

# Medical Tourism Today: A Narrative Review of Existing Knowledge

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### Introduction

In *The Wealth of Nations* Adam Smith famously posited that “if a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry employed in a way in which we have some advantage” (Smith 1776). It is unlikely that Smith could foresee the reverberations of his hypothesis of comparative advantage in the health care industry of the 21st century; until the latter part of the 20th century, health and health care were not considered commodities to be traded in the global marketplace. In this article we describe and review evidence from a narrative review of one particular trend in the global commercialization of health care: what has become commonly known as ‘medical’ or ‘health tourism’ in which individuals travel to foreign countries to seek remedies for their health issues.

Existing literature suggests that the majority of medical tourists are individuals from developed nations (the global North) traveling for medical treatment to low- and middle-income nations (the global South). Motivations for this trend include lower cost and rapid access, and the high quality of care increasingly available in some facilities in the global South. But medical tourism also flows from the global South to the global North, and both directional flows have implications on health systems and health care access in destination countries. Although there are no current means of accurately tracking the exact number of individuals taking part in this growing global industry, one source estimated the number at approximately 350,000 in 2003 (Horowitz, 2007). Specific concerns exist with the apparent rapid growth of surgical, dental, fertility and organ transplant tourism. After summarizing existing evidence of medical tourism flows, we turn our attention to a discussion of these concerns, specifically the (potential) risks and benefits of such flows for both source and destination countries.

### Methods

The review consisted of a search of electronic databases and was undertaken between May 27 and July 15, 2009. Searched databases include PubMed, Scopus, Cinahl, and CAB Health. Given the recent emergence of literature related to medical tourism, the search strategy was more complicated than would usually be the case. “Medical tourism” has yet to be established as a searchable MeSH or otherwise indexed term. As a result, the number of search terms used to elicit a comprehensive literature database was extensive and included, alone or in combination: medical tourism, health tourism, medical, health, surgery, surgical, reproductive, fertility, stem

cell, dental, dentistry, organ, transplant, tourism, travel, tourist, developing countries, developed countries, cross border care, patient mobility, and internationality. 803 articles were retrieved and imported into Reference Manager for further analysis. Reference lists of the most relevant papers were reviewed for further citations, unpublished reports and grey literature, yielding a total sample of 212 relevant articles. Owing to a general lack of rigorous research in the area to date, the literature was assessed according to a gradient of complexity: high (included new empirical data,  $N = 46$ ), medium (referenced empirical data with strong analytical arguments  $N = 136$ ) and low (commentary only,  $N = 30$ ). Most of the high complexity literature dealt with specific forms of medical tourism, notably transplant tourism. We did not include low complexity literature in our analysis.

### **The North-South Flow**

In recent decades several developing nations, such as India and Thailand, have created advanced medical infrastructures that are designed to appeal to an increasing number of 'Northerners' in terms of cost, variety and quality of health services (Garud 2005). The North-South flow is the best known medical tourism route, the majority of individuals within this group originating in the United States, Canada and Western Europe. The same study forecasted this number to rise to 750,000 by 2007 and 6,000,000 by 2010, driven primarily by increasing health care costs in the United States and waiting times in countries such as Canada and the UK (Horowitz 2007). In Canada, for example, despite recent declines in average wait times in most provinces, delays for orthopedic and cardiac surgeries can be lengthy, with many individuals being forced to wait months for procedures (Esmail and Hazel 2008). For Americans, affordable access is the primary catalyst; in 2006, the number of uninsured reached 46 million, a number that does not include the many underinsured Americans (York 2008). A Senate Special Committee in the US concluded that interest in medical tourism was being driven by its country's expensive health care. Even after accounting for associated airfare and accommodation, some medical procedures abroad could be as little as  $1/10^{\text{th}}$  the cost in the US (Turner 2007B). Northerners are also traveling to Southern countries for procedures such as dental care, cosmetic procedures, assisted reproduction and emerging treatments in such areas as stem cell therapy that may not be available in their home country, or may not be covered by their public or private health insurance provider (Horowitz 2007).

### **The North-North Flow**

The North-North route encompasses travel from one high-income country to another to obtain health care. The majority of this traffic occurs between nations of the European Union; indeed, medical tourism is not a new concept for Europeans. As early as the 18<sup>th</sup> century, wealthy Europeans would travel to famous French spas or to the medicinal waters of Bath and Germany for treatments of gout, skin ailments and liver disorders, amongst other maladies (Garud 2005). During the 20<sup>th</sup> century, national boundaries became more porous with the creation of the European Union, and the development of European-wide legal, social and trade networks. One of the outcomes of this harmonization process has been an increase in cross border health care, primarily in adjacent countries (Ninian 2008). Although medical tourism within the European Union remains in its infancy, accounting on average for only 1 percent of public health care spending annually, indications are that this trend will grow (Ninian 2008). For instance, a 2002

poll found that to avoid lengthy wait times 15 percent of British citizens would be willing to travel anywhere in Europe for medical care (Beecham 2002).

A series of court cases challenging restrictions on cross border care within the EU further reflects a growing acceptance of medical tourism. As early as 1998, the European Court of Justice began to field court cases challenging the requirement of prior approval and refusal of reimbursement for cross border care, arguing that these restrictions violated trade agreements on the movement of goods and services, health care being a service (Healy 2009). Since then, additional European Court of Justice cases have established the right of EU citizens to obtain reimbursement for cross border medical treatment sought as a result of excessive waiting times domestically.

To formalize the operational aspects of this traffic, the European Commission released a draft Directive on patient rights in cross border care (Ninian 2008, Commission of the European Communities 2008). The Directive codifies the right of EU citizens to obtain such care without prior authorization for treatments and procedures with lengthy wait times domestically, although it does not clarify what constitutes an undue delay. Individuals obtaining treatment in another EU country must queue for that procedure behind all other individuals already waiting and should it cost more than domestically will be responsible for paying the difference. Individuals will not be reimbursed for procedures that are not funded domestically, preventing individuals from obtaining a treatment considered unethical or unsafe in their own country. The current timeline for the Directive indicates an implementation target of 2011, subject to approval by the majority of the 27 member states and the European Parliament (Ninian 2008).

The same potential for cross border care between the United States and Canada does not exist due to fundamental differences in health care provision between the two nations. In Canada, a single payer universal health care system exists. In principle, all Canadians have legislated equal access to health care. American health care is characterized as a pluralistic, multi-payer system in which the majority of Americans are protected by health insurance provided through their place of employment or paid for privately. In general, American health care follows a business model; medical facilities are for-profit and compete with each other for business. As a result, occupancy levels are lower, and waiting times for consultations with specialists and medical procedures are almost nonexistent. Popular perception holds that, as a result of long wait times in Canada and the availability of immediate and high quality care in the United States, cross border care by Canadians into the US is extensive. However, while Canadians do spend more on health care in the US than vice versa, the evidence does not indicate a significant level of cross border care by Canadians in the US (Katz 2002). The largest barrier for Canadians seeking medical care in the US on their own initiative is the high cost of such care, although provincial health insurance plans will sometimes authorize and cover costs for treatment abroad if wait times for certain (often unusual) procedures become too lengthy or if the necessary treatment is not yet available in the province (Piturro 2002). Canadians seeking care in the US outside of the remit of their public insurance plan sometimes do so for cutting edge procedures and treatments not yet approved in Canada or that are perceived as being of higher quality (Katz 2002).

Americans traveling to Canada for health related services are most often seeking pharmaceuticals, which are typically much less expensive in Canada, largely attributable to regulatory actions taken by Canada's federal and provincial governments to restrain drug prices

(Korcock 2000). Of the 10 most commonly prescribed drugs in the US, prices are approximately 64 percent less in Canada than in the border state of Washington (Korcock 2000). American pharmaceutical tourism is not surprising given that, on average, 30 percent of an American senior's income is spent on prescription drugs (Ganguli 2003). American citizens are allowed to cross back into the US with up to 3 months worth of prescription drugs, making this limited form of medical tourism very attractive to some groups of Americans.

### **The South–North and South–South Flow**

These flows are characterized by medically-motivated travel from a low- or middle-income country into a high-income country (South-North), or to another low- or middle-income country (South-South). Many low-income countries lack a health system infrastructure with adequate provision for primary health care or specialized health treatments and procedures. Given an ability to pay and to travel, individuals from these locales may seek services in other countries. For wealthy individuals destinations such as the United States and Western Europe are desirable, although other countries such as the United Arab Emirates, Jordan, Thailand and Singapore have made significant efforts to attract such persons (Lautier 2008). For the less advantaged, travel for health care may be financially devastating but, in the absence of available treatments domestically, it can become a forced decision (Kangas 2007). Yemen provides an example. Medical travel is a common experience for Yemeni, since the treatment infrastructure for cancer, heart disease and other serious medical conditions does not exist. Exact numbers of medical travelers out of Yemen are unclear; estimates range from 40,000 to 200,000 annually (out of a population of 17 million). The most popular destinations for Yemeni medical travelers are India and Jordan, with Mumbai in India being the least expensive and most common destination of choice for poorer Yemenis (Kangas 2007). Kangas' ethnographic review of medical travel originating in Yemen relates how families are forced to sell property, including land, livestock, and jewels, and to borrow heavily from friends and family members to finance medical trips for competent and specialist care that they desperately need.

Popular destinations for medical travelers from low-income nations are dependent on the region. For Middle Eastern and North African medical tourists, Jordan is a popular destination due to its relatively sophisticated medical infrastructure and affordable rates. Approximately 87 percent of Jordan's health service exports are provided to individuals from neighboring countries. The North African country of Tunisia has attracted an increasing number of medical tourists in recent years due to its relative sophistication in health care, and is thought to have the most potential for providing medical tourism services in the Middle East and North African region. In 2003, approximately 42,000 foreigners visited Tunisia for health purposes, 34,000 of whom were from neighbouring Libya (Lautier 2008).

In the Latin American and Caribbean (LAC) region, Cuba is a destination of choice for many medical travelers. In 2000, some 3,500 medical tourists visited Cuba, 80 percent of whom originated in neighbouring LAC countries. Cuba is an attractive option due to the sophistication of its medical care and low cost, notably example in comparison to the United States (Charatan 2001). In an effort to encourage medical tourism, the Cuban government formed *Servimed*, a company that facilitates foreign access to medical care in Cuba. In addition, the Cuban government has commenced negotiating bilateral agreements with neighbouring nations to

further attract medical tourists. In South America, Chile presents another option for medical travelers, generally originating from Bolivia, Peru and Ecuador (Cortez 2008).

This South-South flow is the most under-studied within the medical tourism literature. Some researchers have begun to examine how traffic within this route could ameliorate access to health care in some of the globe's poorest nations. Walraven et al. (2009), for instance, hypothesize that cross border care collaboration between the poor, resource-constrained settings of the border regions of Pakistan, Afghanistan, and Tajikistan could improve maternal and child health by exerting a multiplying effect on present (and inadequate) services. Stakeholder interviews affirmed the feasibility of attempting such provision, although it remains to be tested empirically. Nonetheless, the potential for cross-border care in other resource-poor environments to improve access to health care remains an important researchable policy option.

### **Forms of Medical Tourism**

Given the breadth of available services in many Southern countries catering to medical tourism, it is useful to categorize types of treatments and procedures. Bookman and Bookman (2007) provide a useful framework, grouping medical care into three categories:

1. Invasive procedures, which refers to high technology procedures performed by specialists. Treatments under this category include dental care, cosmetic procedures, joint replacements and resurfacing, cancer and stem cell therapies, transplant surgeries, and reproductive procedures.
2. Diagnostic services, which includes comprehensive health assessments, magnetic resonance screening (MRI), heart stress tests, blood screening, etc. These procedures are popular among business travelers who might take advantage of their low cost while engaged in other travels in low- and middle-income countries.
3. Health and wellness tourism, which includes all spa related services, detoxification diets, special exercise regimes such as yoga, and massage and other relaxation techniques (2007). The provision of these elective, 'lifestyle' treatments in low- and middle-income countries are less likely to be part of public health services, and thus probably have less potential to impact the level and quality of care provided to local populations. For convenience, we have excluded this category from the rest of our paper's discussion, while recognizing that persons involved in such services may actually be health workers moving from an underpaid public sector to a better paid private sector; and that in many Asian countries massage (as one example) is a component of publicly offered primary health care services.

While there is generic discussion of 'medical tourism,' there is also emerging literature on specific forms. Transplant tourism, involving cross-border procurement of organs and transplant surgery, is the most frequently discussed form, due to its ethical controversy which we address later in this article. This flow occurs most often along the North-South route where individuals from affluent nations travel to low- and middle-income countries to obtain organ transplants, usually involving procurement from commercially-motivated vendors. Popular destinations include India, Pakistan, Colombia and the Philippines (Shimazono 2007, Turner 2008, Khamash & Gaston 2008, Budiani-Saberi & Delmonico 2009, Merion et al. 2008). The second most

widely referenced form is dental care. Dental tourism is generally regional and involves seeking care in the closest possible destination with low-cost providers. Popular destinations include Hungary, Mexico and Thailand (Turner 2008A, Cortez 2008). Reproductive tourism, the third most discussed form of tourism in the literature, is frequently motivated by both the desire to circumvent domestic laws and regulations limiting access to this type of care, and for cost saving purposes (Pennings 2002, Mulay 2006). Reproductive tourism occurs within all four routes of medical tourism (North-South, South-North, North-North, South-South), depending on the type and purpose of the procedure.

### **The Medical Tourism Industry**

Despite its recent emergence, the global cross-border medical care industry has developed rapidly, including parallel growth in related tourism and hospitality sectors. Medical tourism brokerages are established in most developed nations, promising to link prospective patients with qualified facilities and surgeons, arrange air travel and accommodation and even facilitate tourist excursions to renowned cultural landmarks. The addition of these 'concierge' services is an attractive bonus for many medical travelers, easing their transition into unfamiliar cultures and environments. Medical tourism brokerages highlight the cost savings available in low- and middle-income countries (Turner 2007, Turner 2007B, Burkett 2007, Deloitte Report 2008). The websites of these brokerages frequently make comparisons between the costs of popular surgical and cosmetic procedures in the US and low- and middle-income countries, arguing that even inclusive of travel and accommodation costs, medical travel has the potential to save prospective patients up to tens of thousands of dollars or more (Turner 2007A). The marketing techniques utilized by these brokerages are often extensive. For example, Hungarian Dental Travel, a medical tourism brokerage firm operating primarily out of the UK, links British residents seeking affordable dental care to dentists in Hungary. Recently, the company organized a tour of a portable, inflatable consultation room across the UK. The 'tent' included an x-ray machine and dental equipment allowing the on-site dentist to perform assessments for €15. The company would then arrange for interested parties to travel to Hungary for dental care, at which point their assessment fee would be waived (Anonymous 2008).

Brokerage companies also emphasize the quality of care that potential patients will receive. Many of the brokerages feature profiles of the medical facilities and surgical specialists they partner with, emphasizing Western licensing and training and highlighting the credentials of the medical facilities by international accreditation bodies. For example, Joint Commission on Accreditation for Healthcare Organizations (JCAHO) through its affiliate, the Joint Commission International (JCI), has been responsible for accrediting more than 123 medical facilities and organizations crossing Asia, Europe, the Middle East, the Caribbean and South America. The bulk of the international medical facilities were accredited in late 2005 and 2006, likely reflecting the growing popularity of medical tourism (Forgione 2007). Accreditation is an important tool used by medical facilities to attract clientele from high-income nations by demonstrating that quality and safety standards meet or exceed Western standards of care.

The insurance industry, notably in the US, is also taking note of medical tourism trends, and responding by developing products of potential interest to prospective medical tourists. Medical tourism brokerages operating out of the US, for example, Planet Hospital and Med Retreat, have

also started negotiating with insurance providers to develop insurance policies for their client/patients, recognizing that the non-portability of insurance coverage poses one of the most significant barriers to the growth of medical tourism (York 2008). Both self-insured companies and large insurance firms are also attracted to the low-cost provider networks offered by the medical tourism industry. In 2007, Blue Ridge Paper Products Inc. of South Carolina was among the first self-insured companies to encourage medical tourism among employees in order to take advantage of the significant cost savings in health care available in India. The first volunteer for the program consented to travel to India for rotator cuff repair and gall bladder removal surgery. Blue Ridge offered to pay for travel and accommodation costs in addition to providing the employee with 25 percent of the cost differential as a cash bonus incentive. The case made national headlines when the company union condemned the policy and brought Blue Ridge to court out of concern about lax overseas medical malpractice laws, forcing them to rescind the program (McLean 2007, Higgins 2007, Cortez 2008). Soon after, the Hannaford Bros. Supermarket chain began offering employees the chance to travel to Singapore's National University Hospital for hip and knee replacements. They, too, offered to cover travel and accommodation expenses for the patient and spouse. Their medical tourism program was implemented in the wake of strong criticism from their European owners due to the sky rocketing costs of providing health care to their 27,000 American employees. Hannaford plans to begin extending their medical tourism program to other procedure and treatments due to its success (Carroll 2008). American politicians have also reacted to the medical tourism trend by introducing legislation that would encourage state employees to travel overseas for health care. Ray Canterbury, a delegate of the West Virginia state legislature, introduced a bill in 2006 that offered financial incentives to state employees willing to leave the country for medical care. Co-payments and deductibles would be waived, and travel and accommodation expenses would be covered. He proposed that any cost savings would then be plowed back into the state coffers to reduce premiums for all other employees, a supposed 'win-win' situation (Turner 2007B). (We have been unable to locate any additional information about the status of this initiative.)

Increased participation by the insurance industry may also reduce concerns of prospective medical tourists over quality of care and poor legal frameworks addressing malpractice in many developing countries (Mattoo 2006). Quality of care concerns are also being addressed in destination countries. A number of international medical facilities have begun to partner with Western medical teaching facilities and hospitals in order to take advantage of their 'brand name', hoping to 'signal' quality to prospective patient consumers with prestigious names they are familiar with and trust. Both Harvard Medical International and the Mayo Clinic are partnered with the Dubai Healthcare City. Wockhardt Group medical facility, one of the most prominent chains of health care facilities in India, has also become affiliated with Harvard Medical International. Their main competitor in India, the Apollo group of hospitals, is now partnered with Johns Hopkins Medicine International. These branded affiliations are prominently proclaimed in the marketing campaigns and websites of these facilities in an effort to attract increasing numbers of Western medical tourists (Turner 2007B).

The internet plays a pivotal role in this industry, acting as the key communication conduit between providers and potential consumers (Cortez 2008, Reed 2008). In recent years, consumers of the North have increasingly looked to the web to access information on their health and the medical care options available to them. Recent studies show that aside from email and

shopping for products and services, research on health care is the most popular use of the internet among Americans (Cortez 2008). The internet allows medical tourism to flourish; a plethora of websites dedicated to attracting potential medical tourists have been set up in the last few years. These attractive websites, almost all of which are available in English, emphasize (low) cost and quality. Through some interactive websites, consumers can schedule treatments and procedures, learn about and contact their surgeon or other specialists, book airfare and accommodation, and arrange for tourist excursions (Cortez 2008). Online forums are also a resource for medical tourists. For example, PlasticSurgeryJourneys.com, encourages past and prospective medical tourists to discuss potential medical facilities and the quality of care they offer, the skill of surgeons and other medical practitioners, and the side effects and complications of surgeries and other procedures; all of which is intended to reduce individual concerns and thereby promote the medical tourist trade (Herrick 2007).

### **Advantages of Medical Tourism for the North**

Cost savings, as noted already, are cited as the greatest motivating factors for medical tourists, particularly from the US. Lower labour and living costs, the availability of inexpensive pharmaceuticals and the low cost or absence of malpractice insurance allow many Southern countries to offer some procedures at 10 percent the American cost, inclusive of travel and accommodation. A heart valve replacement surgery costs USD 200,000 in the US, but only USD 10,000 in India, including airfare and accommodation (Abdullah 2006). Price differences between procedures in some developing countries and the UK are also impressive. A shoulder operation performed privately in the UK would cost £10,000, compared to only £1,700 in India and with only a little over a week's wait time from the initial contact (Sengupta & Nundy 2005).

A recent cost analysis by Mattoo and Rithandran (2006) sought to identify surgeries for non-acute conditions that met the following criteria: patients would be able to travel without major discomfort; were 'fairly simple and commonly performed'; did not often involve post-operative complications; required minimal post-operative follow-up; and involved a high degree of patient mobility following the procedure. They were able to identify fifteen surgical procedures that met these criteria and subsequently performed a comparison between fee rates from US Medicare and those of medical facilities in developing nations. Their results indicate that if only one in ten American citizens in need of one of these fifteen procedures was to travel abroad (and be given a financial incentive to do so), the cost savings would amount to USD 1.4 billion annually. If expensive coronary artery bypass surgery (CABG) was included, the cost savings would be over USD 2 billion annually. Given their rather conservative set of criteria and relatively short list of applicable surgical procedures, the overall cost savings would likely be far more substantial than Mattoo and Rithandran have estimated. Researchers have also speculated that medical tourism could lower costs within some developed countries. Burkett contends that continued low cost high quality care in developing countries will place cost-reduction pressure on privately-provided and financed care in countries such as the US, if facilities are to remain competitive and viable within a globalizing marketplace (Burkett 2007).

Shorter wait times for non-urgent but medically necessary procedures are another driver in North-South flows. Wait times for many surgeries are over six months in Canada and in some

Western European nations (Cortez 2008), while surgery can be arranged in a fraction of that time in many destination countries (Turner 2007, MacReady 2007).

Medical tourists may also have access to technologies and procedures that are not yet available or approved in North America and Europe. For instance, until 2006, hip resurfacing, a less invasive alternative to hip replacement, was only available in some Asian destination countries. In India, the Wockhardt Group of hospitals is the only in the world to perform COPCAB (conscious off-pump coronary artery bypass), a heart surgery designed for individuals who are not good candidates for surgery using anesthesia (Dunn 2007).

Medical travelers from the developed world are also motivated by the desire to obtain medical procedures that are unavailable domestically due to legal constraints. This is particularly true in the area of reproductive tourism, where laws governing the provision of assisted reproduction treatments diverge greatly between, and even within, nations. Within the European Union, Belgium and Italy have little legal direction concerning assisted reproduction. As such, they are popular destinations for individuals in neighboring countries with more restrictive policies. For instance, in Germany, in vitro fertilization (IVF) with donor sperm is illegal, and in the Netherlands there are restrictions on the maximum allowable age for recipients of assisted reproduction therapies. Individuals from these and other European Union countries travel to Belgium or Italy to obtain such assisted reproduction procedures (Pennings 2002). India is another option for travelers seeking advanced care in assisted reproduction, with hospitals offering IVF, artificial insemination and intracytoplasmic sperm injection at vastly reduced prices compared to Western European countries (Mulay 2006). Similar cross border care exists for 'abortion tourism' where individuals make the choice to travel outside of their country to terminate a pregnancy which is otherwise not possible because of domestic legal restrictions or lack of access.

### **Disadvantages and Risks of Medical Tourism Trend for the North**

Despite claims of medical tourism's advantages to individuals and health systems of the North, there are also concerns, most often related to the quality of care available in facilities in developing countries (Reed 2008, MacReady 2007, Wapner 2008). However, there are many advanced hospitals and clinics in Southern countries that offer state of the art, high quality care. The Apollo chain, which operates out of India with some satellite facilities elsewhere in Asia, claims a 99 percent success rate with cardiac surgeries, comparable to any specialized facility in the United States (Mattoo & Rithandran 2006), although no information on how 'success' was measured in this claim was provided. The majority of medical facilities marketed to potential patients from the global North do not boast similar success rates as the Apollo or Bumrungrad group of hospitals. These lower quality facilities and non-accredited facilities offer reduced rates but could also pose higher risks of complication and less likelihood of protection from malpractice.

Although statistical data relating rates of complications have not been captured to date, anecdotal accounts of malpractice or medical misadventure are frequent in the literature. In 2005, an investigation into an outbreak of mycobacterium abscessus infection among five individuals in one region of the United States led investigators to trace the source of the infection to one

cosmetic surgical centre in the Dominican Republic, while uncovering an additional seven cases in other regions of the country (Newman 2005). A more recent investigation into an outbreak of Hepatitis B in two hospitals in the greater community of North East London led investigators to track the source infection to a man who had undergone a renal transplant in India. From this original case, a total of 732 patients were identified as 'at risk' of which 336 were tested, with the costs of the tests borne by the UK National Health Service (NHS) (Harling 2007). In other instances, medical tourists presenting with complications have required in-patient non-surgical and surgical treatments as well as revisional surgeries, which costs again covered by the UK NHS even though the original procedures were not (Jeevan 2008). The financial costs borne by patients' home countries due to medical complications arising from medical tourism can be extensive (Jeevan 2008), although no precise estimates were offered. Further, medical tourists may return home with little or no documentation regarding the treatment they received, drugs they were given, or whether or not they received blood transfusions. Domestic medical practitioners are faced with the confusing task of piecing together information with possible consequences for patient health given inevitable gaps (Turner 2007A).

In the case of medical malpractice, there is little recourse for patients. A lack of malpractice laws or lax implementation of them in destination countries may assist practitioners to maintain low prices by saving on their out of pocket costs. But medical tourists have few options if malpractice is suspected. For example, in Singapore and Malaysia, courts overseeing medical malpractice suits defer to the opinions of attending physicians to determine whether or not quality standards were upheld, essentially requiring a physician to 'confess' to malpractice in order for any compensatory damages to be awarded (Forgione 2007).

In developed nations, strict laws regulate the availability of health care, ensuring that practitioners do not provide treatments and procedures under false pretenses or without patients' informed consent. This is not the case in many developing nations, where informed consent has not been institutionalized to the same extent (MacReady 2009). One subcategory of medical tourism where these issues are of particular concern is stem cell tourism. Stem cell clinics in a number of low- and middle-income countries have promised improvements or even cures to a host of diseases, neurological disorders and even developmental disorders like Down Syndrome, that have not been proven, yet are attractive to medical tourists seeking a cure (MacReady 2009).

### **Advantages of Medical Tourism for the South**

The most powerful arguments favouring medical tourism from the destination country perspective fall under the umbrella heading of 'trickle down' economics: that the industry increases the inward flow of foreign currency which supports growth in various related (health, tourism, infrastructure) industries, improving aggregate economic development that eventually benefits the greater population. Among the strongest proponents of this view are Bookman and Bookman (2007), who argue that medical tourism allows low- and middle-income countries to tap into two global industries (tourism and health) to stimulate economic growth. They further argue that once the medical tourism industry matures, and public policies are enacted that guarantee appropriate taxation and dispersal of the industry's profits, the revenues it generates will be sufficient to heavily subsidize public health. Such cross-subsidization would, in theory, help pay for personnel, training, equipment and facilities in the public health systems of low- and

middle-income countries and further lower the cost of health care for those individuals who currently have little or no access.

The medical tourism industry stimulates foreign direct investment (FDI) in developing nations. This, it is argued, provides much needed development capital, facilitating health care infrastructure growth in developing countries, of benefit to the entire population in the long run (Smith, 2004). A number of providers of medical tourism including India, Thailand, Indonesia and Nepal, have lowered restrictions on FDI in recent years, hoping to encourage growth in the commercial health sector (Cortez 2008). A further perceived benefit of medical tourism is a reversal of the external brain drain of medical professionals to developed countries. Facilities which attract medical tourists offer more lucrative employment and career opportunities to domestic health human resources than previously available to them. For example, the Apollo group of facilities in India claims to have attracted more than 123 expatriate medical professionals to return from the global North with more competitive salaries and the opportunity to live and work in their country of origin, while still contributing to more advanced health care provision (Cortez 2008). However, this figure represents roughly 10 percent of the number of Indian-trained physicians entering US medical residencies each year (Mullan 2006), making it improbable that growth in the medical tourism sector will put much of a dent in the 'brain drain' of health workers from low- to high-income countries.

To a limited extent, medical tourism has allowed Southern countries with smaller populations to sustain and subsidize advanced medical care and technology, as well as maintain critical medical specialties with low domestic demand. For example, Singapore, (a middle- to high-income country) with a population of only 4.5 million, would find many sub-specialties to be expensive or difficult to sustain. Successful efforts to attract medical tourists in Singapore have ensured sufficient demand for subspecialties (Otley 2007).

### **Disadvantages and Risks of Medical Tourism for the South**

Criticisms of the North-South flow centre on issues of health equity and social justice, essentially questioning the bases of the claimed benefits. In response to assertions that revenues generated from medical tourism will gradually extend to the whole population, critics argue that the prime beneficiaries are limited to medical tourists and the enterprises that provide services. Policies and regulations which would ensure that revenues generated through medical tourism are taxed sufficiently and reinvested back into public health care are absent in most developing nations (Sengupta 2008). In India, for example, facilities that cater to medical tourists are given tax concessions, reduced import duties and subsidized land for property development. In return, facilities are obligated to provide a variable proportion of their services to the poor. However, these private facilities neither uphold these agreements, nor have they been held accountable for their failures to do so (Sengupta 2008). Any benefits purported to occur from medical tourism have yet to be realized by the majority of the population of developing countries.

A key criticism of medical tourism has been that public and private efforts to support the industry in developing countries have led governments to overlook pressing needs within public health care. In India, public expenditures on health care account for only 0.9 percent of the country's GDP. This very low level of funding has ensured inadequate and unsanitary health

facilities, high doctor to patient ratios and limited access to public health care (Sengupta 2008). Patients of necessity often turn to private health care for treatment. However, over 40 percent of admitted in-patients to private Indian hospitals were forced to sell personal possessions and other assets in order to subsidize their hospital stay (Sengupta 2008). In Thailand, the world-class medical care which is available to medical tourists remains financially out of reach of the majority of the Thai population (Saniotis 2007).

Critics further contend that public health care will be weakened by an internal brain drain, in which private facilities offering higher salaries and better working conditions weaken the supply of medical personnel in public health facilities. In Thailand, only 25,815 of 31,039 positions for medical practitioners in the public system were filled in 2005, as an increasing number were lured by the higher wages and more attractive settings available in private care (Saniotis 2007). For countries such as Ghana, Pakistan and South Africa, which hemorrhage approximately half of their medical graduates every year to external migration, the addition of internal brain drain from public to private health care is especially damaging (Cortez 2008). A further financial burden to the public is the cost of training medical practitioners who end up working in the medical tourism industry. In India, medical professionals are trained in public facilities, paying a fee of only USD 11.00 per month, the rest being publicly subsidized (Sengupta & Nundy 2005). The annual value of these public subsidies to the private sector where many physicians eventually work is estimated at over USD 100 million (Sengupta & Nundy 2005), some of which accrues to the medical tourism industry although precise estimates are not available (Sengupta 2008). This represents public funds which might otherwise have gone into improving public health care provision for the poor.

Finally, there are concerns that medical tourism imposes a specific Western biomedical model on developing nations, which may undermine culturally-specific and traditional approaches to healing and wellness (Saniotis 2007).

### **Ethics of Transplant Tourism**

Key destination countries in the transplant tourism industry include Colombia, India, Pakistan and the Philippines; although China, Bolivia, Brazil, Iraq, Israel, Moldova, Peru, South Africa and Turkey are also significant exporters of commercially donated organs (Turner 2008B, Shimazono 2007). In the Philippines, the government is an official partner in the industry. According to Turner, the official Philippine Medical Tourism program, a public-private partnership, has made considerable efforts to attract transplant tourists into the country's advanced medical facilities. Government officials travel internationally to meet with prospective 'consumers,' extolling the ease of obtaining kidneys in the Philippines (Turner 2008B). The number of tourist transplants in the Philippines in 2007 is estimated at 3,000.

There is little positive evidence or commentary regarding transplant tourism for a number of reasons. First, while a small minority of the organ trade involves the transfer of cadaver organs to individuals from the North, the majority of transplantations occur between live unrelated donors who are motivated by financial incentives and individuals from affluent countries (Budiani-Saberi 2009, Khamash 2008, Epstein 2009). While donors from the global South might technically consent to this transfer, the practice is deemed to be implicitly and explicitly coercive

towards vulnerable populations, which ethicists argue renders the trade morally indefensible (Noorani 2008, Scheper-Hughes 2003, Cohen 1999, Phadke 2002). Second, China recently admitted that two-thirds of its transplant organs come from executed prisoners. Given global concerns about the observation of human rights in China, the due process by which such imprisonment occurs in the first place comes into question (*Guardian Weekly* 04.09.09 p.2). Third, while transplant tourism and organ trafficking is illegal in the nations named above, a number of these governments are apparently complicit by a refusal to police the industry to any degree (Turner 2008). In Pakistan, where the transplant tourism industry is unofficially sanctioned, over 2,000 kidney transplants are performed each year on foreign patients (Naqvi 2008). Shimazono's review of the global transplant industry places the percentage of kidney transplants that occur exclusively in the illicit organ trade, of which transplant tourism is technically a part, at 5-10 percent (Shimazono 2007).

There is evidence that transplant tourism can compromise the health status of financially-motivated donors, and even undo the short-term financial benefits they receive. For example, a study of 239 donors in Pakistan found that only 12 percent of donors reported that their health status remained as good following the surgery as it had been before, while 62 percent reported feeling physically weaker and less able to work after surgery, and 36 percent reported feeling ill and unable to work at all (Naqvi 2007). Despite economic need being the motivation for donation, 85 percent reported no financial improvement after surgery due, in part, to their compromised health. Donors can also experience social ostracism: In Moldova, kidney donors are frequently labeled as poor marriage prospects as a result of compromised health arising from the organ donation. They are thought less likely to be able to provide for their families, and ex-communication from Orthodox churches and alienation within communities have also been reported (Scheper-Hughes 2002).

## **Conclusion**

In order to understand better the magnitude of the medical tourism trend, including a more accurate picture of the revenues generated both directly and indirectly, mechanisms to assess and track movement in the industry need to be developed and applied. Our current understanding of the scale of this trend is limited due to the lack of data and the fragmented nature of medical tourism itself. There are definitional issues that need clarification: for example, is it still medical tourism when a public or private health insurer in one country contracts to use the slack health facility capacity in another? There are potential trade treaty issues: health sector liberalization commitments under the World Trade Organization's General Agreement on Trade in Services could, on the one hand, increase the medical tourism trade while, on the other, pose a barrier to regulating the trade if a destination country changed its mind about the balance between its costs and benefits. While opinionated differences are often pronounced, proponents and skeptics of medical tourism both agree that, while still in its infancy, medical tourism is a sufficiently powerful economic force (going with the present grain of more open global commercial markets) that it should be monitored closely. Skeptics add that particular attention needs to be given to how it might be regulated for greater patient safety, ethical integrity and population health equity.

Many of the benefits and drawbacks of medical tourism discussed in this paper are provisionally based on the future growth of the industry. Research on such growth, if it is to account effectively for both gains and losses, and for ethics and equity, should include both quantitative and qualitative data. This is particularly true in the transplant tourism trade, where violations of the principles of social justice appear to be the most serious and where data gathering will prove the most difficult. In order to develop a comprehensive understanding of the implications of this industry, research must also differentiate between the different routes within medical tourism. While particular health equity concerns might exist from the North-South perspective, the opposite might in fact be true of the South-South route, where collaborative cross border care may help alleviate the burden of poor access to health care. The same applies to the North-North route, where health equity concerns are less pressing than in the North-South route.

The medical tourism industry, at least at this point in time, appears to be here to stay if not to grow. A more comprehensive understanding of the scope of this industry and its impacts on health care accessibility and quality of care in the global South may help to mitigate any potential damage while ensuring broader benefits-sharing. It can also serve to inform the decision-making of potential consumers and to improve the safety of future medical tourists.

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