Dynamics of medical tourism in India

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Abstract
At present, Asia constitutes the most important medical tourism region. Medical tourism is a growing sector in India. India is becoming the 2nd medical tourism destination after Thailand. Chennai is still regarded as “India's Health City” as it attracts 45% of health tourists visiting India and 40% of domestic health tourists. India has a potential to attract 1 million health tourists per annum which will contribute US$ 5 billion to the economy. India’s medical tourism sector was expected to experience an annual growth rate of 30% from 2012, making it a $2 billion industry by 2015. India is increasingly becoming popular with people from middle-east, Africa and SARC countries seeking medical treatment overseas, because of it highly qualified doctors and state-of-the-art equipment, and the treatments which are approved by the World Health Organization (WHO).

Keywords: Medical tourism, India, Cost, Demarcated areas.

Defining Medical Tourism
Medical tourism, also called health tourism, surgical tourism, or medical travel, international travel for the purpose of receiving medical care. Many patients engage in medical tourism because the procedures they seek can be performed in other countries at relatively low cost and without the delay and inconvenience of being placed on a waiting list. In addition, some patients travel to specific destinations to undergo procedures that are not available in their home country.

Growth in the popularity of medical tourism has captured the attention of policy-makers, researchers and the media.

Examples of such procedures include stem cell transplants and gender-reassignment operations. There is as such no agreed definition. Some countries count foreign patients’ visits to hospitals whereas others count the entry of individual patients into the country.

Origin of Medical Tourism
Medical tourism as concept is thousands of years old. Greek pilgrims travelled from Mediterranean to the small territory like Saronic Gulf called Epidauriai (Greece) in ancient times, as this territory was sanctuary of the healing god Asklepios. Greece later became the travel destination for Medical Tourism. During the Roman period British patients took the water at the time of bath, and these practices prevailed for long. In the beginning of 18th century, Europeans travelled to spas from Germany to the Nile. In early stage of nineteenth century people from Europe visited neighbouring countries in order to improve their health as there were no restrictions on travel. Because of the availability of professional and often specialized medical care patients started travelling to tourist destinations like the Swiss lakes, the Alps for tuberculosis sanatoriums. The new era ushered the development of sophisticated surgeries, newer techniques for dental implants and radiotherapy for treating cancers.

Developing industry
In 2003, five countries specialising in medical tourism - India, Jordan, Malaysia, Singapore and Thailand - attracted over 1.3 million foreign visitors for medical treatments and made over 1 billion US dollars in treatment costs alone. Global medical tourism is pegged at USD 59 billion in the year 2016 or about 2-3 percent of global tourism, and growing at the rate of about 20-30 percent per year. In India, Medical tourism is about USD 3.9 billion (about 0.2% of India’s GDP) in 2016 with a market share in global medical tourism of 5 percent. Medical tourism employment in India is estimated to be about 167000. The growth of medical tourism in India is accelerating and expected to reach USD 8 billion by 2020, these figures may change due to recent Covid era.

Drivers of Medical Tourism
Primarily the success of this industry can be attributed to the following five-“A” factors. They are affordability, accessibility, availability, acceptability and additional factors.

Affordability – The healthcare comes at a higher price for millions of uninsured patients, and thus seeking for a better and cheaper options which has become extensive. The costs of healthcare are tending towards becoming a Despite a number of countries offering relatively low-cost treatments, we currently know very little about many of the key features of medical tourism. Indeed, there are no authoritative data on
the number and flow of medical tourists between nations and continents. While there is a general consensus that the medical tourism industry has burgeoned over the past decade and that there is scope for even further expansion, there remains disagreement as to the current size of the industry.

**Availability**—One more reason for patients to travel so far for a medical treatment is the unavailability of a required medical procedure at country. This type of travel is called “need factor travel”, where a person goes in search of his needs for better health care.

**Accessibility**—Anything available is worth, only when it is accessible to the needy. The high demand for the procedures at developed countries makes a patient be on a wait list for 6-12 months on an average. Inaccessibility of a need often demands for a better option, with quality and economy meeting the criteria. The medical tourism destinations are providing the quality in a cheaper option, making them more accessible.

**Acceptability**—Travelling abroad is a sensitive issue, if there are religious, social-political and ethical issues surround it. This happens to be a problem to majority of the medical travellers, as defining the correct set of values is difficult.

**Additional factors**—It’s quite natural that everybody seeking medical treatment abroad expects the best quality of service. The most important factor of all is receiving additional benefits like better care, latest medicines, modern technology, better hospitality, personalized care. The pie below depicts segments for medical tourism.

### Demarcated areas for Medical Tourism:

It is apparent that the range of treatments available overseas for prospective medical tourists are wide, including:

1. Cosmetic surgery (breast, face, liposuction)
2. Dentistry (cosmetic specially implant procedures and reconstruction)
3. Cardiology/cardiac surgery (by-pass, valve replacement)
4. Orthopaedic surgery (hip replacement, resurfacing, knee replacement, joint surgery)
5. Bariatric surgery (gastric by-pass, gastric banding)
6. Fertility/reproductive system (IVF, gender reassignment)
7. Organ, cell and tissue transplantation (organ transplantation; stem cell)
8. Eye surgery

Collectively, not all of these treatments would be classed as acute and life-threatening and some are clearly more marginal to mainstream health care. Some forms of plastic surgery would be excluded from health spending (e.g. for solely cosmetic reasons); other forms of medical tourism (e.g. IVF) would be counted within the remit of health trade (OECD, 2010) [6A, 6B] Medical patrons across India look forward to high-end medical facilities with value-added or coordinated services.

Procedures undergone segment wise: This is depicted in chart below [6C]

**Due Rise of Medical Tourism in India:** The major etiological factors are:

1. **Expert Hospital Staff:** India has a number of hospitals, large pool of doctors (approx 7, 00,000), nurses & supporting staff with required specialization and expertise and the language advantage (English speaking skills) servicing patients. Many of these doctors after having specialized and practiced in the Western countries have returned home to set up impressive state of the art facilities with the latest in equipment, technology and service levels in all major metros.

2. **Technology:** The most popular treatments sought in India by medical tourists are alternative medicine, bone-marrow transplant, cardiac bypass surgery, eye surgery and orthopaedic surgery. India is known in particular for heart surgery, hip resurfacing and other areas of advanced medicine. All medical examination and treatment are conducted using the latest technologically advanced and cutting edge diagnostic equipment. Stringent quality assurance exercises consistently ensure reliable and high quality test results in a timely manner.

3. **Quality:** Already 21 Indian hospitals have been accredited by the Joint Commission International (JCI) which is the International arm of the Joint Commission Accreditation for Hospital Organisations (JCAHO). Accreditation and compliance with quality expectations are important since they provide tourists with confidence that the services are meeting international standards. Almost all Indian Hospitals servicing Medical Tourists are accredited either by Joint Commission International (JCI) which is the world central body for accreditation for hospitals headquartered in USA and its accreditation is considered a gold standard for health care. National Board for Accreditation of Hospitals and Health Care is governing body for JCI and follow International safety
standards. India remains a safe and preferred medical tourism destination.

4. **No waiting Period:** Patients in USA, Britain, Canada and some other developed countries have to wait for the major surgery and sometime this waiting period is more than few months. In this respect India have almost zero waiting time for surgeries. This has resulted in attracting number of foreign patients from Britain, USA, Canada to India for their medical treatment.

5. **Language:** Even though India has many different languages, English is widely spoken. All hospitals have excellent large pool of good English speaking doctors, nurses and other hospital staff and even guides. This makes it easier for foreigners to communicate well to Indian doctors if English is not their native language; they are also arranging translators in most major international languages to be with patients during their Indian tour.

6. **Information availability through internet:** Internet has made available all information related to hospitals available and treatment offered all over the world and people can select their destination based on the information and facilities offered. Chennai has been called India health capital because of its best quality hospitals and doctors and Chennai gets about 45% of the total foreign medical tourists coming to India for treatment. This has benefitted the hotels and resorts in Chennai. Many hospitals have tied-up with hotels and resorts in mahabalipuram for post treatment stay and follow-up consultation. Maharashtra is thriving in tourism Industry and now the FICCI and the Medical tourism council of Maharashtra has taken a joint initiative to promote medical tourism. Its an initiative by the Government of Maharashtra and many actions have been taken to provide the best medical facilities.

Segment of patients coming to India for Medical Tourism:

SWOT analysis of Medical Tourism in India

**Strengths:** Affordable cost, Qualified Medical Personnel, Super speciality hospitals, International reputation of both hospitals and doctors.

**Weakness:** Lack of uniform pricing policies across hospitals, perception of unhygienic conditions, sluggish visa clearance and duration of stay within country, Low Coordination between the various players in the industry— airline operators, hotels and hospitals. Post treatment follow-up is a major problem according to Doctors, followed by the lesser developed infrastructure.

**Opportunities:** Increased demand for healthcare services from countries with aging population (U.S, U.K), Shortage of supply in National Health Systems in countries like U.K, Canada, Demand for retirement homes for elderly people especially Japanese.

**Threat:** Strong competition from countries like Thailand, Malaysia, Singapore, Under-investment in health infrastructure.

**Due Pricing at Lower brand width:** India is considered to be providing very reasonable pricing for all medical treatment and procedures.

Comparing the Cost of following treatments between India and others:

<table>
<thead>
<tr>
<th>Procedure</th>
<th>US</th>
<th>India</th>
<th>Thailand</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart bypass</td>
<td>1,30,000</td>
<td>10,000</td>
<td>11,000</td>
<td>18,500</td>
</tr>
<tr>
<td>Heart valve replacement</td>
<td>1,66,000</td>
<td>9,000</td>
<td>16,000</td>
<td>12,500</td>
</tr>
<tr>
<td>Angioplasty</td>
<td>57,000</td>
<td>11,000</td>
<td>13,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Hip replacement</td>
<td>43,000</td>
<td>9,000</td>
<td>12,000</td>
<td>12,000</td>
</tr>
<tr>
<td>Hysterectomy</td>
<td>20,000</td>
<td>3,000</td>
<td>4,000</td>
<td>6,000</td>
</tr>
<tr>
<td>Knee replacement</td>
<td>40,000</td>
<td>8,500</td>
<td>10,000</td>
<td>13,000</td>
</tr>
<tr>
<td>Spinal fusion</td>
<td>62,000</td>
<td>5,500</td>
<td>7,000</td>
<td>9,000</td>
</tr>
</tbody>
</table>

International figures based on hospital quotes in named countries

**Dentistry and Tourism**

It has also been observed that there is an increasing demand for cosmetic dentistry like whitening, chipped teeth, tooth reshaping etc. which hints that the awareness level of individuals is increasing being people are more conscious about the appearance. Considering it as an opportunity, several foreign companies start investing in the Indian dental market by establishing their production units. Subsequently, India is becoming a manufacturing hub by supplying dental equipment and material to less developed countries.
reported that only a very few percentage of Americans are equipped with dental insurance. A report to Congress in 2012 called it Dental Crisis in America”; being 130 million Americans live without dental insurance. This forces them to visit India where the cost of the treatment is almost one third of that in the United States.¹¹

Models for Medical Tourism
There are two mode model of medical tourism within India Mode 1: Direct medical tourism. Consumers who use this mode are familiar with a foreign hospital and make their own arrangements for travel and medical treatment. This is the simplest and earliest mode of medical tourism. Mode 2: Medical tourism arranged by medical tourism facilitators (MTFs). This mode represents consumers who use the services of agencies that specialize in locating suitable foreign hospitals and arranging treatment, transportation, and lodging during recuperation.¹²

Websites for Medical Tourism in India

Dedicated states for Medical Tourism in India
Tamil Nadu is leading state in providing medical care at par with the finest hospitals in the West. There are plush corporate hospitals in the state especially in Chennai, the capital city. The State Government is also aggressively promoting Health Tourism. State is enjoying leadership in India in healthcare especially in Eye Care, Oncology, Orthopaedics, Dialysis and Kidney Transplant.

Kerala has pioneered health and medical tourism in India. They have made a concrete effort to promote health tourism in a big way, which has resulted in a substantial increase of visitor arrivals into the state. Kerala and Ayurveda have virtually become synonymous with each other. However, Kerala has strongly focussed on Ayurveda and its wide array of treatments and medications, good facilities are also available in the other traditional forms of medicine as well as in modern medical treatment. In the last two decades, there has been a growing demand for Ayurvedic treatment and medicines in India as well as outside India. Ayurveda medicine in Kerala registered 10-12 per cent growth yearly and contributed around three percent value addition annually to the manufacturing sector.

Maharashtra has a strong thriving tourism industry, and is now set to have a new kind of tourism - Medical Tourism. The FICCI (Federation of Indian Chambers of Commerce & Industry) Medical Tourism Council of Maharashtra have a collaboration to promote, the tourism industry and private as well as public health tourism providers.

The other perfect destination is Delhi. Centres in Delhi provide affordable medical care. Hospitals in Delhi provide treatment for a vast range of illnesses and surgery including Joint Replacement (Knee/Hip), Cardiac Surgery, Renal and Liver Transplant, Bone-marrow Transplant, Dental Surgery, and Cosmetic Surgeries.¹⁴

Superspeciality Hospitals for Medical Tourism
The list of top hospitals include: Apollo Hospital Chennai and Apollo hospital chains, Manipal Hospital Bangalore Christian Medical College Vellore. Fortis hospitals chain, Lilavati Hospital, PD Hinduja hospital and Research Center, Mumbai, Mallya Hospital Bangalore, AIIMS Delhi, Sterling Hospital and Kokilaben Ambani Hospital Mumbai, Aster Medcity, Amrita Hospital, Kochi, Altec Hospital, KD Hospital Amritsar, Choithram Hospital and Research Centre, Indore to name few.¹⁵ The National Accreditation Board for Hospitals and Healthcare Providers (NABH) has been set up under the national accreditation structure to establish and operate an accreditation programme for healthcare organisations.

Most medical tourism hospitals offer the following facilities
1. Conventional Radiology
2. C-arm scanning
3. CT Scanning
4. Hyperbaric (decompression chamber), Audiogram
5. Interventional Radiology
6. Laboratory
7. Level 4 Trauma Response
8. Lithotripsy (treating kidney stones without surgery)
9. MRI
10. Pharmacy
11. Recovery units adjacent to the operating site

Medical Tourism and Covid 19
Medical Tourism industry was one of the first few businesses to get impacted and possibly would take longest to revive. Uplifting travel ban worldwide, conclusive treatment modality, or a possible Covid-19 Vaccine; is what it would take for this industry to attain its heydays which doesn’t seem likely in good part of 2020. Sooner or later this industry will bounce back to normalcy.

Covid-19 might follow a pattern similar to previous epidemics world has witnessed in terms of spread, containment and eradication. Once there comes a solution to the problem, there will be an influx of patients awaiting treatment for chronic disorders and lifestyle diseases which have piled up.¹⁶
Conclusions
With globalisation, medical tourism is becoming a new and emerging international business that is gradually increasing in importance. Along with this development comes many entrepreneurial opportunities to capitalise on the growth of this industry. Much of the travel and services in the tourism infrastructure supports this industry and so promotes the growth. The cost-effective and quality healthcare India has to offer to its patients, there is great potential for attracting patients from other countries. With the cost of medical treatment in the developed western world remaining high, the Indian medical tourism sector has an edge because of cost-effective medical care. Studies have shown that healthcare in India saves about 65-80 per cent money compared to similar service in the United States. India’s system of traditional medicine are a combination of Ayurveda, Siddha Yoga and meditation, it aims at curing ills and helping the patient to lead a healthy, balanced lifestyle. There are a number of health farms and nature spas in India that attract a number of foreigners looking for help in bringing about lifestyle changes and detoxification of the body. The Ministry of Tourism has recognized the scope of medical tourism and has initiated MDA (Market Development Assistance).17

Scheme to key players in the medical tourism space and road shows are organized at regular intervals to promote India as a medical tourism destination. “Make in India” initiative gives enough opportunities for Medical tourism in terms of identified sectors viz. Tourism & Hospitality and Wellness.

Source of Funding
None.

Conflict of Interest
None.

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