United Nations
Economic
Commission for
Latin America and
the Caribbean

ECLAC WASHINGTON Office

LC/WAS/L.121

U.S. health care reform and medical tourism opportunities

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Washington, D.C., August 2012

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United Nations Publication

LC/WAS/L.121
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Printed in Santiago, Chile – United Nations

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I. Introduction

Health related expenditure in travel, also known as medical tourism, is a fast growing sector in many regions of the developing world. High costs of medical services, long waiting lists, and the ageing of an affluent baby-boom population in developed countries, together with the relative affordability of international travel and high quality health care services at affordable prices in destination countries, have prompted a growing number of patients to seek and receive medical, dental and/or cosmetic care in the developing world.

Like other offshore services, medical tourism can help create good quality jobs in destination countries, develop linkages between local firms and global services markets, attract foreign direct investment, and improve access to medical technology and practices and to medical centers outside the country. On the other hand, expansion of medical tourism poses significant challenges on various fronts including proper infrastructure and technology, availability of skilled health professionals, adequacy of regulatory frameworks, and of institutional capacities.

As medical outsourcing gains the attention of employers, insurers, entrepreneurs, and even state legislatures in the United States, several developing countries are analyzing the potential of medical tourism in diversifying exports, attracting investment and enhancing employment opportunities at all steps of the skills ladder.

The comprehensive health care reform passed by the United States Congress in March 2010[1], the *Affordable Care Act* (ACA), could have a significant effect on the potential of medical tourism in Latin America and the Caribbean. In fact, 64% of the respondents to a survey of medical tourism service providers believe that U.S. health care reform is likely to have a significant positive impact on the number of patients seeking medical travel abroad (Peters and Sauer, 2011).

This document looks at medical tourism trends in the United States and the potential of medical tourism opportunities as the ACA is implemented. There are two main channels through

[1] The health insurance reform legislation is contained in two laws: the Patient Protection and Affordable Care Act (PPACA), enacted on March 23, 2010, and amended shortly thereafter by the Health Care and Education Reconciliation Act (HCERA) of 2010, enacted on March 30. Together, they are commonly referred to as "the Affordable Care Act" or ACA. The legal status of ACA is uncertain as the Supreme Court has been asked to decide whether key aspects of the law are constitutional. One question before the Court, is whether the ACA mandate that people either have insurance, or pay a fine, violates the Constitution. The Supreme Court is expected to render its decision by the end of June 2012.

which health care reform can influence the size of the U.S. medical tourism market for the region. The first has to do with sustained efforts by different actors of the U.S. health care system to keep costs under control. The second relates to access to medical services; as a growing number of U.S. residents gain access to health insurance and the aging of the general population puts pressure on a relatively inelastic supply of services, as is the number of hospital beds and professionals trained in the medical profession.

The first part of this paper looks at the trends of U.S. trade in health services. The second analyses the potential effects of the U.S. health care reform on medical tourism and the last one provides the conclusions.

II. Medical travel trends

A. U.S. trade in health services

Data on trade in health services is scarce and imprecise, and estimates are wide and varied. One study places the current global market size at between 60,000 to 80,000 foreigners seeking medical treatment across an international border in 2008 (Ehrbeck et al., 2008). Another estimates that 750,000 U.S. citizens travelled abroad for medical care in 2007 and predicted that this would increase to 1.6 million by 2012 (Deloitte, 2008a & 2008b). Most figures are estimated from surveys of tourists, medical tourism service providers and others, with different standards and goals that render the information non-comparable. Unlike statistics on trade in goods that are collected through customs declarations each time a good crossed borders, data on trade in services is typically reported as balance-of-payments statistics, on the basis of proxies rather than direct reports (Mortensen, 2008). Moreover, unlike goods, services can be traded through different modes that require specialized data gathering efforts.

Like most services, health services are traded through four different modes. Under Mode 1, the service crosses the border while the supplier and consumer remain in different countries. This mode of trade has been facilitated by technology developments that have made possible the electronic transmission of medical records and laboratory exams (e.g. radiological) by electronic devices. Mode 2 involves the consumer crossing an international border to receive health care services, also known as medical tourism. Mode 3, commercial presence, is when the supplier crosses the border to the territory of consumption to provide the service (e.g. foreign affiliate of an international hospital). Under Mode 4, medical personnel move temporarily across the border to provide a health service. Several efforts have been made to measure trade in health services in all four modes.

The United Nations introduced a *Manual on Statistics of International Trade in Services* (MSITS) in 2002 to improve data collection and reporting for Modes 1-4. The new guidelines introduced a more detailed classification of trade in services in the balance of payments, the Extended Balance of Payments Services classification (EBOPS), includes a category of expenditures in health related travel (Mode 2) and another that collects data on trade in health services (Modes 1 and 4). It also includes the *Foreign Affiliate Trade in Services* (FATS) statistics to capture services supplied through direct investment by affiliates of multinational companies and includes a category called "health and social work", that provides a proxy for Mode 3 trade in health services. However, both EBOPS and FATS are still scarce in most countries and lack data reliability. For the period 2000-2010, a total of 72 countries reported data on "health-related expenditure in travel", and only 26 on trade in "health services". Of particular concern, those countries

considered to be the largest suppliers of international medical services such as India, Thailand and Mexico have not reported information.

However limited, what follows is an attempt to measure the size of the U.S. market for international health services based on the available information. Table 1 presents reported data for the year 2008 where the U.S. is an importer of health services. Among those who have reported information, Canada is the top country of origin when it comes to U.S. imports of health related travel, with spending of US$ 321.76 million. Next is the Czech Republic at nearly US$ 60 million, followed by France and the United Kingdom. However, these are a very small fraction of total U.S. imports of services from each of those countries, with the exception of the Czech Republic; the share of health services in total imports of services is less than one percent.

Medical tourism ("health related expenditure in travel") represented 0.64% of the 15 reporting countries' total exports of services to the U.S. in 2008 (see table 1). Since the U.S. imported services for a value of US$ 371.20 billion in 2008, using the 15 reporters as a proxy for total U.S. imports of medical tourism, it is estimated that the U.S. imported medical tourism for about US$ 2.38 billion (0.64% of US$ 371.20 billion). By the same token, in 2008 the total U.S. imports of health services, under Modes 1 and 4 is estimated at US$ 557 million, as the trade in "health services", in 2008, represented, on average, 0.15% of the 8 reporting countries' total exports of services to the U.S. In this context, therefore, U.S. imports of health services under mode 1, 2, and 4 are estimated at US$ 2.93 billion.

However, most trade in services is done through Mode 3, commercial presence, which is not included in these figures. According to FATS data, in 2008 U.S. services imports through commercial presence were US$ 701.59 billion (see table 2), while cross-border imports were US$ 371.20 billion (see table 1) or 53% of imports through commercial presence.

TABLE 1: U.S. TRADE IN HEALTH RELATED SERVICES, 2008
(millions of US$)

	Total services *(imports)*	Health related travel *(imports)*	Share *(%)*	Health Services *(imports)*	Share *(%)*
Austria	1 487.32	7.37	0.50		
Canada	49 615.38	321.76	0.65		
Cyprus	314.65	2.28	0.73	1.97	0.63
Czech Republic	1 008.24	59.08	5.86	0.35	0.03
Estonia	119.69	0.09	0.07		
France	13 882.17	23.56	0.17	14.73	0.11
Germany	34 040.56	1.47	0.00		
Greece	4 696.45	3.20	0.07		
Hungary	2 209.93			1.91	0.09
Italy	10 837.27	3.78	0.03	1.18	0.01
Poland	1 922.46			1.68	0.09
Romania	463.29	0.40	0.09		
Slovenia	154.31	0.01	0.01	0.40	0.26
Sweden	7 131.88	3.98	0.06	0.46	0.01
United Kingdom	33 519.40	12.95	0.04		
Average			**0.64**		**0.15**
Total trade in services (billions of US$).					371.20
Estimated U.S. health related travel expenses (billions of US$) (0.64% of US$ 371.2).					2.38
U.S. health services expenses (billions of US$) (0.15% of US$ 371.2).					0.56
Estimated U.S. imports of health services under commercial presence[1].					1.47
Estimated U.S. imports of health services (billions of US$).					4.39

Source: United Nations ServiceTrade and Bureau of Economic Analysis, U.S. International Services statistics.
[1] FATS assumed to make-up 50% of total trade in health services.

Assuming that Mode 3 trade in health-related services follows the general pattern of trade in services, it makes-up around 50% of total trade in health-related services, or about US$ 1.47 billion. A rough estimate of total U.S. imports of trade in health-related services, based on available international trade statistics, is estimated at US$ 4.39 billion, only 0.41% of total U.S. imports of services (see table 1).

TABLE 2: SERVICES SUPPLIED BY MULTINATIONAL COMPANIES THROUGH THEIR MAJORITY-OWNED U.S. AFFILIATES BY COUNTRY OF ULTIMATE BENEFICIAL OWNER
(millions of US$)

	Imports		Exports	
	2008	2009	2008	2009
All countries	701 589	668 811	1 116 932	1 076 439
Canada	68 860	69 958	110 947	101 424
Europe	427 789	422 063	634 342	581 319
Latin America and Other Western Hemisphere	48 945	34 052	110 175	118 642
South and Central America	6 655	5 681	81 493	83 357
Other Western Hemisphere	42 290	28 372	28 682	35 284
Africa	495	413	11 037	11 047
Middle East	11 981	10 362	11 239	14 093
Asia and Pacific	132 396	122 791	239 192	249 914
United States[1]	11 125	9 172	34 011	34 351

Source: Bureau of Economic Analysis, U.S. International Services statistics.
[1] Contains data for U.S. affiliates that have a foreign parent but whose UBO is a U.S. person.

The small fraction of health service trade contrasts with the economic importance of the health sector in the U.S. gross domestic product (17.5%). However, increasing health care costs, premiums and deductibles, are making medical outsourcing an attractive alternative, and it is likely that trade in health services will increase over the years.

B. The U.S. health care System

Health insurance coverage in the United States is fragmented, with multiple and overlapping, private and public sources and almost limitless variations in coverage. As of 2010, almost 50 million residents (16% of the population) were uninsured, an additional 29 million were underinsured (covered by some form of basic coverage, but with high out-of-pocket expenses in relation to their income) (Thomson et al., 2011). Of those with insurance coverage, some 76% received primary coverage from private insurers, of those, nearly 86% where insured through their employer, with approximately 15% directly purchasing from insurers (self-insured). The other 37% of the population is covered under public programs (Medicare, Medicaid and/or Military). (See note under table 3)

TABLE 3: HEALTH INSURANCE COVERAGE, 2010
(thousands)

Year	Population	Not Covered	Total Covered	Private health insurance			Government health insurance			
				Total	Employment based	Direct purchase	Total	Medicaid	Medicare	Military
2010	306 110	49 904	256 206	195 874	169 264	30 147	95 003	48 580	44 327	12 849

Source: U.S. Census Bureau, Income, Poverty and Health Insurance Coverage in the United States: 2010.
Note: Totals do not add up to 100% as individuals (particularly those over 65) may be covered by more than one government sponsored insurance scheme and/or be covered by both government and private health insurance.

Private insurance, provided by more than 1,200 not-for-profit and for-profit health insurance companies, is regulated by each state. Private health insurance can be purchased by individuals or it can be funded by voluntary tax-free premium contributions shared by employers and employees on an employer-specific basis, sometimes varying by type of employee. Therefore, insurers face two very different markets: the self-insured market comprised mainly of large employers, and the small group and individual market. In this second market, insurers bear the risk for the illnesses of people they insure and therefore pay special attention to the risk pool of their clientele. Private insurers in general pay rates to providers that are higher than the rates paid under public programs, particularly Medicaid, leading to wide variations in payment rates among payment sources and in revenues among providers, depending on their payer mix and market power.

Most large employers who offer employment-based health insurance to their employees are self-insured, that is they bear the financial risks of their employees' illnesses and the insurance company is simply a third party administrator. Employers are able to control the benefits plan, deciding for example: which medical services are covered, how much is paid for a service and to some degree the premiums charged to employees. Self-insured employers have, of course, a direct incentive to reduce health care costs by contracting with low-cost, high-value providers. Some of them have already started to negotiate contracts with providers abroad to lower costs, as well as with local providers, offering a larger pool of patients in return for a smaller reimbursement for services rendered.

The government provides health insurance through one of three pillars: Medicare, Medicaid and the Military. Medicare is a social insurance program for those 65 years and older, those under the age of 65 and disabled, persons with end-stage renal disease or those with Amyotrophic Lateral Sclerosis, also called Lou Gehrig's disease. Medicare is administered by the federal government and financed through a combination of payroll taxes, premiums paid by participants and federal general revenues. Medicare is not an exclusive service; those covered under private or Military insurance plans, and Medicaid, may also receive supplemental coverage through Medicare. Medicaid, a joint federal-state health insurance program, covering certain groups of the poor, is administered by each state, operating within broad federal guidelines. States receive matching funds from the federal government in varying amounts; in 2011, federal matching grants ranged from 50% to 73.2% of states' Medicaid expenditures.

Under each of these schemes, some health care costs are paid 'out-of-pocket' directly by private households through cost-sharing insurance arrangements.

U.S. health care delivery system

Physicians: The majority of ambulatory care physicians are in private practice, either as individual providers or as part of a group. The majority of primary care doctors operate in small practices with fewer than five full-time-equivalent physicians. Physicians are paid through a combination of methods: charges or discounted fees paid by most private health insurance plans, capitation rate contracts with some private plans[2] and administered fees paid by major public programs. Insured patients may be directly responsible for some portion of physician payment (co-payments), and uninsured patients are responsible for all or part of the physician charges, although those charges often are reduced or waived (with the extent of charity care varying substantially across providers).

After-hours care: Provisions for after-hours care vary widely, with much of it provided through hospital emergency rooms.

[2] Within a capitated contract, the healthcare provider is paid a set dollar amount per month to see patients regardless of the number of treatments provided or the number of times the physician or clinic sees the patient. The agreement is that the provider will get a flat, prearranged payment in advance per month. Whether or not the patient needs services for a particular month, the provider will still get paid the same fee.

Hospitals: Hospitals can be for-profit, non-profit or public. They are paid through a combination of methods: per-service or per-diem charges, per-admission payments and capitation. Some hospital-based physicians are salaried hospital employees, but most are paid on some form of fee-for-service basis.

Long-term care: Long-term care is provided by a mix of for-profit/nonprofit providers, and paid for through a variety of methods that vary by provider type and payer. Medicaid covers many long-term care services. Medicare covers limited long-term care services. Hospice care is covered to different degrees under both programs.

Mental health care: Mental health care is provided by a mix of for-profit/non-profit providers, and paid for through a variety of methods that vary by provider type and payer. As part of the ACA, most employer-based insurance plans need to provide the same degree of coverage for mental health services as for medical care.

C. Traveling in search of health care value

Health care costs in the United States are among the highest within OECD countries. In 2009, the U.S. spent 17.4% of GDP on health as compared to 9.6% in OECD countries. The second largest spender was the Netherlands with 12%, followed closely by France (11.8%) and Germany (11.6%). This is also true on a per capita basis where the U.S. spent US$ 7,960 in 2009 as compared to US$ 3,233 for OECD countries, on average (OECD, 2011).

For the majority of the insured population, premiums are shared between the employer and employee, with workers facing additional costs when they use health care services. Between 2000 and 2010, the average premium for family coverage in an employer-provided health insurance plan increased by 114% and the employee's portion increased by 147% (Claxton et al., 2010). In addition to the general increase in premiums, the share of the total premium contributed by covered workers has been increasing over the last few years as have been deductibles and other forms of cost-sharing (Kaiser, 2011), making health insurance increasingly less affordable even for covered workers.

For the remaining third that buy their own insurance, there was a premium increase of 18% in just one year, from 2009 to 2010 (Garman et al., 2011).

Trade in health services or medical outsourcing hinges on the potential of finding medical services abroad that are of similar or higher quality than those found in the U.S. and at a lower cost. In the U.S., employers, insurers, self-insured individuals and even state legislatures have been looking at more cost-effective alternatives in the provision of health care services and have been paying close attention to the possibility of medical outsourcing, as shown in the following examples, in table 4.

TABLE 4: EXAMPLES OF U.S. HEALTH CARE OUTSOURCING

Category	Name	Services	Destination
Employer	*Blue Ridge Paper Products*	"Expensive procedures" including open-heart surgery and hip replacement	India
	Hannaford Bros. Co	Hip/Knee Replacement	Singapore
Insurers	*Blue Shield of California, Health Net*	Low-cost health insurance policies focused on California employers with a large Mexican immigrant workforce	Mexico
	United Group Programs	Self-funded health plans and fully-insured, mini-med plans	India and Thailand
	International Medical Insurance Group (Underwriter: AIG)	MedTour health insurance combining traditional travel insurance with medical complications insurance	Multiple
	Aos Assurance Company	Medical malpractice insurance to patients receiving medical treatment abroad	Multiple
	Wellpoint Inc.	Pilot program with medical tourism logistics company Healthbase Online Inc. for members of Wellpoint's Wisconsin affiliates	India
States	*West Virginia: HB 2841 (Died in Committee)* *Colorado: 07-1443 (Postponed Indefinitely)*	Incentives for covered employees to obtain medical care in foreign health facilities	n/a
Hospitals	*Cleveland Clinic*	Treatment at Sheikh Khalifa Medical City; Cleveland Clinic Abu Dhabi (under construction)	United Arab Emirates
	Adventist Health System	International network of hospitals and clinics	21 Countries, including Haiti, India and Nigeria
	Memorial Sloan-Kettering Cancer Center	International network of international affiliates	Nine countries, including India and the Philippines

Source: Elaborated by author.

Employers: Blue Ridge Paper Products of North Carolina offers incentives to employees to obtain major medical care overseas in order to reduce cost and improve quality. The company's plan offers up to $10,000 to employees who undergo expensive procedures such as open heart surgery or hip replacement at select hospitals in India (McCallum and Jacoby, 2007). An east coast grocery store chain has worked with Aetna to cover employees' knee and hip replacements in Singapore.

Insurers: Blue Shield and Health Net of California offer low-cost insurance policies that encourage members to seek care in Mexico. United Group Programs (UGP) offers medical outsourcing options to approximately 100,000 people, many of them employees of self-insured businesses who cannot afford conventional insurance. UGP reports that these medical outsourcing plans save employers more than 50% on major medical costs and slash employee out-of-pocket costs to zero (McCallum and Jacoby, 2007). Insurer AIG underwrites a product called MedTour which combines traditional travel insurance with insurance for medical complications. Aos Assurance Company sells medical malpractice insurance to patients receiving treatments in foreign countries. Wellpoint Inc., a licensee of the Blue Cross Blue Shield Association, is running a pilot project with a medical tourism logistics company (www.healthbase.com).

State legislatures: Legislatures in Colorado and West Virginia proposed incentives for state employees to travel abroad for medical procedures (Forgione et al., 2007).

Hospitals and other medical institutions: Many U.S. health care institutions are taking advantage of opportunities for partnerships abroad. The Cleveland Clinic manages and operates the Sheikh Khalifa Medical City, a network of health care facilities in Abu Dhabi, and is set to open the Cleveland Clinic Abu Dhabi in 2012 (Cleveland Clinic, 2009). California-based Adventist Health System operates a network of hospitals and clinics in more than 10 developing countries. Ben Secours has facilities in France, Ireland, Peru, the United States and the United Kingdom (Peters and Sauer, 2011).

Patients: A growing number of patients have been traveling abroad to seek medical treatment abroad, the vast majority of whom are either uninsured, insured with a limited benefit medical plan that reimburses only a small fraction of complex surgical procedures, or seeking treatment not covered under group health plans (i.e. cosmetic surgery or other elective surgery, mental health care, etc.). Offshore health care makes it financially possible for these patients to receive services that would be unaffordable in the United States.

Table 5 describes the potential medical outsourcing beneficiaries.

TABLE 5: MEDICAL OUTSOURCING BENEFICIARIES

The uninsured	• Persons whose COBRA[3] coverage may be unaffordable or may have expired
	• Employees and retirees of companies reneged on coverage
	• The unemployed
	• Those with pre-existing conditions
	• Contractors
	• Early retirees
	• Persons excluded or priced out of coverage as they age
The underinsured	• Exclusion of coverage on the basis of preventive or elective care
	• Those requiring services not typically covered (e.g. mental health services)
	• Those who pay steep premiums and out of pocket costs because they are high-risk
	• Those with chronic diseases and high maintenance bills
	• The elderly
Combination users	• Those who can bundle several services or procedures in one visit
Convenience users	• Those living in, near or visiting premier medical outsourcing provider countries
Elective users	• Persons seeking to proactively avoid health care problems and costs through timely maintenance efforts or accessing non-essential health care services

Source: McCallum and Jacoby, 2007.

The most common medical procedures for which U.S. medical tourism service providers coordinate travel are hip surgery, knee surgery and heart surgery. These are followed by general surgery, laparoscopic surgery, obesity surgery, dental surgery and treatment, infertility treatment, cosmetic surgery, cancer treatment, neurosurgery, spinal fusion and eye surgery. Most of them performed in India, Costa Rica, Turkey, Brazil, Malaysia and Mexico (Peters and Saunders, 2011).

A key element in the decision on whether to seek medical treatment abroad is the ability to compare both quality and price of specific services in the U.S. and abroad to determine whether the value of the service, that is the price-quality bundle, is higher abroad.

Quality comparisons

Concern over the quality of health care in international medical facilities has prompted the development of several indicators.

The Centers for Medicare and Medicaid Services (CMS) created the *HospitalCompare* website (www.hospitalcompare.hhs.gov), that reports quality measures for hospital processes such as measures of

[3] The Consolidated Omnibus Budget Reconciliation Act (COBRA) gives workers and their families who lose their health benefits, the right to choose to continue group health benefits provided by their group health plan for limited periods of time under certain circumstances such as voluntary or involuntary job loss, reduction in the hours worked, transition between jobs, death, divorce and other life events. Qualified individuals may be required to pay the entire premium for coverage up to 102% of the cost to the plan. COBRA generally requires that group health plans sponsored by employers with 20 or more employees in the prior year offer employees and their families the opportunity for a temporary extension of health coverage (called continuation coverage) in certain instances where coverage under the plan would otherwise end.

heart attacks, heart failures, surgical care, pneumonia and pediatric asthma care, and 'outcome of care' measures such as 30-day readmission rates and in-hospital mortality rate by hospital.

Health Grades also offers indicators of quality of health care providers based on patient's reviews, technical information on physicians training and other professional activities and additional general cost information. There is also a *News and World Report Best Hospitals* website.

There are also some successful cases of promotion of the sector through brand prizes given by health organizations. For example, the Medical Tourism Association provides an annual Prize on Leadership in Health Care and Medical Tourism. The Medical Services and Odontology Cluster of Medellín, Colombia, was the award recipient in 2011.

Accreditation

Since 1999, the Joint Commission International (the global arm of the organization that accredits most U.S. hospitals), has accredited hospitals around the world. Joint Commission International Accreditation (JCIA) standards are developed with the input of experts from around the world. Hospitals are regularly inspected to assess performance and provide accreditation. In 2009, the JCI counted more than 400 organizations accredited in 39 countries.

TABLE 6: NUMBER OF JCI ACCREDITED ORGANIZATIONS IN LATIN AMERICA AND THE CARIBBEAN

Country	Number
Bahamas	1
Barbados	1
Bermuda	1
Brazil	36
Chile	2
Colombia	2
Costa Rica	3
Ecuador	1
Mexico	10
Nicaragua	1
Panama	2
TOTAL	**60**

Source: Joint Commission International.

JCI accredited hospitals have to renew their accreditation every three years and must collect and report data on services provided and quality indicators. Other organizations that provide information on certain standards regarding the quality of hospitals, health care, and medical ethics include the International Society for Quality in Health Care (ISQUA), the National Committee for Quality Assurance (NCQA), the European Society for Quality in Healthcare (ESQH), and the International Organization for Standardization (ISO). In addition, some countries are adopting their own accrediting standards. ISO certification to hospitals is provided by third-party assessments.

Accreditation is crucial because it gives medical tourists confidence in the quality of health care. This confidence increases if accreditation is accompanied by an affiliation with prestigious hospitals or health care systems in industrial countries (Mattoo and Rathindran, 2006). Some examples of these associations include the Harvard Medicine School, which partnered with the Dubai Healthcare City in launching the University Hospital, and the Johns Hopkins Hospital, which has ties with well-known hospitals in Canada, Chile, India, Ireland, Japan, Lebanon, Panama, Portugal, Singapore, Turkey, and the United Arab Emirates (Deloitte, 2008a). Brenzel (2004) notes that once

health care providers are accredited and part of international referral networks, they can be properly rated for risks, and consequently, health insurance can also become more portable.

Price comparison

Comparing prices for procedures is not as easy as one might think. Commonly, in the U.S. each part of a procedure is charged separately (e.g. hospital room and board, surgeon and anesthesiologist fees, laboratory exams, etc.). Providers from countries who are actively seeking international patients usually offer a 'one price' quote for the whole service, specifying what is included. When the cost of the procedure is available in the U.S., the cost of travel and the opportunity cost of the time of the patient and a companion should be added to make the comparison accurate.

Table 7 shows the cost of medical procedures more frequently sought abroad. As can be seen, most cost differentials are so significant that even once the cost of travel is added, it would still make financial sense to travel abroad for that particular treatment.

However, financial savings have to be substantial to motivate patients to travel extraordinary distances to receive treatment in a foreign country. The economic benefits associated with seeking treatment abroad may make it worth it for an employee enrolled in a medical plan with high deductibles and significant co-insurance payments. However, for those in group health plans in which consumer out-of-pocket expenditures are limited, travelling overseas might not be an attractive option unless the procedure is not covered by their plan or is elective.

TABLE 7: COMPARISON OF MEDICAL CARE COSTS ACROSS COUNTRIES, 2008
(thousands of US$)

	United States	Colombia	Costa Rica	India	Jordan	Korea	Mexico	Israel	Thailand	Vietnam	Malaysia	Nicaragua	Singapore	New Zealand	France	United Kingdom	Australia
Heart bypass	144.0	14.8	25.0	5.2	14.4	28.9	27.0	27.5	15.1		11.4		16.5	30.5		24.5	23.1
Angioplasty	57.0	4.5	13.0	3.3	5.0	15.2	12.5	8.0	3.8		5.4		13.0	8.5		14.9	
Heat valve replacement	170.0	18.0	30.0	5.5	14.4	43.5	18.0	29.7	21.2		10.6		12.5	30.5			
Hip replacement	50.0	6.5	12.5	7.0	8.0	14.1	13.0	25.3	7.9	8.3	7.5	8.7	9.2	15.0		14.0	16.5
Hip resurfacing	50.0	10.5	12.5	7.0	10.0	15.6	15.0	20.0	15.2		12.4						
Knee replacement	50.0	6.5	11.5	6.2	8.0	19.8	12.0	24.9	12.3	8.5	7.0	8.2	11.1	14.0		16.6	13.9
Spinal fusion	100.0		11.5	6.5	10.0	15.4	12.0	35.0	9.1	6.2	6.0		9.0				
Dental implant	2.8	1.8	0.9	1.0	1.0	4.2	1.8	2.2	3.6		0.4						
Gastric sleeve	28.7	7.2	10.5	5.0			10.0	11.5	13.6			8.0					
Gastric bypass	32.9	9.9	12.5	5.0			11.0	11.5	16.7		9.5	8.0					
Lap band	30.0	2.5	8.5	3.0	7.0		6.5	1.0	11.5			8.0					
Liposuction	9.0	3.5	3.9	2.8	4.0		2.8	7.2	2.3	2.9	2.3				3.7	5.3	
Tummy tuck	9.8	2.5	5.3	3.0	4.0		4.0	11.0	5.0	3.9							
Breast implants	10.0	2.5	3.8	3.5	3.5	12.5	3.5	21.0	2.7	3.9		4.4			5.0	7.6	5.1
Rhinoplasty	8.0	5.0	4.5	4.0	3.0	5.0	3.5	9.5	3.1	2.1	1.3	2.4					
Face lift	15.0		6.0	4.0	4.4	15.3	4.9	16.0	3.7	4.2	3.4				5.8	11.8	6.7
Hysterectomy	15.0	2.0	5.7	2.5	6.0	11.0	5.8	14.0	2.7		5.3	3.0					
Lasik (both eyes)	4.4		1.8	0.5	5.0	6.0	2.0		1.8	1.6	0.5						
IVF treatments	14.5		2.8	3.3	2.7	2.2	4.0	2.8	9.1		3.8						

Source: Author's compilation on the basis of Deloitte Access Economics, 2011 and Garman et al. 2011.

III. U.S. health care reform and medical tourism opportunities

The comprehensive health care reform enacted into law in 2010[4], the Affordable Care Act (ACA), could have a significant effect on the potential of medical tourism. If fully implemented, the challenges faced by insurance issuers and providers to meet the demands of an additional 30 million consumers could result in shortages in both health service personnel and hospitals, leading to higher medical costs, resulting in higher costs to employers and increased out of pocket costs to consumers. These two factors may represent an opportunity for providers that can offer high quality, accessible care, at lower costs both domestically and abroad.

This section of the paper briefly describes the changes bought on through the ACA and analyzes the potential impact on the economic incentives to pursue medical tourism for the different actors in the U.S. health care system. It will also estimate the potential effect on trade in health services due to shortages of physicians, medical personnel and/or hospital capacity.

A. Affordable Care Act

The reform requires every U.S. citizen and legal resident to obtain health insurance, except for those facing financial hardship, presenting religious objections, American Indians and Alaska Natives (already covered under the Indian Health Care Improvement Act) and those that are incarcerated. Individuals will have to "maintain minimal essential health insurance coverage" as established under the ACA. This means that beginning in 2014 there will be an estimated 30 million newly insured individuals.

Essential Benefits Package: The ACA requires that all qualified health care insurance plans offer at the minimum an essential health benefits package that: provides a comprehensive set of services (e.g. ambulatory patient services, emergency services, hospitalization, maternity and newborn care, mental

[4] The health insurance reform legislation is contained in two bills: the **Patient Protection and Affordable Care Act** (PPACA) which became law on March 23, 2010 and was shortly thereafter amended by the **Health Care and Education Reconciliation Act** (HCERA) of 2010, which became law on March 30. Together, they are commonly referred to as "the Affordable Care Act" or ACA.

health services, prescription drugs, laboratory services and preventive and wellness services, chronic disease management and pediatric services, including oral and vision care); covers at least 60% of the actuarial value of the covered benefits; limits annual out-of-pocket costs for participants to the current health savings account limit (US$ 5,950 for individuals and US$ 11,900 for families in 2010); and provides a scope of benefits equal to that of a typical employer plan. A process for reviewing increases in health plan premiums is established and requires plans to justify increases.

Health Insurance Exchanges (HIX): Under the new law, each state will be required to establish, or join another state in establishing, an American Health Benefits (AHB) Exchange and Small Business Health Options Program (SHOP) Exchanges, through which individuals can purchase coverage. Various plans would be available within each Exchange, each providing the essential benefits package and costs coverage of between 60 to 90% of the benefit cost. Individuals/families with low to middle income levels (between 133-400% of the FPL) will receive premium and cost-sharing credits through the Exchanges. States that opt out of creating an AHB will be covered under a federally established AHB, if they cannot prove that they already provide coverage equivalent to what would be available through a state AHB.

Medicaid: Medicaid will be expanded to cover all individuals and families (children, pregnant women, parents and adults without dependent children), regardless of age, with incomes up to 133% of the federal poverty level (FPL) based on their modified adjusted gross income (MAGI). All newly eligible adults will be guaranteed a benchmark benefit package that meets the essential health benefits available through an HIX.

Employers: Most businesses will have to provide health insurance coverage or pay a fine if they don't, with exemptions for companies with less than 50 employees. Firms employing less than 25 people and meeting certain income thresholds could be eligible for tax credits/subsidies if they purchase insurance. Employers with more than 200 employees are required to automatically enroll employees into health insurance plans offered by the employer, but employees may opt out of the employer-sponsored plan.

Lifetime and Annual Limits: The ACA also prohibits, phases out and/or restricts new individual and group health plans from placing lifetime and annual limits on the dollar value of most 'essential' benefits. The ACA also prohibits insurers from rescinding coverage except in cases of fraud.

Pre-Existing Conditions: The ACA prohibits health insurance policies entered into after September 2010 from excluding or limiting coverage or benefits for children under the age of 19 for "pre-existing conditions". Starting in 2014, these protections will be extended to persons of all ages.

Guaranteed issue and community rating: Beginning in 2014 (September 2010, for children under 19), all individual and group health care insurers must offer the same premiums to applicants of the same age, family composition and geographical location without regard to most pre-existing conditions (excluding tobacco use).

B. Medical tourism as an opportunity to keep health care costs under control

1. The insured and uninsured

Once the ACA is fully implemented it is estimated that 19 million non-elderly adults will remain uninsured (Buettgens and Hall, 2011). Since most of U.S. outbound travel for medical treatment relies on uninsured and underinsured individuals, this could in principle stall the observed tendency towards medical tourism. A more detailed analysis, however, shows that this is not necessarily the case.

Table 8 shows the composition of the 19 million non-elderly adults that will remain uninsured according to a study by the Urban Institute (Buettgens and Hall, 2011).

TABLE 8: NON-ELDERLY ADULTS UNINSURED AFTER ACA IS IMPLEMENTED

Number of People	Percentage of Total Uninsured	Characteristics	Potential market for Medical Tourism
19 million non-elderly adults uninsured	100.0		
6.7 million eligible for Medicaid (but not enrolled)	36.5	Mostly relatively young (32s year old) singles without dependents	Uncertain. Better outreach programs could make them enroll, but specialty care still not covered
4.5 million undocumented immigrants	24.5	Undocumented immigrants, more than half with emergency care covered by Medicaid	No
3.1 million exempt from individual mandate—no affordable insurance option	16.2	Older (51 years old) with relatively low incomes (US$ 31,000 family income)	Yes, but price differential needs to be significant as they do not have substantial disposable income
2.9 Eligible for affordable unsubsidized option	15.3	Relatively high incomes and in families w/dependents.(43 years old, median family income US$ 66,581)	Yes
1.4 Eligible for affordable subsidized coverage in the health benefit exchanges	7.5	Younger (33 years old) singles without dependents	Yes, if included in the health benefit exchange

Source: Elaborated by the author on the basis of Buettgens and Hall, 2011.

Out of those that will remain uninsured, 24.5% are undocumented immigrants and therefore not eligible for Medicaid, Medicare or any other of the health insurance subsidies offered under the new health system. They are also unable to take advantage of the cost savings offered by medical tourism since traveling abroad is not an option for this group of people.

Almost 37% of the non-elderly adult uninsured population, equivalent to 6.7 million people, will be eligible for Medicaid. Many of them could become aware of their eligibility and enroll in Medicaid. Even then, since Medicaid will only cover a subset of services, there will still be room for savings through medical tourism, in particular for specialty care (e.g. dental, mental illnesses and elective surgery) that is usually not covered under Medicaid. For those that remain uninsured, traveling abroad to receive medical treatment remains an attractive option.

ACA provides an affordability exemption to the individual mandate to those adults who face an individual premium of more than eight percent of family MAGI. Some people qualifying for a subsidy are not subject to the mandate because the subsidy would not be sufficient to reduce premium costs below the mandate's threshold. For the 3.1 million that will be exempt because there is no affordable insurance option for them, medical outsourcing could remain an affordable and attractive option. However, since they tend to be relatively older (51 years old on average) and of lower income, the price differential needs to be very significant for them to be willing to travel.

For the 2.9 million who are eligible for affordable unsubsidized healthcare, but decide to remain uninsured, medical outsourcing could still be a financially attractive option.

At the same time, 7.5% of the adult non-elderly uninsured population, or 1.4 million people, will be eligible for subsidized coverage through a health benefit Exchange. This is the case of legal residents not eligible for Medicaid, but who are eligible for subsidized coverage in the exchanges if their MAGI is under 400% of FPL, and they do not have an affordable employer-sponsored insurance (ESI) offer (defined as a single premium up to 9.5% of family income). In this case, medical tourism remains a profitable option, especially if they are offered through the Exchanges.

The most conservative estimate assumes that only the last two segments of the uninsured can constitute potential medical tourism markets. They represent about two percent of the non-elderly adult population in the U.S. or about 3.5 million people. In reality, at least a fraction of the 6.7 million that are eligible for Medicaid and the 3.1 million with an affordability exception will also be part of the medical tourism market.

Assuming full implementation of the ACA and the reduction of the uninsured people by 30 million, as estimated, the market for medical tourism could be reduced, but not by as much as may seem at first glance. At least 3.1 million people who are exempt from mandatory health insurance coverage might still find medical outsourcing for certain procedures their only affordable option. There will also be around 1.4 million people who will be eligible for subsidized coverage on the Health Insurance Exchange. If they remain uninsured, the incentives to travel abroad for treatment are unchanged. If they purchase insurance through the Exchanges, they can still find it less expensive to travel abroad and/or the insurance could provide incentives for them to outsource some of their medical treatment in an effort to maintain costs under control. For the 2.9 million who choose to be uninsured and are relatively healthier and younger the option to seek medical treatment abroad remains open and affordable.

2. Businesses

The impact of the ACA on employers will be different according to the size of the firm. Companies with less than than 50 employees will not be required to provide health insurance coverage. Once the Exchanges are established, companies with up to 100 employees will be able to buy into these programs. This expands to all-sized companies after 2017. For very small businesses, those with fewer than 25 employees and average annual wages of less than US$ 50,000, the ACA introduces tax credits for those who purchase health insurance for employees.

Small and medium sized employers, when offering health insurance to their employees, often contract with insurers who usually exercise the insurance function, bearing the financial risk of the pool of members. If medical tourism is going to be an option it is because insurers will find it financially attractive to incentivize medical outsourcing.

Medium size employers, those with 50 to 100 employees, will also have access to those additional health care insurance options, particularly those offered through the SHOP exchanges, but could face penalties if even one full-time employee decides to enroll in a federally subsidized option because of a lack of an affordable option through the work place.

Large firms provide health care benefits to their employees in the vast majority of cases but could also face penalties if full-time employees obtain health insurance through a HIX. Large employers, in general, are self-insured and therefore it is in their best interest to look for opportunities for cost reduction, including incentivizing their employees to seek medical treatment abroad.

3. Insurers/Exchanges

ACA provides access to health care to the uninsured partly through insurance regulation and, as a result, insurers will need to adapt quickly to the new rules to gain a significant competitive advantage. On the one hand, the reform implies a broad expansion of Medicaid and therefore offers significant opportunities for insurers, who are one of the "managers" of Medicaid. However, the reform also introduces constraints on government payments to insurers. Insurers will have to innovate in the way they manage Medicaid if they are to increase clientele and reduce costs.

For insurers, this could mean to eliminate unnecessary care; paying less for services from hospitals, doctors and nurses; or both. Medical tourism could play a role in reducing payments for certain kinds of services, although to fairly compare the prices of services abroad with those offered domestically, the financial incentive and the cost of travel for the patient and a companion should be included.

4. Hospitals

Beginning in 2014, when previously uninsured individuals gain access to health insurance and are more likely able to afford medical services, in part through their local hospitals, the demand for hospital services is expected to increase. Conversely, since hospitals currently provide, uncompensated, non-emergency health care services to uninsured patients, it is expected that much of these services will now be redirected to primary care physicians freeing up some hospital resources. In

addition, health care reform includes a change in the way hospitals are paid for treating Medicare patients that will also have significant effects.

In the case of greater demand, hospitals in the U.S. might not be able to increase the supply accordingly, at least not immediately. The supply of hospital beds in the U.S. is subject to a "Determination of Need" process in virtually every state that regulates construction of new hospitals. The process requires detailed, lengthy and costly approvals for the development of new hospitals, hospital beds and nursing homes. Therefore the capacity of the U.S. hospital system is not likely to respond to the influx of demand anticipated as a result of the ACA.

Hospital emergency rooms have been operating as de-facto primary care sites for many uninsured people who do not have access to preventive care or primary care and show up at the hospital when they become ill. If, as anticipated, the ACA reduces the number of non-urgent emergency room visits, and those who do have emergency situations are able to pay for the services received, the effects on hospitals will be positive: they will be providing mostly compensated care and, emergency rooms will tend to urgencies, making a more rational allocation of resources.

However, since undocumented immigrants are excluded from the individual mandate and would not be eligible for Medicaid or subsidies, they will remain uninsured and continue to utilize uncompensated services rendered by hospitals in the U.S.

ACA will stimulate demand for health care services beginning in 2014, resulting in increased revenue initially, followed by reduced payments beginning in 2016 and becoming more severe in 2019 through Medicare and Medicaid payment restrictions and Independent Payment Advisory Board reviews.[5] The significant increase in demand from 2014 will quickly create access issues, and may prompt consumers to seek alternatives, such as medical tourism. This may create targeted regional marketing opportunities for destinations and destination providers to offer high quality, accessible and affordable care in attractive settings.

C. Medical tourism to alleviate shortages in the supply of health services in the U.S.

Patients of countries where health care coverage is universal and services are provided free of charge, do travel to avoid the inconvenience of long wait times and other delays in treatment. In this section the analysis focuses on access issues that may result from increased use of services by the 30 million newly insured patients.[6]

The analysis takes the number of physicians as reported by the Association of American Medical Colleges (AAMC, 2010), projected up to the year 2020 and the U.S. Census population statistics projected up to year 2020, to build the indicator: number of physicians per 1000 people. Then, in order to show the possible impact of the ACA on utilization in the U.S. a factor of 28.5% was added to simulate possible increased demand on the health care system. The factor of 28.5% is the additional utilization rate observed in the United Kingdom with respect to the U.S.in 2009, based on acute care occupancy rate.[7] The utilization rate in Canada is 40% higher than in the U.S. so the benchmark of 28.5% could be considered a lower bound increase in demand for health services.

It is well documented that many Canadians travel for healthcare because of the extended wait times their residents face compared to U.S. residents. Canada has a total physician population of approximately 2.27 per thousand people which is about 7 percent below that of the U.S. (2.44). Thus, the analysis takes this benchmark difference in total physicians per 1000 people between Canada and

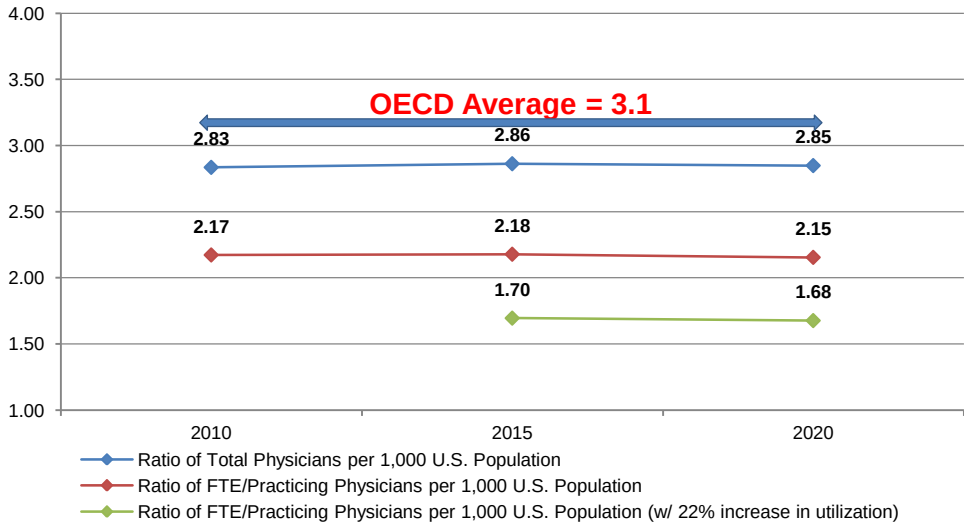
[5] The ACA established a 15 member Independent Payment Advisory Board (IPAB) tasked to submit legislative recommendations to reduce the growth of Medicare expenditures without affecting quality or coverage.

[6] The analysis in this section is based on the work that David Vequist performed as a consultant for ECLAC.

[7] Acute care occupancy rate is the number of patients in acute care by number of beds. (OECD, 2011)

the U.S. as a hypothetical sensitivity point at which medical tourism begins to become more prevalent, because of lack of access and increased wait times. So, any decrease of more than seven percent should signal the likelihood of more medical tourism. Figure 1 shows no likelihood for medical tourism over time because of the total number of physicians. The thick blue line shows the OECD average of 3.1 physicians per 1000 people. The thin blue line show the number of physicians per thousand people, the red line shows the full time equivalent of practicing physicians per thousand people and the green line includes an increase of 28.5% in the demand of health services due to ACA.

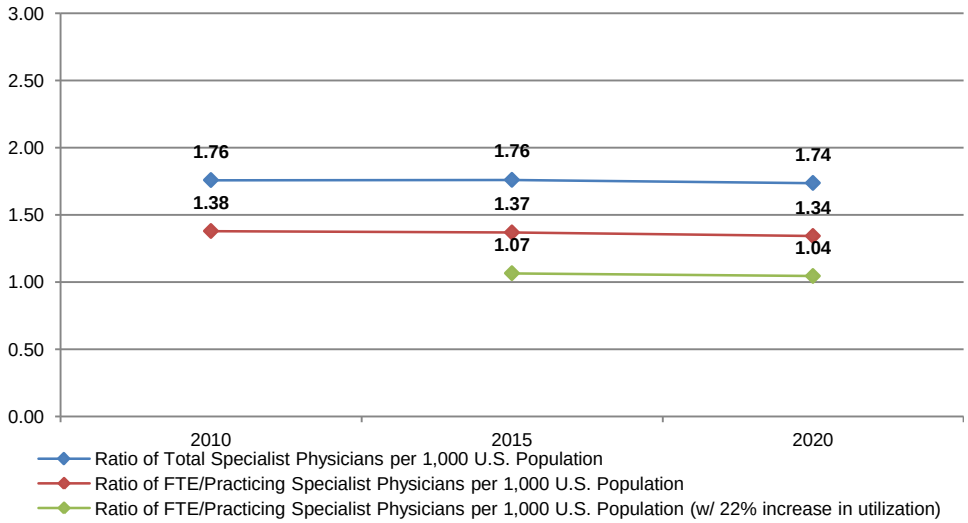
FIGURE 1: U.S. PHYSICIANS PER 1000 PEOPLE



Source: David Vequist et. al, 2012.

In figure 2, when the estimated ACA utilization increase of 28.5% is applied to the number of specialists physicians in the U.S. the shortage is a little larger than for the total number of physicians but the analysis shows no increases in medical tourism based on specialist physician ratios as forecasted.

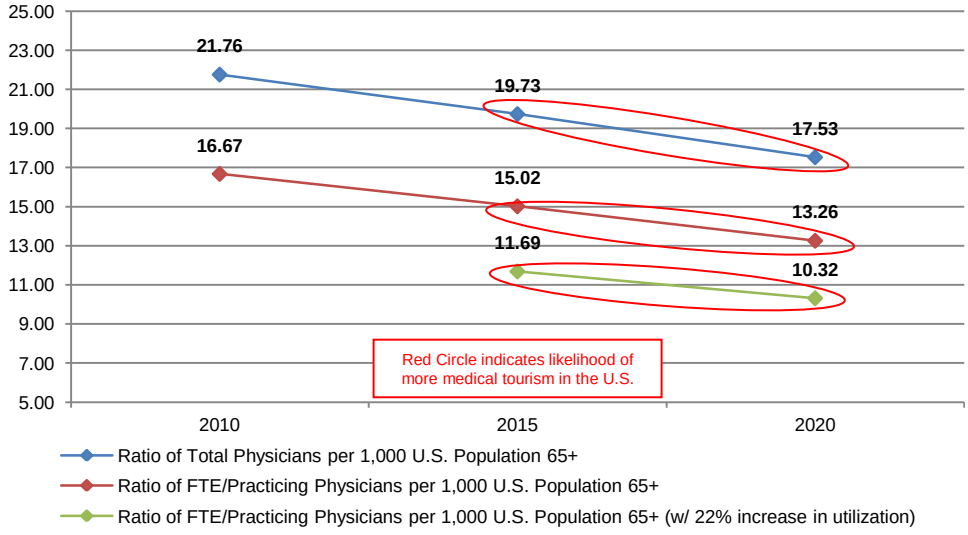
FIGURE 2: U.S. PHYSICIANS PER 1000 PEOPLE (SPECIALISTS)



Source: David Vequist et. al, 2012.

Although U.S. citizens and legal residents aged 65 and over will be covered by Medicare, and therefore less prone to travel for health care treatment, the literature indicates that continuing cuts to payments to doctors by Medicare and increasing numbers of Medicare recipients could lead to longer wait times. The population aged 65 and over is an increasing share of total U.S. population and tends to suffer from more health issues (e.g. obesity, cancer, heart disease) than the average U.S. resident. If wait times surpass the acceptable range, as is the case in Canada and the United Kingdom, the number of people considering medical tourism may increase. In Figure 3 the number of total physicians is compared to the number of people aged 65+ years old in the U.S. (per 1000 people). As the ratio of total physicians per population over 65 years old decreases it appears that there is the greater likelihood of increased medical tourism activity in the U.S. Also, when the estimated ACA utilization increase of 28.5% is applied to the physician ratios there is the greater likelihood of increased medical tourism activity in the U.S.

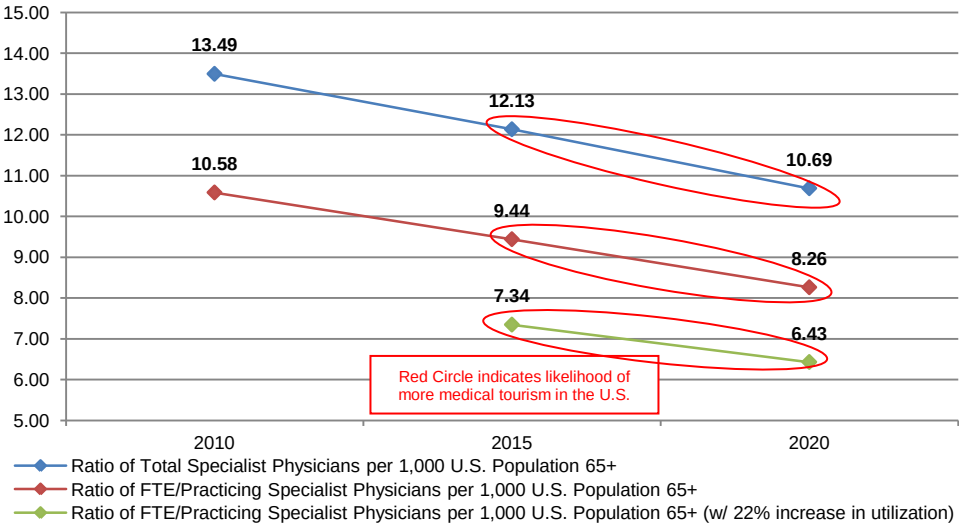
FIGURE 3: U.S. PHYSICIANS PER 1000 PEOPLE (65+)



Source: David Vequist et. al, 2012.

Figure 4 repeats the exercise for senior citizens, but now accounting for specialist physicians. As the ratio of total physicians per population over 65 years old decreases from 12.13 in 2015 to 10.69 in 2020 (12% decrease), the likelihood of medical tourism activity in the U.S. increases. Also, when the estimated ACA utilization increase of 28.5% is applied to the physician ratios there is the greater likelihood of increasing medical tourism activity in the U.S., since the ratio of specialist per thousand population falls by 14% from 7.34 to 6.43.

FIGURE 4: U.S. PHYSICIANS PER 1000 PEOPLE (SPECIALISTS & 65+)



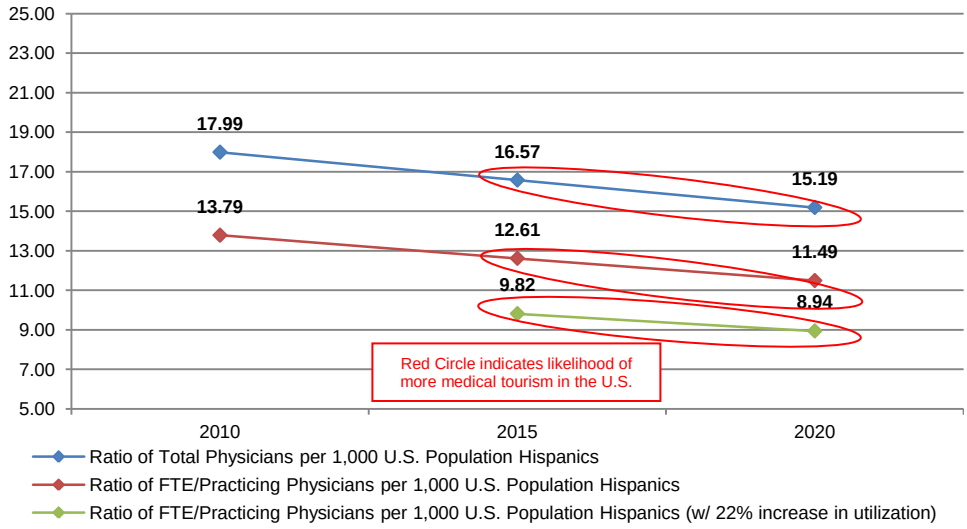
Source: David Vequist et. al, 2012.

Figures 5 and 6 repeat the exercise for Hispanics because they currently make up a majority of the growth in the U.S. population[8] and tend to suffer from more health issues (e.g. obesity) than the average U.S. resident. According to the Center for Disease Control report on Health Disparities and Inequalities Report, 2011, the prevalence of obesity is lower among whites than among blacks and Mexican-Americans. This exercise is of most relevance to Latin American and Caribbean countries as Hispanics tend to be the main U.S. travelers to the region in search of medical treatment. This is mainly due to their familiarity with the language and culture, but also because they have better access to information regarding hospitals, doctors and other medical facilities.

In this case, absent the ACA, the ratio of total physicians per thousand Hispanics decreases from16.57 in 2015 to 15.19 in 2020, or 9.1%, increasing the likelihood of increased medical tourism activity in the U.S. Also, when the estimated ACA utilization increase of 28.5% is applied to the physician ratios the physician's supply falls by 9% the greater likelihood of increased medical tourism activity in the U.S. When looking at specialists, the drop in the per capita ratio of specialists per thousand Hispanics is even larger: 9.7%. This highlights the potential for medical tourism among this population.

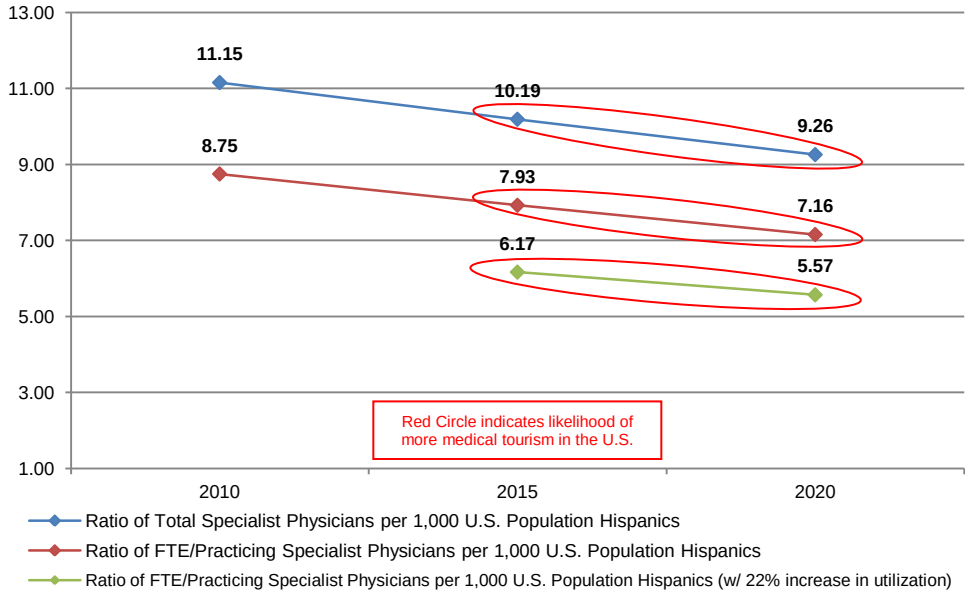
[8] More than half of the growth in the total U.S. population between 2000 and 2010 was because of the increase in the Hispanic population. Between 2000 and 2010, the Hispanic population grew by 43 percent, rising from 35.3 million in 2000 to 50.5 million in 2010. By 2010, Hispanics comprised 16 percent of the total U.S. population of 308.7 million. While the non-Hispanic white alone population increased numerically from 194.6 million to 196.8 million over the 10-year period, its proportion of the total population declined from 69 percent to 64 percent.(U.S. Census 2010, http://2010.census.gov/news/releases/operations/cb11-cn125.html)

FIGURE 5: U.S. PHYSICIANS PER 1000 PEOPLE (HISPANICS)



Source: David Vequist et. al, 2012.

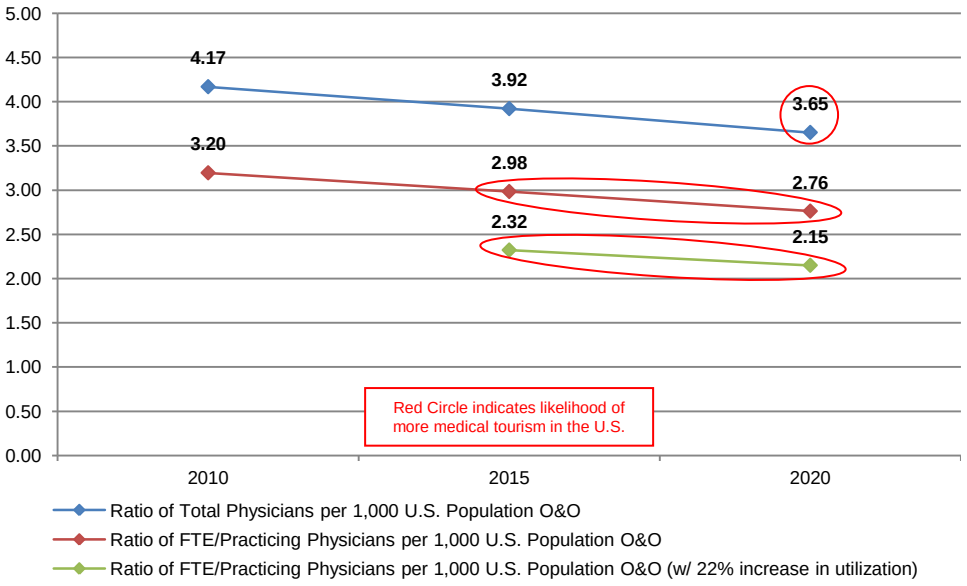
FIGURE 6: U.S. PHYSICIANS PER 1000 PEOPLE (HISPANICS & SPECIALISTS)



Source: David Vequist et. al, 2012.

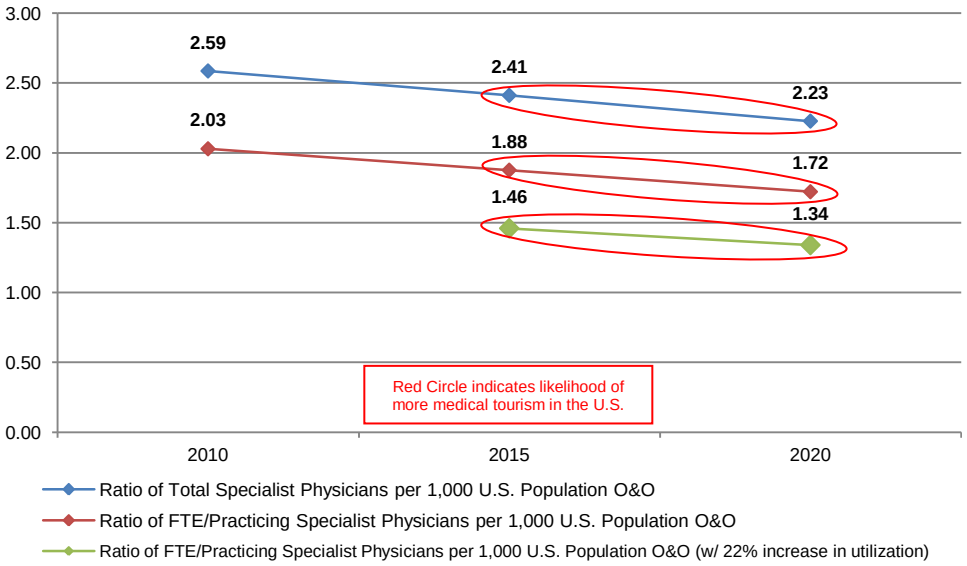
Figure 7 looks at the number of total physicians compared to the number of people overweight and obese in the U.S. using data from U.S. Center for Disease Control. The number of people overweight and obese is a growing percentage of the U.S. population and bariatric surgery is one of the main treatments sought out abroad. As the ratio of total physicians per population overweight and obese decreases it appears that there is the greater likelihood of increased U.S. patients seeking medical tourism (which occurs only in the year 2020 projection). Also, when the estimated ACA utilization increase of 28.5% is applied to the physician ratios there is the greater likelihood of increased medical tourism activity in the U.S. Figure 8 repeats the exercise for specialists and finds that there is an increased likelihood of medical tourism in this case.

FIGURE 7: U.S. PHYSICIAN PER 1000 PEOPLE (OVERWEIGHT & OBESE- O&O)



Source: David Vequist et. al, 2012.

FIGURE 8: U.S. PHYSICIAN PER 1000 POPULATION (O&O & SPECIALISTS)



Source: David Vequist et. al, 2012.

IV. Potential impact on national health care in medical tourism destinations

Experiences show that the medical tourism industry has grown in different ways and with different combinations of public and private sector involvement. Because of the many opportunities for economic growth through the promotion of medical tourism, many countries around the world are consciously marketing their health care to foreign patients. Marconini (1998) notes that "it has become increasingly accepted that national care systems should be regarded as export-oriented industries whenever national health conditions permit governments to do so." In the same vein, Bookman and Bookman (2007) find that the public sector encourages medical tourism in all of the ten destination countries under their study (Argentina, Chile, Costa Rica, Cuba, India, Jordan, Malaysia, Philippines, South Africa and Thailand).

Many countries have adopted extensive measures in order to boost their medical tourism industry. For example, the government in Philippines has supported all activities related to medical tourism by creating the *Medical Tourism Program* under the Philippine Medium Term Development Plan, with the hope of adding to the country's economy (Caballero-Danell and Mugomba, 2007). And in Malaysia the government created the National Committee for the Promotion of Health Tourism

Once the government has decided to promote medical tourism, the challenge becomes deciding the type of incentives to offer. Governments can provide incentives such as reducing tariffs on the importation of hospital equipment (e.g. Philippines in its 2004 Investment Priorities Plan), lowering import duties on equipment required for medical tourism (e.g. India), and giving incentives directly to hospitals. In Malaysia, the government provides incentives to private medical hospitals that are involved in health tourism by marketing some of those establishments abroad, and in Cuba the government grants budgetary allotments to hospitals that give priority to foreign patients over locals (Bookman and Bookman, 2007).

Besides incentives to promote medical tourism services, governments can facilitate the development of appropriate physical infrastructure by investing in the improvement of roads, transportation, electrification and communication systems. Caballero-Danell and Mugomba (2007) note that in all of the destinations under their study the government was involved, to some extent, in the development of infrastructure of the medical tourism industry including hotels, resorts and hospitals. In India, for example, the Ministry of Health and Family Welfare and the Ministry of

Tourism have actively developed policies and infrastructure tools in an effort to promote the growth of the industry.

Finally, governments can foster cooperation within the public sector by forming alliances among the different ministries of Health, Tourism and Commerce as well as offices in charge of migration and foreign travel (Bookman and Bookman, 2007).

While the public sector's ultimate goal is to provide equitable and appropriate health care to all citizens, the private sector's primary objective is to maximize profits by attracting foreign patients. Given this duality, Bookman and Bookman (2007) suggest that a successful medical tourism industry can only be achieved with the cooperation of both sectors. Many of the medical tourism destinations do have informal and voluntary cooperation of some form between the public and private sectors.

Government incentives or subsidies to attract private sector investment are key to the sustainable growth of the medical tourism industry. Authors such as Gonzales, Brenzel and Sancho (2001) and Brenzel (2004) recognize that both sectors can mutually reinforce the public health care system. In countries where the private sector leads the medical tourism industry, Brenzel (2004) notes that the government's role would be to provide an enabling legal and regulatory framework as well as to make available necessary finance and technical support to private entrepreneurs.

Gonzales, Brenzel and Sancho (2001) suggest that policies should be implemented in order to ensure that the local population's health care access is not jeopardized. A commonly suggested strategy is cross-subsidization of the public and private health care sectors (Chanda, 2001 and Díaz Benavides, 2002). Brenzel (2004) suggests that through cross-subsidization, part of the revenues generated from the provision of health care to foreign visitors can be allocated for improving the quality and access of health care to the domestic population. This can be achieved, for example, by taxing earnings from "exports" of health services. One of the challenges, however, would be to decide which economic activities related to medical tourism will be taxed and by how much (Bookman and Bookman, 2007).

In addition, many authors suggest that cross-subsidization could also be implemented through the provision of free beds, or at least at subsidized rates, to the local population while foreign patients are required to pay (Bookman and Bookman, 2007). In the same vein, Mattoo and Rathindran (2006) propose requiring private providers to offer a proportion of their services to the poor.

One of the challenges in fostering the industry is the potential of creating an inequitable two-tier system that promotes high quality health services to foreign patients and at the same time struggles to provide access to essential health care to the local population. This dual market can result in the "crowding out" of the local population if the best doctors, technology, beds and hospitals that are available to foreign patients are not accessible to the locals (Chanda, 2002). In India, for example, there is a general perception that the promotion of super-specialty hospitals for medical tourists has aggravated the already existing dual market structure between the private and the public Indian health care system (Chanda, 2001).

Another risk, especially in countries where health care delivery is already inequitable, is that medical tourism will encourage an internal brain drain of medical personnel. This exodus of skilled medical staff, who leave the public sector lured by higher wages in private hospitals, may hurt the public sector, where patients have very limited ability to pay (Connell, 2006). For instance, Arunanondchai and Fink (2007) find that in Thailand, higher salaries offered to medical staff by private hospitals that export their services have diverted medical personnel away from public hospitals and private hospitals that serve only the local population, thereby increasing even more shortages of medical professionals in the country. Estimates conclude that an extra 100,000 patients seeking medical treatment in Thailand result in an internal brain drain of between 240 and 700 medical doctors (Arunanondchai and Fink, 2007).

Similarly, Adams and Kinnon (1998) note that there would be a "social cost" if public funds are used for subsidizing health care providers and upgrading health services to attract foreign patients,

especially in cases when the capacity of the health system is already limited. Furthermore, Wolfe (2006) points out that through the promotion of technology-intensive tertiary services, medical tourism creates substantial distortions in the allocation of resources at the expense of primary care.

According to Mattoo and Rathindran (2006) national health care capacity (e.g. availability of beds in hospitals), though clearly limited in many exporting countries, is rather likely to expand as a consequence of increased foreign demand which, in turn, leads to greater domestic and foreign investment. In the same vein, Lautier (2008) argues that the private health sector normally does not face these capacity constraints and, therefore, crowding-out effects are less likely to result as a consequence of a private-sector led promotion strategy.

Several authors have proposed a number of suggestions to ensure the materialization of the potential gains from trade in health services. Adams and Kinnon (1998) and Díaz Benavides (2002) for example, call for putting the purpose of furthering public health objectives and the provision of universal health care to the local population as the principal objective of any policy that promotes the export of health services. According to Díaz Benavides (2002) in order to achieve a win-win situation for the exporting country as well as the importing country, the desired objectives of a health service export promotion strategy requires a clear definition or rationale, and an adequate selection and implementation of means. Chanda (2002) adds that it is extremely important that the existing conditions in the national health sector are acknowledged when defining export promotion policies.

Finally, in order to assess the developmental impact of trade in health services, Lautier (2008) proposes addressing two questions: Do developing countries have the potential to export health services, and what are the value and consequences of this trade for the domestic economy regarding output, foreign earnings and employment? Although the impact of trade in health services will vary from country to country and is dependent on various factors, Chanda (2002) claims that the impact will ultimately depend on the specifics of a country's national health care system, the regulatory environment and government policies.

V. Looking ahead: overcoming barriers and challenges

Medical tourism has the potential to generate foreign exchange revenues in health exporting countries while lowering costs of health care and alleviating supply shortages of health services in industrialized countries. However, countries engaging in medical tourism face a number of challenges that hinder the growth of the industry.

In a World Health Organization study on trade practices and export of health services, Díaz Benavides (2002) found that the main barriers for medical tourism are: non-portability of insurance coverage; perceived quality of health professionals and health care facilities; mutual recognition of professional credentials; lack of standards for electronic medical records; and complexities in cross-jurisdictional malpractice liability. Additional barriers include the difficulties in international travel, cultural and linguistic differences and the management of post-operative complications. Countries interested in the promotion of medical tourism will have to overcome these barriers if they want to achieve the industry's full potential.

Non-portability of health insurance

Considerably one of the most important barriers to the export of health services, especially medical tourism, has to do with the non-portability of health insurance. Health insurance plans rarely cover treatments abroad; even when they do, patients must generally bear the full cost of travel, negating much of the cost savings (Mattoo and Rathindran, 2006). As was previously discussed, however, rising health care costs and access issues could be enough to encourage insurers to include portability clauses within insurance contracts in order to promote seeking treatment overseas.

To realize the full gains from trade, insurance plans must cover not only the medical services provided, but also the travel expenses of obtaining treatment abroad.

Mutual recognition of professional credentials

Many overseas hospitals involved in medical tourism employ doctors that have either been trained in the United States, the United Kingdom or have internationally respected credentials, assuaging a concern raised by medical tourists.

In this regard, Mattoo and Rathindran (2006) suggest that doctors and nurses in export-oriented health care facilities could take licensing exams used in some industrialized countries, such as

the U.S. Medical Licensing Exam (USMLE) and the National Council Licensure Examination for Registered Nurses (NCLEX-RN). Given that foreign medical graduates must pass these examinations in order to practice medicine in the U.S., it is natural that medical tourists would find it reassuring if physicians abroad have undergone similar licensing requirements. In addition, Herrick (2007) suggests that countries seeking to increase medical tourism consider recognizing licenses and board certifications from other more advanced countries.

Lack of standards for electronic medical records

Physicians in health-exporting countries generally have to evaluate the health condition of potential medical tourists by using electronic medical records (EMRS) provided by doctors from the home country. This sharing of medical history and exams can reduce waiting times and facilitate the exchange of information.

Dr. Kibbe, senior adviser to the Center of Health Information Technology of the American Academy of Family Physicians, claims that looking into the future, medical records technology must provide for "secure, private, and accurate aggregation and transport of all relevant personal health information, using tested international standards and methods, to assure that patients' experience continuity of information flow between their medical home and medical tourism providers and institutions, and are assured that nothing important about their medical history gets left behind" (Carabello and Schult, 2007).

Complexity in cross-jurisdictional malpractice liability

Another issue often raised by authors is the inconsistencies of malpractice law and liability coverage, especially in an international setting. If anything were to go wrong during a procedure abroad, the consumer would have to cope with the host country's legal system. In some countries, injured patients may have limited recourse through the court system, or may not even have the right to sue at all. Additionally, many health insurance policies do not cover medical tourism because they are worried about potential lawsuits associated with bad outcomes and malpractice in a foreign country (Deloitte, 2008a).

Countries that promote their medical tourism industry could adopt laws that are similar to industrialized countries in order to attract foreign patients. Moreover, international and regional cooperation to harmonize malpractice and liability legislation should be considered. Caballero-Danell and Mugomba (2007) found that inadequate buyer protection laws are a weakness that hinders the marketing efforts of international medical care providers. They suggest that as the industry continues to expand there is a critical need for homogenous international regulation.

International travel

There are also visa and travel formalities that inhibit medical tourism. Bookman and Bookman (2007) argue that "entry requirements and visa translate into government-imposed barriers to the international trade of medical services." Many authors agree that this barrier could be overcome by international and regional cooperation.

There are examples of countries that have begun to change their visa requirements in order to facilitate travel. India for instance, introduced the medical visa to "enable patients who wish to travel to India for medical reasons, to … stay for the duration of their treatment" (Caballero-Danell and Mugomba, 2007). The new M-visa is valid for a year and is also issued to the patient's companion(s) (WHO, 2007). Likewise, some hospitals such as Bangkok's Bumrungard have an "in-house visa extension center" so as to facilitate visa extensions for patients (Bookman and Bookman, 2007).

Cultural and linguistic differences

Lagace (2007) claims that a significant part "of entrusting medical care to different locations is about a psychological fear of the unknown." Once in a foreign country, a patient may face the risk

of miscommunication because of language barriers or lack of familiarity with a foreign culture. These concerns have already been recognized by providers of health services who are responding with multilingual nurses and physicians.[9]

Another strategy that could be pursued more thoroughly to mitigate psychological and emotional stress would be to offer accommodations and broader touristic packages to accompanying family members. Hospitals have also started to offer non-medical services such as logistical support and hospitality services. For example, London Bridge Hospital arranges airport pick-up services; Bumrungard Hospital in Thailand features a Starbucks café and a McDonald's; and other Asian hospitals also offer packages with hotels, bed and breakfasts or other housing facilities (Teh and Chu, 2005). Teh and Chu (2005) add that hospital staff in medical tourist destinations are also expected to accommodate to the religious, dietary and cultural needs of the patients. Malaysia, for instance, has developed the *Feel At Home Program* for tourists coming from West Asia which includes Arabic and Middle Eastern food and music (Bookman and Bookman, 2007).

Medical tourists also have concerns regarding the management of privacy and confidentiality issues in foreign countries. To this, Arunanondchai and Fink (2007) suggest that health-exporting countries need to develop privacy and confidentiality rules to assure patients that the foreign hospital will treat such information responsibly.

Post-operative care

Horowitz, Rosensweig and Jones (2007) claim that another issue that remains unresolved is the management of post-operative care and/or complications that might occur after the patient has returned to his or her home country. Improper follow-up care when patients return to their home country is one of the major worries, not only for the patient, but also for the insurance companies which have to cover the cost of the treatment after the patient returns home. Moreover, domestic health care providers are often hesitant to take on complicated open cases from unknown providers, especially foreign ones (Deloitte, 2008a).

[9] According to Giovanni Piereschi, the Enterprise Information Vice President and Chief Information Officer of Grupo HIMA, the San Pablo Caguas Hospital in Puerto Rico will have a fully bilingual floor with not only doctors and nurses speaking English "but also the staff who clean the rooms and bring the food" (Fajardo, 2009). The principal corporate hospital chains in India employ teams of interpreters, while Thailand's Phuket Hospital provides interpreters in 15 languages. The Bumrungard International Hospital in Bangkok employs 70 interpreters, has an English speaking staff and has 200 surgeons that hold U.S. certification (Connell, 2006).

VI. Conclusion

The growth of medical tourism during the past decade has been fuelled by different factors. Rising health care costs in industrialized countries, procedures that are not adequately covered by health insurance plans and long waiting lists in countries where health care is nationalized are some of the reasons for medical tourists to look for health care overseas. The main market driver, however, has been the availability of high quality health care at significantly lower prices, coupled with improved communications technology, especially the Internet, which has facilitated the dissemination of information.

Medical tourism as a form of trade in health services has several positive and negative implications. Positive implications include: substantial economic gains; improvement of medical knowledge and technological services; and greater availability of high quality health care services. However, there are also several challenges. Negative implications include: the creation of an inequitable two-tier system; crowding out of the local population; and overinvestment in expensive tertiary medical services at the expense of primary health care.

Economic research in this area is still in its infancy and, therefore, many authors point out the need for more studies that will evaluate the impact of trade in health services on key health care performance indicators. It is difficult, however, to measure the volume and value of the medical tourism industry given the very nature of this kind of trade. In order to better study this phenomenon in the future it will be important to collect comprehensive, reliable and internationally comparable data. This will be especially necessary for countries and institutions that plan to export their health services to foreign patients.

The Affordable Care Act, could impact the potential of medical tourism opportunities through two main channels. The first has to do with the need to keep health care costs under control in the United States. The second relates to access to medical services; as a growing number of U.S. residents gain access to health insurance and the aging of the general population puts pressure on a relatively inelastic supply of services.

If the ACA is fully implemented and the number of uninsured people is in fact reduced by 30 million, as estimated, the market for medical tourism could be reduced, but not by as much as may seem at first sight. At least 3.1 million people who are exempt from mandatory health insurance coverage might still find medical outsourcing for certain procedures their only affordable option. There will also be around 1.4 million people who will be eligible for subsidized coverage in the health benefit Exchange. If they remain uninsured, the incentives to travel abroad for treatment are unchanged. If they purchase insurance through the Exchanges, they could still find it less expensive to

travel abroad and/or the insurance could provide incentives for them to outsource some of their medical treatment in an effort to maintain costs under control. For the 2.9 million who choose to be uninsured and are relatively healthier and younger the option of traveling abroad for treatment remains open and affordable. Large employers and insurers will also be more likely to offer the alternative to patients to receive certain treatments abroad in order to reduce costs. In turn, this may help lift some of the barriers to trade in health services that are in place today, such as the non-portability of medical insurance and the limited amount of medical history sharing.

In addition, the estimated increase in the demand for health services as a result of the universal coverage mandated by the reform together with the relative inelasticity of the supply of those services will create bottlenecks in the provision of services that may encourage patients to travel abroad for health treatment.

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