

TRENDS IN MEDICAL TRAVEL - 2007 REPORT

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I. INTRODUCTION

The phenomenon of receiving healthcare abroad (a “healthcare trip”) has grown over the last several years. Citizens all over the world, especially those from developed countries with relatively high costs of medical care, are increasingly looking beyond their countries of residence for healthcare treatment. Likewise, “medical tourism,” a related phenomenon, is also on the rise. Medical tourists are citizens who travel outside their countries of residence to receive healthcare and also engage in tourist activities while they are abroad.

The fact that more citizens are choosing to receive healthcare abroad shows that healthcare is becoming increasingly “globalized.” Just as how in the business world, “work” (whether manufacturing, customer service, or software development) is now sent to the places where it can be done most efficiently and cheaply; citizens are now choosing to receive healthcare in places where they feel that they can receive the best treatment at a low cost. As this trend grows, it is important to understand the profiles and preferences of these patients who are looking abroad for treatment so that medical travel professionals can accordingly plan their business operations and conduct their business safely and patients can understand what other patients are doing and make more informed choices.

Using data from www.healthcaretrip.org, this research report attempts to answer the following questions: Where do patients, who are interested in medical travel, live? Where would they like to go to receive treatment? What medical/dental procedures are they interested in having done abroad? In addition, the research report offers possible explanations for the data and suggests areas for further analysis.

II. METHODS

As of December 22, 2007 using the Healthcare Tourism International search engine (www.healthcaretrip.org), 1,698 unique searches were received. Volunteers could search by location, procedure, religious affiliation, language spoken, healthcare specialty, and accreditation. Only subsets of these total searches were used for purposes of this research. Data was collected on volunteer search preferences with regards to location and specialty using the search engine. All data was stored using databases driven by industry standard computer programming languages: PHP for Web programming and MySQL for databases. To control for multiple searches for the same location from the same individual, IP addresses were used to minimize the discrepancy. For example, one person searching for Uganda several times from the same computer would register as only one search for Uganda. Majority of the volunteers were attracted to the website through press releases, Web-based search engines, word-of-mouth publicity, and website links.

III. RESULTS

Overall, countries within Asia were the most commonly searched locations for volunteering [Tables 1]. Of the total number of searches by location, 39% were for countries within Asia. This was followed by other parts of Europe (23%), North America (20%), South America (10%), Africa (4.5%), and Oceania (3.2%). Within Asia, India was the most commonly searched country with 14% of total searches by location. In Europe, Hungary was the most commonly search country (3%). In North America, Mexico was the most commonly searched country (4%). In South America, Brazil was the most commonly searched county (3%). In Africa, Egypt was the most commonly searched country (1%). In Oceania, Australia was the most commonly searched country (1%).

Of the individuals searching by procedure, the most commonly searched procedures were Dental Bridge (23%), Dental Bonding (12%), and Breast Augmentation (4%) [Table 2]. Dental procedures were the most commonly searched procedure (40.7%) followed by cosmetic procedures (22.6%). Other procedures searched including a wide range of procedures, such as Coronary Artery Bypass Graft (4%), Colonoscopy (2%), LASIK (2%), and In Vitro Fertilization (1%).

Table 1: Search results by location using Healthcare Tourism International

Country	Number	Percentage	Country	Number	Percentage
North America	152	(20.2)	South America	78	10.4
Mexico	30	(4.0)	Brazil	19	2.5
Cuba	25	(3.3)	Argentina	16	2.1
Costa Rica	20	(2.7)	Colombia	12	1.6
United States	12	(1.6)	Ecuador	9	1.2
Panama	10	(1.3)	Uruguay	8	1.1
Dominican Republic	8	(1.1)	Peru	5	0.7
Nicaragua	8	(1.1)	Chile	4	0.5
Trinidad and Tobago	1	(0.1)	Bolivia	2	(0.3)
Africa	34	(4.5)	Asia	294	(39.1)
Egypt	8	(1.1)	India	103	(13.7)
South Africa	5	(0.7)	Thailand	37	(4.9)
Algeria	3	(0.4)	Philippines	31	(4.1)
Nigeria	3	(0.4)	Singapore	16	(2.1)
Tunisia	3	(0.4)	Turkey	15	(2.0)
Zambia	2	(0.3)	Indonesia	12	(1.6)
Angola	1	(0.1)	Malaysia	11	(1.5)
Zimbabwe	1	(0.1)	Yemen	1	(0.1)

Europe	170	(22.6)	Oceania	24	(3.2)
Hungary	21	(2.8)	Australia	7	(0.9)
Belgium	11	(1.5)	Borneo	4	(0.5)
Germany	11	(1.5)	Fiji	3	(0.4)
Sweden	10	(1.3)	New Zealand	3	(0.4)
Bulgaria	8	(1.1)	American Samoa	2	(0.3)
Romania	8	(1.1)	Kiribati	2	(0.3)
France	7	(0.9)	Brunei	1	(0.1)
Yugoslavia	1	(0.1)	Tahiti	1	(0.1)

Table 2: Search Results by Procedure Searched Using Healthcare Tourism International

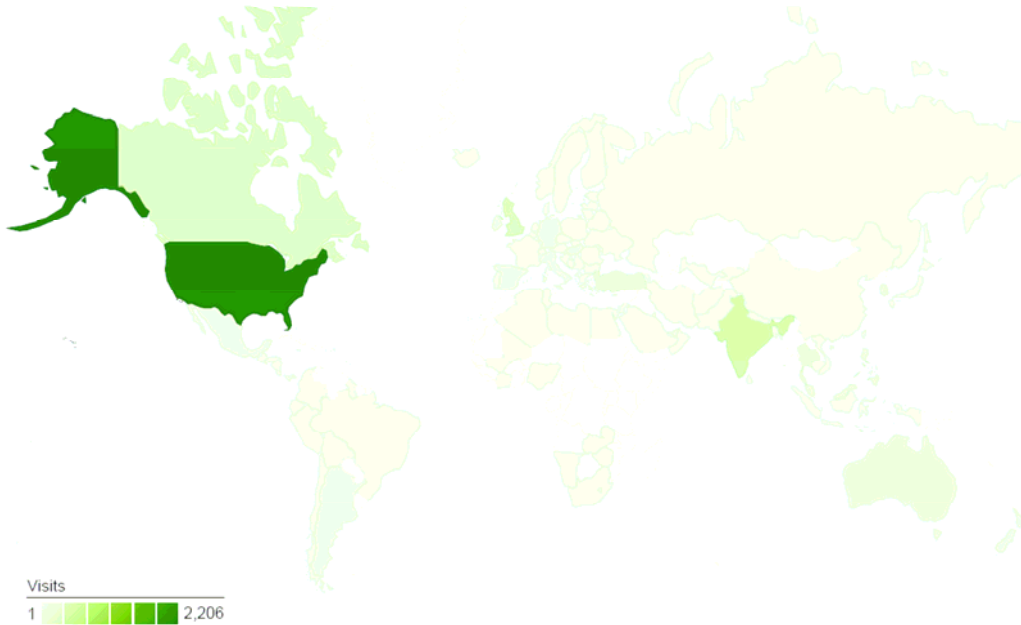
Type	Number	Percentage
Dental Bridge	121	22.6
Dental Bonding	62	11.6
Breast Augmentation (Augmentation Mammoplasty)	20	3.7
Coronary Artery Bypass Graft (CABG)	19	3.6
Facelift (Rhytidectomy or Rhytidoplasty)	17	3.2
Root Canal (Apicetomy)	15	2.8
Breast Lift (Mastopexy)	14	2.6
Tummy tuck (Abdominoplasty)	14	2.6
Colonoscopy	13	2.4
Arthroscopy	12	2.2
Knee Replacement (Knee Joint Replacement)	12	2.2
LASIK	12	2.2
Composite and Porcelain Dental Veneers (Tooth Veneers)	11	2.1
Angiography	10	1.9

Breast Reduction (Reduction Mammoplasty)	9	1.7
Wisdom Teeth Extraction (3rd molar extraction)	9	1.7
Cataract removal (extraction or surgery)	8	1.5
Hernia Repair (Herniorrhaphy)	8	1.5
Prostatectomy	8	1.5
Hair Transplant	7	1.3
In Vitro Fertilization (IVF)	7	1.3
Liposuction (Lipoplasty)	6	1.1
Nose Surgery (Rhinoplasty)	6	1.1
Ankle Fusion Operation (Arthrodesis)	6	1.1
Aortic Aneurysm Surgery (Aortic Aneurysm Surgery)	6	1.1
Cardiac catheterization	6	1.1
Gastric Bypass (Bariatric Surgery)	6	1.1
Hip Joint Replacement	6	1.1
Hip Resurfacing (Birmingham Hip Resurfacing)	6	1.1
Transplant - Bone Marrow	6	1.1
Ear Surgery (Otoplasty)	5	0.9
Eyelids Surgery (Blepharoplasty)	5	0.9
Coronary Artery Stent	5	0.9
Uterus Removal (Hysterectomy)	5	0.9
Facial Implants (Chin, Cheek, Jaw and Orthognathic Surgery)	4	0.7
Coronary Angioplasty	4	0.7
Gallbladder Removal (Cholecystectomy)	4	0.7
Chin Surgery (Mentoplasty)	3	0.6
Upper Arm Lift (Brachioplasty)	3	0.6
Breast biopsy	3	0.6

Cystoscopy	3	0.6
Hemorrhoid Removal (Hemorrhoidectomy)	3	0.6
I U I (Intra-Uterine Insemination)	3	0.6
Neck Lift (Platysmaplasty)	2	0.4
Skin Refinishing (Dermabrasion)	2	0.4
Breast Lumpectomy	2	0.4
Breast Mastectomy	2	0.4
Intra-Cytoplasmic Sperm Injection (ICSI)	2	0.4
Knee Arthroscopy	2	0.4
Shoulder Rotator Cuff Repair	2	0.4
Forehead Lift (Brow Lift)	1	0.2
Male Breast Reduction (Gynecomastia)	1	0.2
Spider Veins (Sclerotherapy)	1	0.2
Thigh Lift	1	0.2
Biopsy - Small bowel biopsy	1	0.2
Carotid Endarterectomy	1	0.2
Large bowel resection (Colectomy)	1	0.2
Shoulder Scope (Shoulder Arthroscopy)	1	0.2
Tonsils and Adenoid Removal (Tonsillectomy and Adenoidectomy)	1	0.2

Analysis: The Most Searched for Medical Procedures

Medical Procedure	Searches	Percentage
Dental Procedures	219	40.9%
Plastic Surgery	103	19.3%
Other	213	39.8%



4,971 visits came from 118 countries/territories

Site Usage				
Visits 4,971 % of Site Total: 100.00%	Pages/Visit 5.36 Site Avg: 5.36 (0.00%)	Avg. Time on Site 00:04:34 Site Avg: 00:04:34 (0.00%)	% New Visits 70.71% Site Avg: 70.59% (0.17%)	Bounce Rate 40.11% Site Avg: 40.11% (0.00%)
Country/Territory	Visits	Visits	Visits	
United States	2,206	44.38%		
India	431	8.67%		
United Kingdom	319	6.42%		
Canada	302	6.08%		
Turkey	120	2.41%		
Thailand	103	2.07%		
Singapore	99	1.99%		
Malaysia	79	1.59%		
South Korea	78	1.57%		
Australia	72	1.45%		

IV. DISCUSSION

We will analyze the results of this study along three dimensions: Where did patients conduct their searches from? Which places across the globe do they want to receive treatment in? Which medical/dental procedures were patients interested in receiving?

The largest number of visitors came from the US (44.5%), followed by India (8.7%), the UK (6.4%), and Canada (6.1%). That the largest percentage of visitors came from the US is not surprising because US residents appear to be the largest clients of health travel. Thus, when US residents search for health travel organizations to facilitate their healthcare trips, the website www.healthcaretrip.org often appears in their searches. While US residents are the largest consumers of medical travel services, India is currently the largest provider of such services. Visits to the www.healthcaretrip.org website from Indian medical providers and medical travel facilitators to register their organizations or to see which of their competitors have registered could be the reason why India was second in this list. Finally, numerous searches were conducted from the UK and Canada most likely for the same reasons as the US. With high incomes relative to the rest of the world, citizens of these countries, such as citizens of the US, are increasingly looking abroad to receive healthcare treatment. The remaining visits came from countries spread across the world. As medical travel becomes more common and as the website www.healthcaretrip.org becomes popular, we expect the gap to close between the number of visitors to the HealthCare Trip website from the US and the number of visitors to the website from other countries.

The most searched for continents were Asia (39.1%), Europe (22.6%), and North America (20.2%) [Table 1]. Not only was Asia the most popular continent for searches, but also the place where the three most searched for countries were located. India emerged as the most popular (13.7%),

followed by Thailand (4.9%) and the Philippines (4.1%). Asia is widely considered the foremost provider of medical services at reasonable costs and these results support this conclusion. India is likely the most popular destination because of its large population of English-speaking healthcare professionals and internationally recognized medical training programs. Thailand and the Philippines also have a reputation for providing high-quality medical services. Indeed, nurses from these two countries (and India) can be found in hospitals and clinics around the world. Europe and the US came second in this list with almost the same number of searches in each region. Of all countries, Mexico and Cuba came fourth and fifth with 4.0% and 3.3% of all searches, respectively. Because the US is the largest consumer of medical travel, US citizens will naturally look to receive medical treatment from countries close to them. Because Mexico shares a border with the US and Cuba is a short plane flight away from Florida, these countries are obvious places for receiving medical treatment at low cost. Hungary, with 2.8% of all searches, emerged as the top destination for medical travel in Europe. Europe is generally considered to have high-quality medical services but at higher costs than all continents except the US. However, as a country on the border of Western and Eastern Europe that is in the midst of economic development, medical costs in Hungary are lower than in many other European countries, while the quality of their services is considered high. For European patients who are interested in medical travel, Hungary (as Mexico is to the US) is an attractive option because of its proximity. In addition, given its location at the cusp of Western and Eastern Europe, many languages are spoken in Hungary, which makes it a practical destination for medical services for citizens of both Western and Eastern Europe.

Finally, the most searched for health procedures were dental procedures (40.9%), plastic surgery procedures (19.3%), and other medical procedures (39.8%) [Table 2]. Dental procedures include dental bridges, dental bonding, root canals, composite and porcelain dental veneers, tonsil and adenoid removals, and wisdom teeth extractions. Plastic surgery procedures include breast augmentations, face lifts, breast lifts, tummy tucks, breast reductions, hair transplants, nose surgeries, upper arm lifts, neck

lifts, skin refurbishing, forehead lifts, male breast reductions, and thigh lifts. Other medical procedures include all procedures not included in the first two categories. The most popular specific procedures with search percentages greater than 10% were dental bridges (22.6%) and dental bonding (11.6%). The results of this exercise need to take into account two factors: the prevalence of such types of procedures in general and the effect that medical travel has on the procedures searched for. The medical travel phenomenon left aside, dental procedures are very common in the society as the mouth is one of the most commonly used organs requiring an average of one to two visits to the dentist per year for people for whom dental visits are a practical option. Moreover, plastic surgery is becoming increasingly popular in the society due to advances in plastic surgery technology, lower costs, and the desire to conform to social images. In terms of medical travel, most dental procedures are “out-patient” procedures that do not require the patient to be admitted to a hospital. Thus, not having to stay in a hospital reduces the complexity and burden of the medical travel experience for the patient. Unlike procedures such as coronary artery bypass grafts, plastic surgery procedures are largely elective. In the first case, time is usually of the essence and patients must get the life-saving procedures done quickly. Patients will always prefer to have these procedures done in a trusted hospital in their home countries unless they cannot simply afford it. But in the case of plastic surgeries, which are usually not time-sensitive, patients can plan a trip to a foreign country to receive treatment and possibly add tourism to the trip itinerary. However, as the medical travel industry matures, we expect patients to view international options for receiving life-saving procedures as viable choices because medical travel facilitators and international hospitals will streamline their processes for handling international patients.

V. FURTHER ANALYSIS

While the results of this study indicate which treatment locations and procedures patients are interested in, they do not provide reasons for these preferences. Further analysis could be done to

understand the motivations of patients. In addition, as the debate continues on whether or not to combine medical travel with tourism, it may also be useful to understand the percentage of medical travelers who view tourism as a key component of their medical travel experience.

VI. CONCLUSION

Analyzing Web traffic data on the www.healthcaretrip.org website has yielded numerous insights about the development of the medical travel industry. By presenting and analyzing the locations from where patients are viewing this website, the locations where procedures are being searched, and the types of procedures searched, medical professionals and patients alike should be able to make more informed decisions regarding medical travel. However, medical travel is an evolving industry and it is difficult to predict with certainty how the trends will develop. The current results suggest that the US citizens are the largest consumers of medical travel, Asia (and in particular India) is the top destination for medical travel, and dental and plastic surgery procedures are the procedures that medical travelers are most interested in. However, as regulations and other industry dynamics (i.e., price, competition, etc.) change, so too will these conclusions.