

Management Summary

This management summary outlines the main conclusions of the project "Medical Tourism".

1. Introduction and Scope

The objective of this report was to produce 1) a price benchmarking of the treatments in the top medical facilities in selected countries as well as 2) a map showing the inbound and outbound medical tourist flows. This was achieved by researching, identifying and analysing the aforementioned flows.

The lack of a source that gives a concise overview of the industry was the main concern while working on this project. For this report, the term medical tourism is defined as: *travelling abroad, outside of one's natural health care jurisdiction, with the intent of undergoing a medical procedure, whether it be necessary or elective.* This report focuses on the industry from all main target groups' view points, i.e. providers and consumers, in order to evaluate the demand and supply impact in the market. Facilitating companies were also considered, although not examined in detail.

Issues underlying the validity and reliability of this explorative project are complicating the accuracy of this young industry:

- *Limited availability of data* within the field of medical tourism thanks to it being a recently developed market. Organisations with an interest in the industry tend to keep information to themselves in order to maintain a competitive advantage and some countries tend not to record medical tourism data.
- *Patient confidentiality* makes it difficult to obtain information on medical tourists due to restrictions enforced to maintain privacy.
- *A missing uniform accreditation system.*
- *Knowledge gaps* amongst different players in the market: ministries of health and tourism, medical professionals, legal experts and travel suppliers as well as other specific services involved in the medical tourism industry. Therefore, the medical aspects are described in general, instead of providing details.

Country Selection

The main reason why the studied countries were chosen as being major destinations for medical tourism, were the number of medical tourists visiting the country. Moreover, in order to have an overview that it is as global as possible, countries were also chosen to be spread over the globe, covering each continent / region famous for medical tourism.

Four outbound countries have been studied: the United Kingdom, USA, the Netherlands and Russia. The UK and US are the countries from which people most frequently leave in order to seek medical treatment elsewhere. Due to geographical proximity to Germany the Netherlands are included. Russia was chosen, as it is an emerging market with the potential to grow hugely in the field of medical tourism.

Inbound Countries			Outbound Countries
• Brazil	• India	• Singapore	• The Netherlands
• Belgium	• Jordan	• South Africa	• Russia
• Costa Rica	• Malaysia	• South Korea	• United Kingdom
• Czech republic	• Mexico	• Thailand	• United States
• Dubai	• Philippines	• Turkey	
• Germany			

Selection Criteria for Top Facilities

Five top medical facilities were chosen and described for each inbound country. In some countries less than five facilities were available, according to our criteria. A specific procedure was adopted in order to select a top medical facility (according to project defined guidelines). The criteria to select a top medical facility, were

- 1) JCI accreditation: Joint Commission International– the largest international hospital accreditation system.
- 2) If a country lacked JCI accreditation, other recognised international or national accreditation or quality systems were taken into account.
- 3) An international orientation, i.e. international department within the hospital.

The inbound country analysis details the consumption phase of the medical tourists' stay abroad. It covers only the tangible aspects (e.g. services offered and capacity of medical facilities) and not the intangible factors (e.g. the personal experiences and quality of service). This is due to problems finding objective information and confidentiality of ex-medical tourists' data.

Treatments

The chosen medical treatments represent those most often sought abroad based on our preliminary research. The division between necessary and elective procedures allows all country specialties to be embodied and also encompasses more expensive treatments as well as cheaper ones.

Necessary Treatments	Elective Treatments
<ul style="list-style-type: none"> · Cardiac bypass · Gastric bypass · Knee replacement · Hip replacement · Hip resurfacing 	<ul style="list-style-type: none"> · Facelift · Botox · Lasik eye surgery · Breast augmentation · Rhinoplasty · Liposuction · Dental implant

The report is divided into four chapters covering general background information of the market, analyses of the selected inbound countries, analyses of the selected outbound countries and a general conclusion of the research. The main findings are described below.

2. Introduction to Medical Tourism

"Medical tourism" has been a recognised market since 1980's and is now a rapidly developing. The increase in technological and medical research and developments, augmented product consciousness and globalisation are among the most influential trends that affect the industry.

Consumer behaviour can be summarised in four main reasons why patients travel abroad for medical care: a) availability of treatments, b) quality of health care, c) reduced waiting times and d) cost savings. All these factors together could result in even more countries taking initial steps to attract foreign patients as well as a surge in medical tourism products, which will allow the industry to flourish.

Current issues lie in the fact that there is a global deficit of information about medical tourism which could hinder the industry's potential. This is often due to countries wishing to maintain a competitive advantage or a result of limited information having been collected or recorded. Medical tourism often provokes ethical and legal discussions causing concern for the industry. Nevertheless, measures are being taken to minimise these factors with new laws, such as the proposed EU Directive for Cross-Border Health Care, and third parties being established. Even though there is currently a large number

of accreditation bodies, other issues are rooted in the absence of a uniform international hospital accreditation system and the varying quality of medical services provided.

To conclude, medical tourism has the capacity to be a highly lucrative market place, which can be seen in the increasing countries showing interest. This could be especially beneficial for developing countries to boost their economies by generating extra income. Many opportunities can be taken advantage of, and the majority of threats have the potential to be overcome. With the revenue of the medical tourism market predicted to grow by USD 40 billion (€ 27 billion) by 2010, it is clear that interest in the market is growing.

3. Inbound Medical Tourism Destinations

The countries are mentioned in alphabetical order.

Belgium

Belgium attracts 35,000 medical tourists annually who mostly come for cosmetic and plastic surgery as well as oncology and cardio treatments despite no governmental promotion as a medical tourism destination and the current lack of a national accreditation system (alongside no JCI accredited facilities). The reason why many choose to go to Belgium for their treatments are mainly the short waiting times, the low costs, the high quality and language ability. Virtually all medical staff speaks Dutch, French and English. Foreign patients can expect to save 56% (when compared to the US) or 26% (when compared to the UK). However, the majority comes from the Netherlands (60%) and surrounding European countries (19%) thanks to a central location within Europe. British patients account for 21% as many clinics in Belgium have agreements and co-operations with British based facilities. Belgium has the capacity to meet the needs of 50,000 more medical tourists each year.

Brazil

Brazil attracts many medical tourists each year, with US citizens accounting for 95% of them, even though the country has a poor public health care system and is relatively unsafe. This could be as the cost savings of 60% compared to the US draws them. Many medical tourists combine their treatments with a holiday, since Brazil is known as a renowned holiday destination. Moreover, the country's 20 JCI accredited hospitals are a pulling factor as well as the proximity to the US and no visa requirements. Those who come for medical reasons wish to take advantage of Brazil's reputation for cosmetic and plastic surgery. With the Ministry of Tourism's promotion campaigns, the country aims to maintain its position in medical tourism.

Costa Rica

Costa Rica attracts 150,000 medical tourists annually, thanks to being a safe, established holiday destination and its proximity to the US. The majority of these (95%) are from the US and come to take advantage of the 25% cost savings. Currently, Costa Rica specialises in dental and plastic surgery yet it is a relatively unknown destination within the industry. Promotion has recently started in order to increase the number of medical tourists by 8-9% during 2010.

Czech Republic

The Czech Republic is a potential competitor within the European medical tourism industry as it offers 17% cost saving to UK citizens and is already attracting foreign patients from the UK, Austria and Germany. The country is known for providing quality dental care and is a popular tourist destination, with Prague being the major attraction. The Czech Republic is a safe country that offers a developed infrastructure and is a part of the EU. Currently, 9,000 medical tourists are being attracted annually by its reputation for cosmetic surgery, although recent promotion has been implemented to welcome

those seeking assisted reproduction which, however, has been met with problems due to national laws.

Dubai

Dubai boasts a safe, wealthy location where Arabic and English are both spoken. It currently attracts medical tourists mainly from Germany (45%), UK (27.8%) and Singapore (10.3%). These medical tourists select Dubai due to its lower waiting times and the high quality of medical care. The workforce is internationally trained although this results in a lack of national workforce and medical teaching facilities that are recognised outside of the UAE. Dubai's specialisations focus on cardiology, orthopaedics, oncology, cosmetic and plastic surgery and dermatology. Promotion of medical tourism is increasing with the construction of the Dubai Healthcare City and it was hoped that the medical tourism revenue will increase USD 1.9 billion (€ 1.27 billion) each year by 2010, with an annual growth of 15%. Given the current economic crisis, this may be too optimistic.

Germany

Germany attracts 59,000 medical tourists from 163 countries annually thanks to a central location in Europe and being a member of the EU. Despite minimal cost savings and no promotion within the medical tourism industry, Germany is a popular medical tourism destination for patients from the Netherlands (11.4%), France (10%), Austria (8%), Poland (8%) and Belgium (5.7%). These medical travellers seek cardiology, oncology and orthopaedics treatments. It is hoped that by continuing to offer experimental treatments, such as stem cell therapy, medical tourism in Germany can increase in the coming years. In addition, high quality, shorter waiting times and a possibility to combine a treatment with a holiday are offered.

India

Being a pioneer in the medical tourism industry, India offers new technology, alternative and experimental treatments alongside an internationally trained workforce who speak English. Thanks to these reasons, India has a broad spectrum of specialisations including cardiology, cosmetic surgery, dentistry, ophthalmology, orthopaedics, transplants and assisted reproduction. Nowadays, India remains a leading medical tourism country that promotes widely at both a governmental and private sector level as well as offering medical visas. These factors together have meant that India attracts around 450,000 medical tourists a year (mostly from the UK, US and South Korea) despite being a country that is often perceived by many to be underdeveloped and unsafe. Cost savings are prominent as one can expect to save 58% when compared to the US or 47% for the UK. Other driving factors are high quality of medical care, availability of treatments and reduced waiting times. By 2012, India aims to attract one million medical tourists.

Jordan

Jordan is the largest medical tourism hub in the Middle East and attracts around 250,000 medical tourists, mostly from the surrounding countries (38% Iraqis, 30% Palestine, 31% Sudan) despite targeting their promotion to the US market. These medical tourists are attracted thanks to the excellent language skills of the workforce and the high quality of care. The country specialises in cardiology, orthopaedics, cosmetic surgery and dentistry. The perception among Western patients of the strict religious rules that exist means that Jordan's reputation is underdeveloped as a global medical tourism destination. However, Jordan's potential includes cost savings of 66% when compared to the US and 57% when compared to the prices in the UK. By 2012, the country is aiming to receive revenue of €668 million from medical tourism compared to €4.34 million in 2009.

Malaysia

Malaysia has already established itself as a holiday destination but has now expanded facilities to cope with the annual 341,288 medical tourists (2007) that it receives from

Indonesia (70%), Singapore (10%), Japan (6%), Europe (5%) and India (3%). These medical tourists are attracted to Malaysia thanks to English being a widely spoken language and Malay being understood by Indonesians as well as the promotion from the Malaysia Health Travel Council. The main treatments that the country offers are assisted reproduction, orthopaedics, cosmetic surgery and stem cell therapy. By developing its position in medical tourism, and continuing promotion, Malaysia hopes to increase revenues by 23% resulting in € 394 million by 2010.

Mexico

Mexico attracts between 150,000 and 500,000 medical tourists annually but this number cannot be exactly quantified, as Americans (accounting for an estimated 95% of inbound medical tourists) do not need a visa to enter the country. Americans are attracted by Mexico's proximity to the US and cost savings of around 63%. Despite promotion coming only from the private sector, Mexico has built a reputation for offering dentistry treatments, cosmetic and plastic surgeries, orthopaedics and cardiology procedures.

Philippines

The Philippines has established itself as a medical tourism destination and receives 200,000 medical tourists annually from the US and Canada (40%), Japan and Korea (20%), Europe (17%), Middle East (7%) and Micronesia (6%). These foreign patients mostly seek cosmetic surgery, ophthalmology, cardiology or cardiovascular surgeries or oncology treatments. On top of the specialities, medical tourists are drawn in by the governmental promotion alongside with the quality of medical staff that incorporate the Filipino's natural sense of hospitality and language skills. Foreign patients can also expect cost savings of 68% of the US and 54% of the UK. All of these reasons together mean that the Philippines is hoping to receive 700,000 medical tourists in the coming years. This may be unrealistic due to the weak infrastructure and the current brain drain among medical staff.

Singapore

Singapore receives 600,000 medical tourists annually, from the Middle East (50%), Asia (45%) and Europe (5%). These medical tourists could be attracted by Singapore's reputation as one of the wealthiest and cleanest countries in the world with a well-developed infrastructure as these factors are reflected in the high quality of its health care system. Singapore specialises in cosmetic surgeries, cardiology, orthopaedics and neurology treatments alongside stem cell therapies and gastroenterology and oncology procedures. This wide specialisation, and good quality of health care counterbalance the minimal cost savings. Thanks to the existing extensive promotion, it is expected that medical tourists will amount to one million in 2012 producing a revenue of € 2 billion.

South Africa

South Africa is already established as a holiday destination and is now starting initiatives to attract medical tourists thanks to the well-developed unique selling point of 'surgery safari' packages. Despite being an unsafe, corrupt country with a weak infrastructure and no JCI accreditation, South Africa attracts medical tourists from less developed neighbouring countries (32% Mozambique, 28% Lesotho, 13% Botswana, 12% Swaziland). South Africa offers specialisations in the areas of ophthalmology, orthopaedics, cardiology, rehabilitation and cosmetic surgeries although the two latter are aimed more at the Western world. South Africa offers 30% cost savings when compared to the US. Promotion comes mostly from the private sector although the government has recently planned an initiative to increase the number of medical tourists.

South Korea

South Korea currently attracts 40,000 medical tourists mainly from Japan and China, followed by the US and Canada thanks to the cutting edge technology, which is reflected in specialisations focussing on the areas of oncology, cardiology, ophthalmology, orthopaedics and dentistry. The introduction of medical visas and construction of a

medical tourism hub on Jeju Island alongside promotion by the Council for Korean Medicine Overseas Promotion are hoped to increase South Korea's reputation as a medical tourism destination for Westerners and increase inbound medical tourists to 100,000 annually. South Korea does not offer any cost savings and so it is unlikely that the typical American medical tourists will be attracted.

Thailand

Thailand was one of the pioneering countries who first saw the potential in the medical tourism market and nowadays it remains a leading medical tourism destination. Thanks to a wide variety of specialisations ranging from alternative treatments to bariatric surgeries and including areas such as cardiology, neurology and ophthalmology as well as the world famous cosmetic and plastic surgeries, Thailand has one of the best reputations in the medical tourism market. This is also due to the confidentiality that Thailand offers and the fact that medical treatments can be combined with holidays. The relatively low level of safety in Thailand does not seem to deter tourists as 1.4 million are still attracted each year from the US (33%), China (29%), Japan (18%), UK (14%) and Middle East and Australia (6%). Future projections for Thailand are that revenues will increase from USD 2 billion (€ 1.3 billion) to USD 3 billion (€ 2 billion).

Turkey

Turkey attracts 165,000 medical tourists a year, mostly from Europe and Asia, who are attracted by the natural thermals and spas as well as the 35 JCI accredited medical facilities that Turkey has to offer. Cost savings of 58% and 40% when compared to the US and the UK respectively also help. Specialisations in Turkey cover the fields of cardiology, orthopaedics, assisted reproduction, cosmetic and plastic surgeries and oncology. Through thorough promotion of Turkey as a medical tourism destination, it is hoped that 36% of its total tourism revenue will be from medical tourism by the end of 2010 despite the fact that the private health sector is relatively small and the public sector is weak.

4. Outbound Countries

The Netherlands

The most popular destinations for Dutch medical tourists are Belgium, Germany and Turkey, although exact percentages are not known. The reasons why these people opt for treatment in these countries are cost savings, a possibility to combine a treatment with a holiday, reduced waiting times, proximity of the countries and language skills (mainly applicable in the Flemish-speaking part of Belgium). Despite all Dutch citizens being covered by one compulsory level of basic insurance, the aforementioned reasons cause them to still seek treatments abroad. Due to its growth, the national medical tourism market has an increased number of medical tourism facilitators, as well as specialists performing treatments in countries such as Germany in order to profit from the outbound patient flows. Although Dutch patients spent € 80 million abroad annually, this still only makes up a small percentage of the global market for outbound medical tourism.

Russia

Russian medical tourists traditionally travel to Israel and Germany, accounting for 45% and 20% of patients respectively. Currently, other destinations, such as Turkey, Singapore, Switzerland, France and Eastern European countries are experiencing an increase in popularity. The treatments most sought after by Russians include cardio surgery, organ transplantation, eye surgery, oncology and other chronic diseases that require advanced medical equipment and specialised after care. The most important reasons why Russian patients opt for treatment abroad are higher quality, availability of treatments and language skills, as Russians often do not speak foreign languages. In

general, they do not seek cost savings since only the wealthy citizens can afford to go abroad. As the quality of health care outside of Russia is regarded as higher, it is prestigious for patients to undergo treatments abroad. Overall, the country represents a smaller outbound stream as only around 1% of the population is currently opting for medical tourism but has large potential to become a major player in the outbound medical tourism market.

United Kingdom

The most popular destination for British medical tourists is India due to the Commonwealth. For fertility treatments, the Czech Republic is a popular choice and for combining treatment with a holiday stay, Turkey is frequently selected. The most common reasons why British people go abroad for treatment are reduced waiting times, higher quality, cost savings and availability of treatments. The long waiting times and the infection rates in hospitals are the largest problems facing the UK population. Therefore, many British patients are looking to travel for treatments. This makes the British population the second largest outbound medical tourism flow. The significance of medical tourism has been reflected in the introduction of the medical tourism insurance from PJ Hayman, and the increase in international cooperation between UK based companies and foreign medical facilities.

United States of America

American medical tourists travel to Latin America (38%), Thailand (44%) and other countries, such as India, in smaller proportions (18%). The main reasons for American citizens opting for treatment in a foreign country are cost savings, higher quality, availability of treatments and reduced waiting times. Cost saving is the most important reason as, out of the 370 million US residents, 14% are uninsured and 7% are underinsured. In addition, the mother tongue of around 34 million inhabitants is Spanish. These reasons combined lead to many Americans seeking treatments in Latin America, accounting for 500,000-750,000 medical travellers annually. Americans are now the largest outbound flow with the number of medical tourists being expected to double annually. As a result of this growing market, insurance plans covering medical tourism have been introduced and the US based 'Medical Tourism Association' was established.

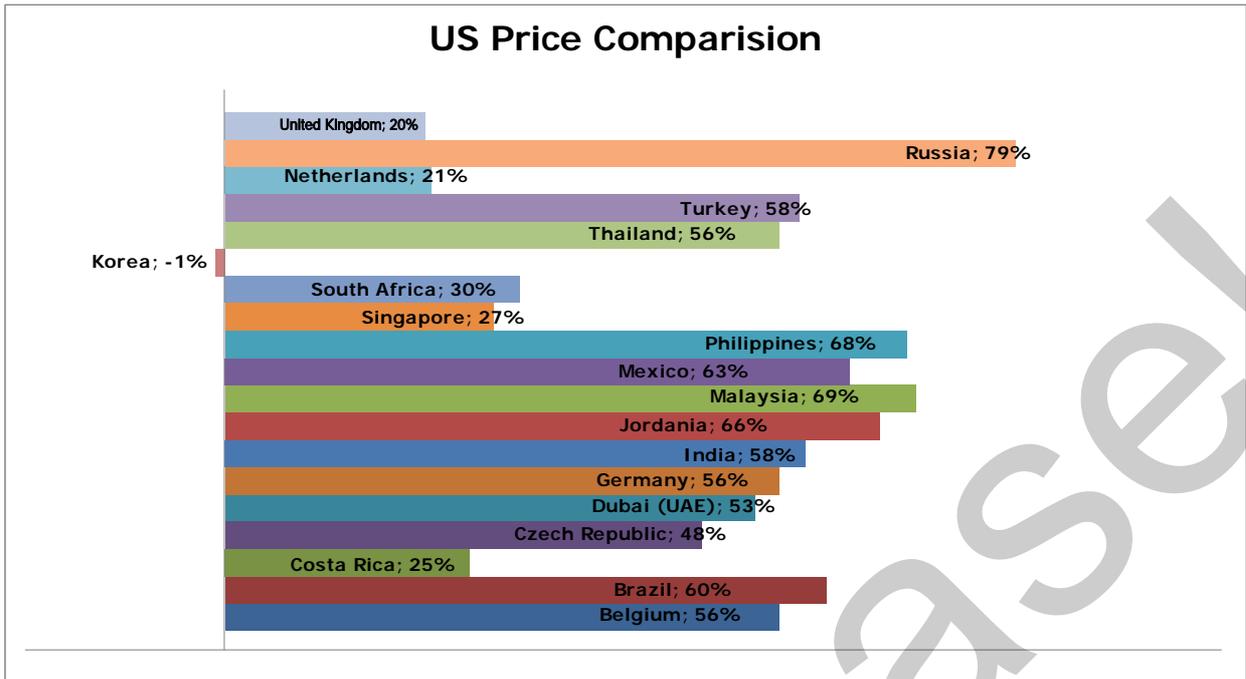
5. General Conclusion

5.1 Price Benchmarking and Main Flows Analysis

The research has been concluded in a medical tourism flows analysis as well as a price benchmark of the selected medical treatments, where all inbound countries have been compared sequentially to each outbound country. The results below visually express the cumulative average price difference for all treatments per country by means of bar charts. The percentages indicates how much cheaper/more expensive the average medical treatment is compared to the country indicated.

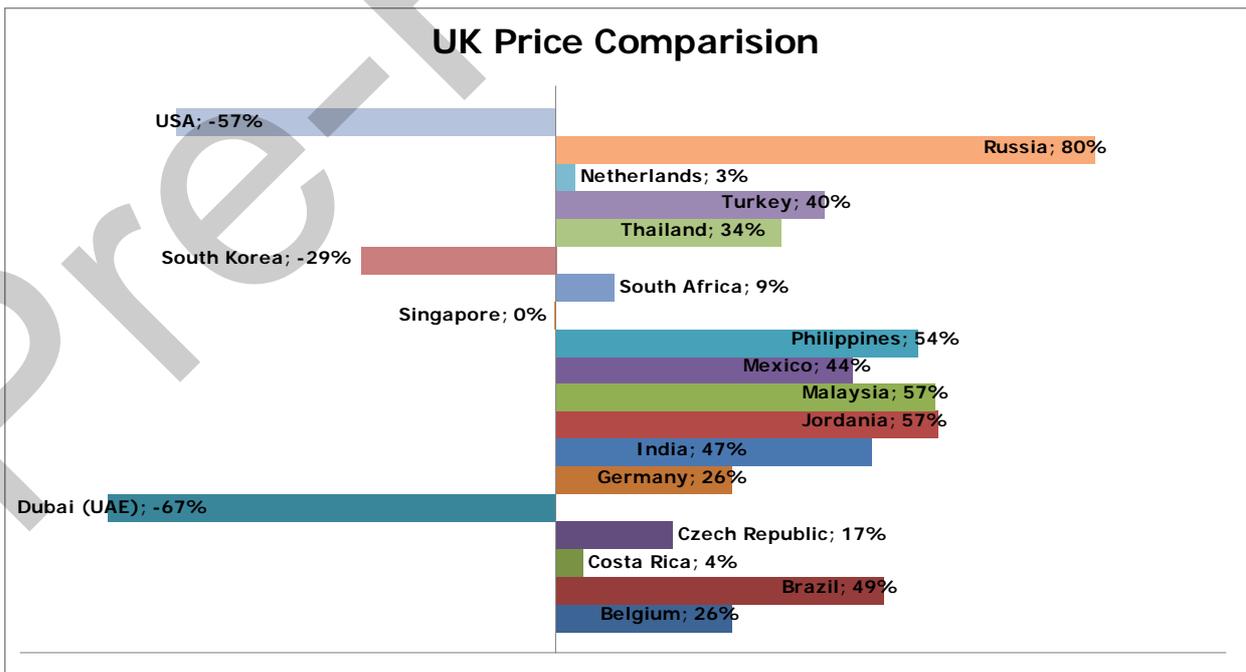
The United States

The cheapest countries for US medical tourists are Malaysia, Philippines and Jordan who offer 69%, 66% and 63% cost savings respectively. Nevertheless, Americans do not normally frequent Malaysia for medical tourism and there is still less than 1% of US citizens going for treatments to Jordan despite its promotional efforts. They do, on the other hand, make up 40% of medical tourists in the Philippines, together with Canada. However, major cost savings offered by Mexico seem to be a driving factor for US medical tourists as they account for 95% of the inbound medical tourists. Other countries that Americans opt for are Brazil (95%) and Costa Rica (95%) with 60% and 25% of cost savings correspondingly. Even though Costa Rica's price difference is considerably low, its success is probably due to its proximity to the US.



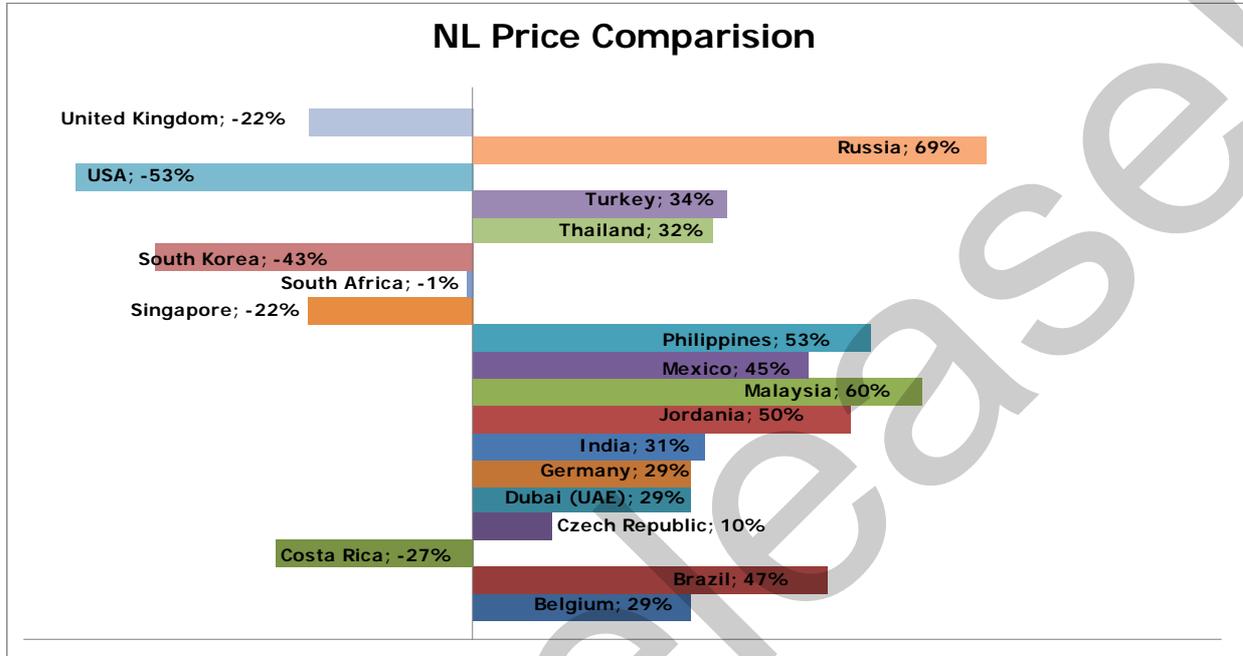
The United Kingdom

British medical tourists most frequently opt for India (offering 44% cost savings), Turkey (40%), Belgium (26%) and Czech Republic (17%). Each of these countries has a unique selling point that caters for the varying demands of UK citizens, such as shorter waiting times, availability of treatments and quality. In particular, Belgium's competitive advantage for the British medical tourists is its specialisation in cosmetic and dental treatments at a lower cost as well as its proximity, especially thanks to the Eurostar and Thalys trains. In the future, countries that offer significant cost savings, such as Jordan, Malaysia and Philippines (57%, 57% and 54% respectively) could serve as potential markets for the UK. At the moment, however, they barely attract any British medical tourists.



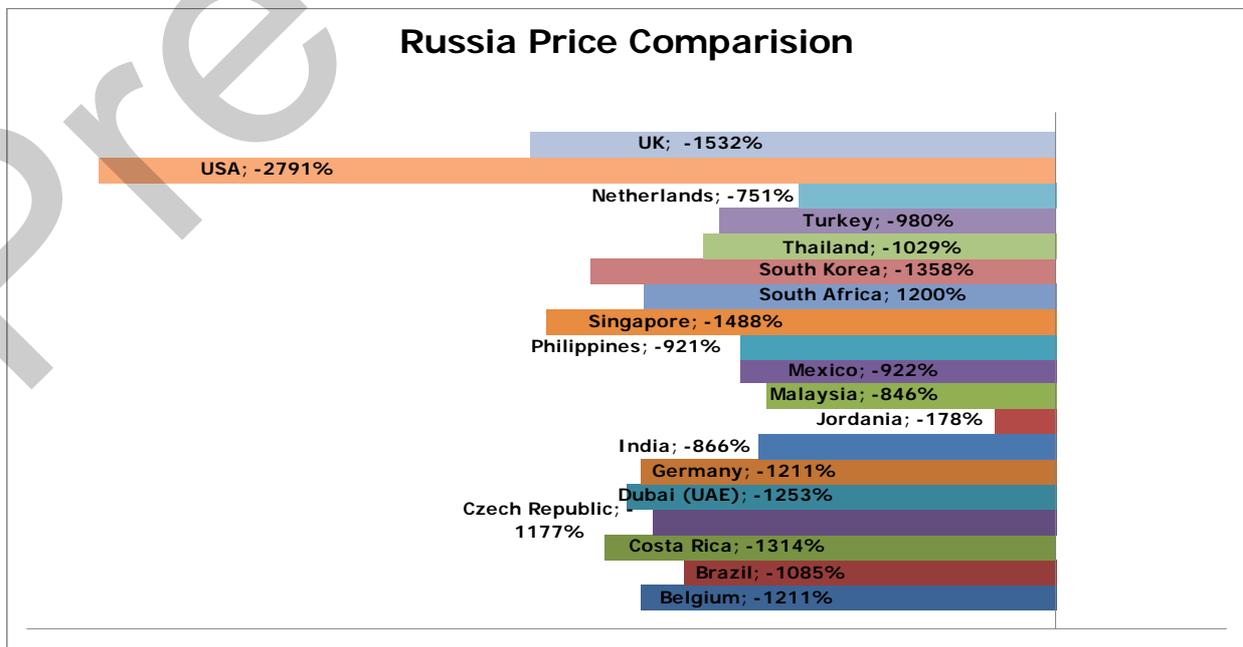
The Netherlands

The most attractive medical tourism destinations for Dutch citizens are European, mostly neighbouring countries, such as Germany and Belgium, but also Turkey due to cost savings of 29%, 29% and 34%, respectively. Another researched European medical tourism hub, the Czech Republic, offers savings of only 10%. The largest cost saving non-European medical destinations for the Dutch could be Malaysia (60% cost savings), the Philippines (53%), Jordan (50%) and Brazil (47%).



Russia

Even though only 1% of Russians seek medical treatments abroad and, thus, do not contribute much to the total global outbound medical tourists, they are considered to be a potential market due to a high spending power. The Russian medical tourists usually opt for destinations, such as Germany and Israel, thanks to many Russian-speaking immigrants in these countries. However, Germany is thirteen times (1,211%) more expensive when compared to Russia. Generally, Russia has the cheapest medical care out of all the countries studied and the least expensive destination for Russians could be Jordan despite prices being almost triple (178%).



5.2 Map Conclusions

Conclusions from the main flows analysis have been converted into a digital map which visually represents the most important inbound and outbound medical tourism flows within the scope of the research. It details the most important reasons why medical tourists opt for certain destinations as well as the unique selling points of each selected inbound country and their areas of specialisation.

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5.3 General Conclusion

Based on the conducted research, it becomes clear that the industry of medical tourism is a developing market with vast potential. However, various issues of prejudices and uncertainty on the consumers' part alongside unclear restrictions and laws as well as growing ethical concerns have a negative impact on the industry and perception of the medical tourism market. At the moment, besides Thailand and India, there are relatively few well-established destinations that have already seen the potential of this industry. Nevertheless, more and more countries such as Malaysia are augmenting their promotional efforts and there is an increasing number of newcomers to the industry, especially among European countries, who profit from attracting neighbouring populations. The growing demand for medical treatments for which people travel has resulted in a development of various medical tourism products and the emergence of facilitators.

Potential outbound markets are also being identified with countries such as Russia and the Middle East offering the medical tourism industry new target groups to attract. In general, the demand for medical tourism among outbound countries will be maintained as long as major problems with the national health care provision exist.

In conclusion, the prospects of medical tourism are positive and it has been forecast that the industry will grow by 66% to reach revenues of USD 100 billion (€ 67 billion) in 2010.

5.4 Outlook for Further Development and Research

Due to time restrictions of this project, several areas related to medical tourism have not been considered. One of the suggested topics of further research would be

- the transferability of hospitality rating systems to hospitals since there is a lack of one uniform international accreditation system that is used by every medical facility and trusted by medical tourists.
- At the level of medical facilities, it is interesting to produce a benchmarking of waiting times instead of prices as this is an important reason to seek treatment abroad.
- At the legal level, the effect of the European Commission's proposed Directive for Cross-Border Health Care and the influences this may have on the operations within the industry at a medical tourism facilitator level as well as the governmental implications of this directive.
- At a patient level, the intangible aspects (such as personal experiences) of medical tourism should be studied although this is potentially a difficult area due to patient confidentiality. Referral panels are a trustworthy source to share experiences.
- The internet is the most important source of information. Development and efficiency of search machines such as www.hospitalscout.com is of key importance

As this market is expected to grow exponentially, it is predicted that many new areas and topics will be revealed that will also be of interest and importance.