DEMAND                                  | Health-related Travel Import                          | 2014-2017 average | UNCTAD     |

Analysis of OIC countries based on health infrastructure and medical tourism demand displays regional differentiation that while Asian and Arab group constitute high potential supply and demand countries, African group performs poorly both in demand and infrastructure indicators.

Countries in *Zone I* have infrastructure capacity that is above the average of OIC countries while the demand for seeking treatment abroad is below the average. Therefore, *Zone I* countries carry high potential to become key medical tourism destinations for both OIC and international patients. Regarding the medical tourism average export levels in between 2014-2017 period; Turkey, Jordan, Malaysia, Tunisia and Lebanon come to forefront among all analysis countries

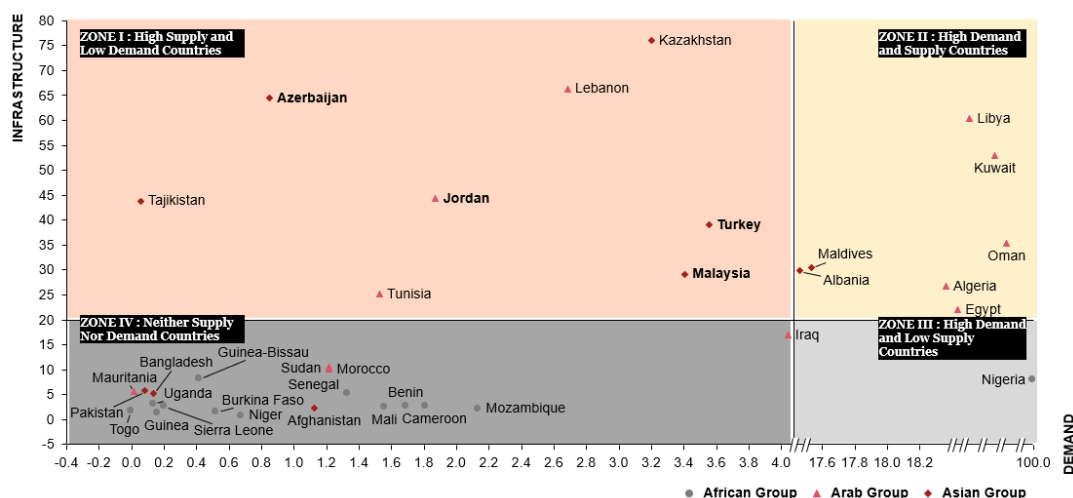
which implies the fact that these countries have already realized their medical tourism potential to a certain extent.

Deep diving into the medical infrastructure capacity of *Zone I* countries reveals differences regarding infrastructure parameters. For instance, Kazakhstan as the outlier of the group display a good performance in each parameter except dentist density. Lebanon, on the other hand, has a good performance regarding medical doctors, specialist surgical workforce and dentist density; however, the country lags behind in nursing and midwifery population as well as hospital beds per 10,000 population. Conversely, countries such as Malaysia, Jordan and Tunisia fall behind in specialist surgical workforce density while Turkey and Azerbaijan illustrate a good performance.

In terms of Zone II countries which dominantly consists of Arab group countries are above the average of both indicators. Regarding their performance in infrastructure parameters; Oman, Algeria, Maldives and Albania have a poor performance in specialist surgical workforce density while Egypt comes to forefront in the zone. Although *Zone II* countries are characterized with high potential in medical tourism demand and supply, export level of *Zone II* group remains low.

In *Zone III*, where infrastructure development is low and demand for medical tourism is high, there is only one country (i.e.: Nigeria). Most of the countries in Zone IV are from Africa region. The reason behind the poor performance of many African countries is due to lack of financial resources, scarcity of medical personnel and medical institutions.

**Figure 95. Medical Tourism Supply and Demand Index of Selected OIC Countries (0-100)**



Source: OIC Stat, World Bank, UNCTAD, PwC Analysis

In the advent of the classification based on supply and demand proxies of OIC countries, policy actions can be taken both in national and OIC level in order to develop medical tourism. Actions regarding improvement of medical education, medical R&D activities, investment in branch hospitals to build medical specialization in specific fields, promotion of marketing strategies as

well as creation of country brand image in medical tourism can be prioritized in *Zone I and Zone II* group countries which carry high potential in supply side.

On the other hand; facilitation from medical personnel exchange programs among OIC countries to boost knowledge sharing and capacity building would create a bilateral effect by enhancing the medical capabilities of *Zone III and Zone IV* countries through knowledge spillover while *Zone I and Zone II* countries who conduct exchange programs would have a ground to increase their visibility in the other countries. Collaboration in between OIC member countries through organizing joint medical tourism conferences, streamlining medical visa procedures between members as well as taking government level actions by establishing bilateral protocols for medical cooperation, hospital alliances and health insurance would positively affect medical tourism for both supply and demand countries.

## Policy Recommendations for OIC Members Countries

| Recommendations       | Country classification   | Action level* |     | Collaboration Platforms for Stakeholders   | National** |    | OIC |
|-----------------------|--|---------------|-----|--|------------|----|-----|
|                       |  | N             | OIC |  | P          | Pt |     |
| <b>Infrastructure</b> | Medical schools focused education infrastructure including R&D infrastructure can be supported through additional investments  | ✓             |     | Medical Service Quality Accreditation Body specific to healthcare provision in OIC countries can be established in order to supervise countries and bring standards at international level                   | ✓          |    | ✓   |
|                       | Investments in branch hospitals can be increased in order to encourage building expertise in specific fields of health   | ✓             |     |  |            |    |     |
|                       | Exchange program for medical personnel among OIC countries can be implemented in order to boost knowledge sharing and allow capacity building among healthcare personnel                               |               | ✓   | Education Council/Accreditation Body for the Exchange Program can be established in order to arrange the mobility of medical personnel   | ✓          | ✓  | ✓   |
| <b>Marketing</b>      | Online platforms can be used for customized marketing strategies specific to the target groups such as halal tourism for populations with religious concerns   | ✓             | ✓   |  |            |    |     |
|                       | Country image and branding can be improved and redesigned if necessary in order to increase the attraction level of the country  | ✓             | ✓   | Halal Tourism Accreditation Council can be established in order to secure the standards necessary for halal medical tourism  | ✓          |    | ✓   |
|                       | International medical tourism conference among OIC countries can be organized in order to display their capabilities and learn from each other   | ✓             |     |  |            |    |     |
| <b>Legislation</b>    | Health Tourism Data for OIC countries including supply and demand for specific treatment types can be collected and shared among OIC countries to promote future collaboration efforts                 |               | ✓   | OIC Health Tourism Statistical System can be established in order to achieve efficiency and effectiveness of medical tourism activities  | ✓          | ✓  | ✓   |
|                       | Protocols between governments for bilateral or regional agreements between public/private stakeholders including insurances and hospitals can be realized in order to sustain the exchange of patients |               | ✓   |  |            |    |     |
|                       | A new special visa type specific to medical tourism can be put in force in order to facilitate traveling for medical tourism purposes among OIC countries  | ✓             | ✓   | Establishment of effective medical tourism coordination councils to integrate public and private sector efforts, maintain country level service standards and international patient journeys in each country | ✓          | ✓  | ✓   |

○ : recommendations for facilitating both demand and supply sides of medical tourism among OIC countries

● : recommendations for improving supply side of medical tourism in OIC countries

Source: PwC Analysis

\*Action Level: N: National Level, OIC: OIC Level

\*\*National Level: P: Public, Pt: Private

## 4.2 Infrastructure Related Recommendations

### *1. Health infrastructure can be strengthened through investments in education and research and development (R&D) activities related to healthcare*

Countries which are part of global medical tourism, actually possess a certain level of infrastructural capacity in healthcare sector. In other words, healthcare infrastructure including a sustainable healthcare provision system along with sufficient number of healthcare personnel and hospital capacity constitutes the most fundamental component to execute medical tourism. Countries which like to be engaged in the medical tourism industry, therefore, need to strengthen their healthcare infrastructure not only for international patients, but also for their citizens. From the medical tourism perspective, investments in health sciences and medical education have the potential to carry the country to a state where resources and knowledge alter its current situation in the world as regards healthcare provision. Quality of medical education and healthcare personnel bring the reputation of the country which attracts international patients.

Countries, for instance, which do not have sufficient number of healthcare personnel to treat their own citizens cannot either provide medical services to international patients. As a matter of fact, they produce outbound patients in order to meet their citizens' medical needs. In this sense, working to fix the problem from the beginning will let countries sustain their needs in the first place. As for the countries where a certain level of health infrastructure is attained, further investments in health-related education and R&D activities will positively affect the quality of services and the capacity in healthcare provision. For instance, establishing medical schools, laboratories and research institutions will allow raise additional skilled healthcare personnel as well as produce innovative medical products and services. Also, efforts to increase the quality of education content will contribute in capacity building in the industry. Such developments, as a result, have the impact to increase the competitiveness of a given country in medical tourism at the OIC and global level.

### *2. Specialization in the fields of health can be encouraged in order to provide a range of medical services and treatments*

One of the main motivations among individuals who prefer traveling for medical purposes is reputation in specific medical services of destination country. Medical services provided within the scope of medical tourism, therefore, necessitate a special expertise and treatment quality in order to be differentiated from other competitors. Countries with a tendency to make a difference in medical tourism industry can enhance their healthcare provision by specializing in certain treatments and/or medical techniques by strong share of research technology. In this regard, introducing branch hospitals in line with the country's medical needs can help build capacity in complicated treatments. In comparison to general hospitals, branch hospitals receive more complicated cases in specific fields of health. This, as a result, gives the medical personnel the opportunity to excel at their specializations. Additionally, such a specialization in healthcare provision would pave a way to construct brands not only in doctors' name but also hospitals and clinics can become globally renown. As the country develops expertise in specific treatments

and techniques, the reputation will be developed in accordance with the success of the results. Such a reputation of a country can help stand out among global competitors in medical tourism as well.

### *3. Exchange program for medical personnel among OIC countries can be implemented in order to boost knowledge sharing*

In response to the medical needs of individuals and societies, health sciences discipline work on development of new techniques and tools. The way to treat diseases may vary across countries. Countries develop their own unique approach in relation to their level of health infrastructure in terms of medical education and R&D capacity. From this point of view, knowledge and experience sharing becomes important for medical personnel in order to adopt different approaches into their practices. The communication between medical personnel as regards the advancements in the healthcare sector facilitates dissemination of best practices in the field. Such a blend of knowledge between healthcare professionals can create a larger impact. It has, in fact, the potential to boost the industry as well.

The mobility of medical personnel for a limited time period will allow both participating countries to increase their capacities in healthcare provision. The program cannot only serve in favor of countries at a good state in health sector; but also, it can indeed offer advantages for the countries with low level of healthcare infrastructure. Doctors who participate in the program do not solely transmit their personal knowledge and experiences to their colleagues in the partner country. Instead, they also represent a holistic approach of how their country of origin applies medicine in daily life in terms of health provision. This level of knowledge sharing between partner countries helps building or reforming the healthcare provision model as well as enabling adoption of new treatment techniques. Such an exchange program, for this reason, can nurture the healthcare industry at healthcare personnel and healthcare provision levels among OIC countries.

## **Recommendations for Collaboration Platforms of Stakeholders as Regards Infrastructure**

### *1. Establishment of Medical Tourism Accreditation Body for OIC countries*

In accordance with the recommendations to improve the healthcare infrastructure through investments in medical education and health related R&D activities as well as supporting specialization in complicated diseases, countries are expected to take their healthcare provision capacity and capabilities one step further. Improvements in the healthcare provision can also have reflections on medical tourism. However, healthcare provision at international level necessitates following international standards as well in order to secure health provider and patient rights. From this aspect, an accreditation body to propose and follow the activities conducted by healthcare providers within the scope of medical tourism in OIC countries can facilitate coordination and standard setting in the ecosystem. The accreditation system should require in the first place, implementation of global standards such as quality of medical services, quality of medical facilities, quality of medical personnel. In order to make the accreditation body unique to OIC countries, additional standards that OIC countries specifically demand in

healthcare provision can be included in the list of requirements. For instance, from the halal tourism perspective, OIC countries' specific requirements to be accredited by the body could be availability of halal food or prayer room in the hospitals/clinics. Such a service which is secured by the accreditation body can affect patients' decisions by respecting their personal concerns when they look for the best option to meet their medical needs.

## *2. Establishment of Education Council for the OIC Healthcare Personnel Exchange Program*

Complementary to the recommendation about implementing an exchange program for healthcare personnel among OIC countries in order to encourage knowledge and experience sharing, a regulatory body is needed for the organization and coordination of this international mobility. In this sense, establishment of an education council for the OIC Healthcare Personnel Exchange Program will function in a principal similar to the Erasmus student exchange program between the European countries. That is to say, the Education Council will undertake the coordination by creating a network of institutions which are willing to participate in the Program. Also, the Education Council should introduce a set of qualifications/requirements which have to be fulfilled by the partner institutions as well as the candidates. For example, the health professionals will be in contact with their own institution. The Education Council will receive the applications from the partner institution and will proceed the process. All qualifications set by the Education Council will be taken into account in the evaluation of matching process of health professionals with partner institutions. The health professionals will be placed in one of the listed institutions in accordance with their current professional expertise and further capabilities they are eager to develop within the scope of this exchange program. The exchange program, as a result, does not only intend to build fellowship between institutions or to facilitate technical knowledge transfer at institutional level but it also enables a platform to share professional, personal and cultural experiences at individual level.

## **4.3 Marketing Related Recommendations**

### *1. Online platforms can be used for customized marketing strategies towards target groups*

Online platforms, especially popular social media channels such as YouTube, Facebook, Instagram, Twitter, Pinterest, etc. provides virtual environments to express opinions and preferences. Although these platforms are not particularly designed for marketing, advertisements are usually permitted to be seen in system. Data collection from the registered accounts enables algorithms to suggest personalized ads in parallel to the users' activities. From the medical tourism perspective, such platforms can be used in order to attain the target groups. Based on their personal choices, matching treatments can be displayed on the channels they frequently use. Such advertisement strategy on medical products and services is especially applicable for cosmetic procedures towards those who are interested in wellbeing and beauty products. As for OIC countries, such an interactive tool can be used in order to understand the needs of target population. This will allow to develop segmentation strategy with the objective to respond in the most effective way to the needs of target population within the segment. For

instance, for target groups who have cultural or religious concerns, the supplier can offer additional services such as Halal food; or to those who put an emphasis on privacy, rooms with higher privacy measures and registration system can be made visible.

## *2. Marketing and branding activities can be employed in order to boost the image of the country*

Countries attract international patients with their capacity and capabilities in health provision. However, they increase their chance to be preferred as a destination country as much as their country image allows this position. In this sense, security and trustworthiness step forward as factors which influence country's brand image. When country image is problematic as regards economic or political circumstances, it becomes important to obtain an improved image in the first place. In order to convince international communities towards a shift in their perception about the country, rebranding strategies can be introduced. Rebranding helps spread the message that the country is safe and trustworthy for all activities undertaken within its borders, including healthcare provision as well. For instance, integration of insurance systems is defined as an effective model for medical tourism activities regarding ease and secure payment procedures available in different countries.

Medical tourism is not solely about health provision and medical services. Instead, second pillar of medical tourism consists of the tourism component. As a supporting factor to medical tourism, touristic activities such as natural reserves, historical sites, cultural heritances, entertainment facilities can be promoted. For procedures which do not require any inpatient treatment, touristic activities in the same city or province with the hospital can become a pull factor to attract international patients. This is why, it is also important to highlight the countries natural, historical and cultural elements within medical tourism brand in order to make it desirable as a destination.

## *3. International Medical Tourism Conference in order to follow up the novelties in the sector*

Conferences for medical personnel have always been a platform where they exchange their knowledge and experiences and learn from each other. It is also an effective method to expand the network. Therefore, in order to keep medical doctors serving in OIC countries in connection with each other, a conference dedicated to medical tourism can be organized. Such a conference not only will serve to gain knowledge on novelties in the sector as regards treatments and medical services but also it will foster an environment where healthcare providers can promote their facilities and services. This will consequently boost the dynamism in the industry by encouraging stakeholders to seek always much better and innovative features to display and collaborate on all aspects of treatment.

## *4. Database on health tourism can be established for the use of OIC countries in order to support further collaborations*

Data collection in medical tourism constitutes a big problem. Not only because there is no unified methodology to collect the data, but also there is no platform where data can be collected and processed. Countries experience challenges in finding the appropriate information as regards activities taken place in medical tourism industry. The lack of data collection methodology and database creates obstacles in terms of marketing as well. Both side of the medical tourism actors (suppliers and demanders) can take data-based concrete actions for future collaborations. For instance, supplier countries can provide data on their medical services that are integrated in the medical tourism whereas demanders can list their priorities in medical treatments. Such a database can open a platform for collaboration not only in terms of patient-treatment exchange but also in terms of capacity building in healthcare provision as well. OIC level data sharing in medical tourism will facilitate both supply and demand side among the region.

## **Recommendations for Collaboration Platforms of Stakeholders as Regards Marketing**

### ***1. Establishment of Halal Tourism Accreditation Body***

In correspondence with patients' concerns and needs, halal tourism becomes an important pillar to focus on in medical tourism industry in OIC region. Therefore, international standards to define the content of halal tourism are needed. Healthcare providers which will be accredited with the Halal Tourism certification should have these basic standards in terms of respecting the essentials of halal tourism. Especially, food and beverage choices and treatment methods become the main concern in this concept. Halal food and halal treatment methods which are based on vegetal or halal animal products are particularly in demand by the populations who prefer halal tourism as a component of their medical tourism activities. In order to guarantee the quality and safety of procedures and services as halal, establishment of a reliable accreditation body which is recognized internationally can have the potential to bring regulations and standards in the industry. In line with the marketing strategies, being a member of a such institution as a healthcare provider will increase the likelihood of reaching wider communities within OIC countries.

### ***2. Establishment of OIC Health Tourism Statistical System***

With the objective to produce more concrete growth and collaboration strategies, data-based decisions play a crucial role. However, in medical tourism industry, not only country level data becomes an obstacle but also at global level there is no standardization in data collection. For this reason, in OIC countries as well, the data collection and interpretation pose a challenge against all analyzes. In order to tackle this problem, as it is recommended in the marketing related recommendations, a database where all countries can contribute with their indicators in a standard format can alter the situation. The database can only be operationalized by the establishment of a related statistical system. The system should also be integrated and aligned with other global data sources such as World Bank in order to complement the missing indicators with each other. For instance, as an important contribution to the development of a new system, the data collected at OICSTAT under SESRIC can be supported with services sector data which will also include health and tourism separately. Additionally, medical tourism data indicators can be defined and integrated into the current OICSTAT database or to be established as a new statistical system.

#### 4.4 Legislation Related Recommendations

1. *Protocols between governments for bilateral or regional agreements between public/private stakeholders including insurances and hospitals can be realized in order to sustain the exchange of patients.*

Despite the fact that liberalization in healthcare industry have started to dominate the trade relations, countries bring alternative solutions to sustain and protect the industry at national level. Bilateral, regional and multilateral agreements in order to increase health mobility between the signing parties, serve as a stimulating factor to boost trade relations. As a result of these agreements, partner countries benefit from the increase in health mobility. This allows the country which is insufficient of meeting medical demands of its citizens to get treatment without pushing its health system's limits while it enables the other country to provide healthcare services and meet its potential in medical tourism. These intergovernmental protocols may take multiple forms such as patient exchange programs, pre-diagnosis services, alliances between healthcare providers and streamlining health insurance schemes.

For instance, opening pre-diagnosis center in a partner country would give the opportunity to the supplier country to display its medical services. On the other side, the partner country would benefit from medical knowledge and experience of the visiting medical staff coming from the partner country. As for protocols signed between healthcare providers and health insurances, it is possible to affirm that both sides will benefit from medical tourism schemes. On the one hand, the insurance side eases the economic and infrastructural burden of healthcare provision by addressing the patients to alternative healthcare providers. On the other hand, the receiver country would benefit from its health infrastructure and medical knowledge in order to meet the additional patients' needs while creating economic profit. As a result of government level actions, medical tourism between OIC countries would be facilitated by being engaged to bilateral or multilateral agreements and legislative procedures.

2. *A new special visa type specific to medical tourism can be put in force in order to facilitate travelling for medical tourism purposes among OIC countries.*

Regulations of both source and destination countries may promote or hinder development of medical tourism. Government level attempts to promote inbound medical tourism are closely related to ameliorating visa procedures for foreigners who seek medical treatments in the country. In order to flourish medical tourism in the country, especially emerging countries have been implementing visa waiver programs that include target markets and neighbor countries. Besides from visa waiver programs, different visa procedures such as e-visa, smart visa or medical visa types that shorten and streamline the visa policies have been facilitated. Countries which ease visa procedures for international patients or devote a specific visa type for medical tourism benefit from increasing medical tourist inflow. Therefore, modernization including digitization of visa procedures that is required for international patients and

creation of a particular visa type for medical tourists coming from OIC countries would boost health related travel among OIC countries while increasing the member countries' destination attractiveness for international patients.

### **Recommendations for Collaboration Platforms of Stakeholders as Regards Legislation**

- 1. Establishment of national medical tourism coordination councils to integrate public and private sector efforts, maintain country level service standards and international patient journeys in each country.*

Medical tourism as an industry has a multi-headed stakeholder structure which necessitates effective coordination in between actors for the development of the sector. In order to increase the interaction between these stakeholders and ensure accordance in between them, countries can benefit from the establishment of a national medical tourism coordination council which define and coordinate the strategic priorities. Identifying issues that foster or impede the growth of medical tourism and assigning related actions to the most relevant actors while keeping track of the stakeholders' acts can regulate and integrate the efforts of public and private sector efforts in an efficient way. Therefore, establishment of national medical tourism coordination councils that are composed of prominent executives of the sector can harness the knowledge and experience sharing between stakeholders as well as establish an initiative for collaboration in the pursuit of mutual objectives.

### **Conclusion**

Medical tourism has become a globally growing industry with the improvements in various types of medical applications and services. Due to global trends such as aging population, increased international mobility and prevalence of information technologies that enable the patients to reach information on treatments, healthcare facilities and costs in an easy and quick way have constituted the ground for the growth of the sector.

Established markets portray a developed healthcare service capacity in terms of the number of healthcare facilities and hospital beds as well as qualified medical personnel density. Having world-renown doctors, facilitating innovative treatment methods and developing medical specialties enable these markets to build a global reputation in specific product and services. Although established markets mainly serve as top medical tourism destinations with high quality treatment options, these countries at the same time may function as demand countries. Due to limited insurance scope, high waiting times and/or high medical costs; citizens prefer to seek treatment abroad which results in high demand for health-related travel from established markets.

On the other hand, emerging countries which declare medical tourism as one of the key sectors have been in an effort to develop their health infrastructure capacity including the human capital, which is the core of medical tourism. In order to support the enhancement of health industry, emerging countries have been benefiting from modern targeted marketing techniques such as online marketing, target product and target country selection in line with the developed

specialties of the country. Additionally, legislative arrangements that would regulate and promote the industry were put into force such as incentive schemes and streamlining visa procedures through e-visa or medical visa applications.

Country specific health provision and financing methods affect the country's position with regards to being a medical tourism destination or source country. Since these terms are not mutually exclusive concepts, the nature of medical tourism makes it possible to be a source and destination country simultaneously. On the other side, different organizational and legislative structures of the countries produce different results which may serve as pull or push factors for medical tourism. Therefore, understanding the country-specific mechanisms and the outcomes produced by them constitute a fundamental focal point for the development of the industry. Furthermore, bilateral agreements introduce procedures and principles between countries by means of establishing service delivery standards, providing coverage for social securities and general health insurance and authorizing healthcare organizations. Such protocols help secure both parties' interests. While one party is granted with the delivery of high quality of services, the other party promises the mobility of patients when there is need. Also, payment process for medical procedures is assured by the integration of insurance systems.

Hence, the aim of this study was to understand medical tourism industry dynamics while categorizing the best practice applications of both established and emerging markets. In order to present medical product and service trends in OIC and non-OIC countries, current situation was examined in terms of demand and supply characteristics of pioneer medical tourism countries. While considering 5-dimensional framework, medical tourism ecosystems in selected countries (3 Non-OIC countries: Germany, India and USA and 4 OIC member countries: Azerbaijan, Jordan, Malaysia and Turkey) were evaluated through a comparative analysis including the country's medical tourism performance and the hidden potential. Consequently, last section presented policy recommendations regarding classifications of OIC countries according to healthcare development capabilities by proposing action plan for collaboration of stakeholders in a shared environment that enables medical exchange among member countries. It is expected that implementation of these policies among OIC countries will further promote medical tourism in the region.

For the purpose of better understanding medical tourism market, challenges related to limited market data and different methods in gathering the data shall be aligned with the global practices. On the other hand, for fostering the development of the sector regional collaboration efforts in health industry would boost the growth of the sector while enabling knowledge spill-over and capacity building in the industry.

Unpredictable crises such as the COVID-19 epidemic that we have experienced during 2020, directly affect health systems. Crisis management is an important element of the health systems and medical tourism depends on the sustainability and quality of health systems. Therefore, medical tourism has also been affected by the emergency situation. Such extraordinary situations create disruptions on the healthcare provision due to increased demand. The response of health systems in crisis situations also reveals success in medical tourism. It is, therefore, important to examine the impact of COVID-19 epidemic on health systems in order to adapt the health tourism roadmap for the post-crisis period.

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