

# The Emergent Medical Tourism: Advantages and Disadvantages of the Medical Treatments Abroad

Naïade Anido Freire

ISC Paris

22 Bd du Fort de Vaux, 75017 Paris, France

Tel: 33-1-405-3999 E-mail: n.freire@wanadoo.fr

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## Abstract

Nowadays, Medical Tourism (MT) greatly develops, has received public reputation and becomes a new Tourist niche. Nevertheless, MT is still a badly known and not sufficiently studied phenomenon. MT represents 2 % of the world Tourism and 4 % of the hospital admissions in the world: it generates a 100 billion € fallout engendered by 20 million of medical tourists (Mt). The MT is appealed to develop considering the growing life expectation and the technological and medical surgical progress. It is other globalization effect and come within the framework of Social Security (SS) deficits and of reorganization of the public and private health systems in many countries. The challenge will be how to improve the quality (of the care)/price (reduced) ratio without falling in the drift of a two-speed SS medicine. We discuss the advantages and drawbacks of the MT concerning the patients, the country suppliers and the receiving countries.

**Keywords:** Medical tourism, Health tourism, Tourism, Plastic surgery, Medical treatment abroad, Organ transplants

## 1. Introduction

During the XIXth and the first half of XXth centuries, the thermal tourism had a remarkable development and became accessible to the well-to-do social classes. In the second half of XXth s, this tourism of health develops and allows the middle classes to reach it. At the same time, the other forms of tourism related with the health appear, as the "anti-aging" medicine, the "Medical Spa" and the Medical Tourism (MT) allowing the access to new treatments, fruits of the remarkable scientific and technological development in the medical domain. This profusion of medical practices entailed confusion of genres. In this work we shall analyze the advantages and the disadvantages of the Medical Tourism, which is a still a badly known and little studied phenomenon.

We distinguish here the Health Tourism (HT), which takes care of the "well-being" (thermal baths, thalassotherapy and balneotherapy; INSEE, 2005), of the Medical Tourism (MT) where the "medical tourist" (Mt) plans alone or with his regular doctor, the medical or surgical protocol the most adapted to make abroad. Therefore, the MT concerns more health than tourism.

In spite of a lack of statistical data, we estimate that it represents about 2 % of the world Tourism (OMT/UNWTO 2009, 2011) and also, about 4 % of the hospital admissions in the world: it is marginal without being unimportant. With 100 billion € fallout engendered by 20 million of Mt in the world, the medical tourist activities will increase in the future, considering the growing of life expectation and of technological and medical surgical progress. The MT constitutes a dynamical economic factor for foreign countries influencing the local creation of employments related both to the tourism and to health services.

The MT is an additional effect of globalization and it places in the current context of the Social Security (SS) deficits and of the reorganization of the public and private health systems in many countries. It constitutes a challenge: how to improve the "quality of the care"/"reduced prices" without falling in the drift of a medicine and SS with a two-speed health system and how to avoid the derived ethical and legal problems?

The HT and the MT share the same general characteristics (short-term stay abroad) of the Tourism (Spörel & Täube, 2008) because tourists make a trip and a stay of duration going from an overnight stay to one year (Antczaket & Le Garrec, 2008), without considering their usual movements. In French Tourism statistics, general health is considered as one of tourist motivations: holidays, business, official missions, congresses and health. The MT is absent in this classification, but it must be recognized its specificity because the main motivation is medical and not touristic, as it is also the case of the business tourism for which the main motivation is business.

## 2. Definitions of HT and MT

In the HT (thermal baths, thalassotherapy and balneotherapy) we include all the noninvasive (external) treatments allowing an improvement of the health or the mind of the patient and/or the person having hydrotherapy. Most of the activities connected with this tourism concern the well-being of the patients, which contributes obviously to their good state of general health. Some of these activities have a role rather medical, as it is the case of the specific treatments for the asthmatics and the thalassotherapy to relieve the rheumatism.

On the other hand, in the MT we include all the invasive (Note 1) treatments necessary for the cure of heavy diseases as well as all the surgical operations independently of the searched objectives (curative, palliative or aesthetic care).

Nevertheless, we consider that all which concerns with a heavy pathology, where generally the vital prognosis of the patient is engaged, should be placed under the medical and surgical responsibility of the country of origin of the patient and not of foreign health services. For example: the mammary reconstructions (not aesthetic plastic surgery) made after a complete ablation of the breast due to a cancer, the reconstruction of the nose or a part of the face after an accident, a grave traumatism or a serious illness, should not concern from the domain of the MT.

On the contrary, the aesthetic plastic surgery and some supplementary post surgical stages, such as sessions of chemotherapy or of radiotherapy of some cancers or the heavy, long-term medical protocols or treatments demanding the presence of a team of experienced specialists, will be able to be realized abroad, in a MT frame.

Therefore, we propose the following operational definition of MT (Anido Freire, 2010a):

***Medical Tourism is the one who links two very different objectives: from one side, to benefit of medical interventions performed in foreign countries and from the other, and if possible, tourist visits of these foreign countries.***

The MT not only concerns the Western patients, as could be deduced from the announcements of the agencies (Note 2) of MT on Internet, but also, numerous patients around the world who move towards developed or underdeveloped countries, practising MT.

In some European studies, the MT is rather presented as a "mobility of patients" in the same way as the "mobility of workers" established inside the EU and as far as we consider that most of the foreign patients are coming from a country of the European Union (De Greef & Thomaes, 2006).

Otherwise, the MT is also presented "as a business of medical services" whose volume of transactions is counted in the balance of payments (CNUCED/UNCTAD, 1997b) of some countries, into the section "health-related travel". The United Nations (2002) defines the "health-related expenditure" as "total expenditure by those travelling for medical reasons".

Generally, these statistics do not take into account:

- medical spending of people travelling for other motives and which suddenly needs medical care during their stay abroad,
- spending of paramedical acts such as analyses and clinical examinations,
- telemedicine services,
- services brought occasionally by doctors during a journey abroad (OCDE/OECD, 2009, 2011).

The exports (Note 3) of a country concerning the "journeys for medical motives" (health-related transactions), result from payments made for local medical services, returned by not resident foreigners arrived at this country with the obvious intention to be treated. While the imports, result from spending of the nationals abroad when they go to other countries with these same intentions (OCDE/OECD, 2009, 2011).

The double label of "tourism" and "medical" implies that the MT should be studied at the same time from the statistics of the tourism and those of the health, to be able to cross check the available data. At present, the only available data are the ones established by private agencies of consultants entrusted, among others, to establish reports on the current socioeconomic problematic, and the beneficiaries of which can be other companies or governmental agencies which try to establish diagnoses or forecasts, or to make predictions according to their own interests.

On the other hand, the HT is statistically better defined because its activities are made, generally in well-identified establishments (thermal baths, thalassotherapy, etc.) and connected for a long time to the Ministry of the Tourism of every country. But at the moment, this type of activities becomes difficult to quantify because of the Spa installed in many establishments (hotels, leisure centres, etc.), not necessarily specialized in the health field, where either it is

relegated to the role of secondary or supplementary activity or to diversify and complete their principal activities (hotel business, leisure activities).

The importance of the MT is given by the number of patients going abroad for medical care: De Greef & Thomaes (2006) estimate this number in 19 millions a year. If we compare this number with the total number of tourists (908 millions) in the world (OMT/UNWTO, 2009, 2011), the MT would represent 2 % in number and 4 % of tourist spending.

The English statistics consider that the total number of medical tourists who enter the United Kingdom is equivalent to that of English people going out, even if their medical objectives are certainly different. In France the EVE Survey on the Foreign Visitors led at the airports of Paris (EVE 2009, Ile-de-France) establishes that 2 % of the foreign tourists have for motivation, reasons of health and medical care. If only 10 % of this last category of tourists come to France in the framework of the MT, the number of foreign Mt in France (receiving country) can be then estimated between 70 000 and 210 000 Mt or 0.1 % and 0.3 % of the total number of tourists (Antczaket & Le Garrec, 2008).

Because of the free circulation inside the EU, nobody control either the origin or the motivation of the European nationals on the frontiers. Furthermore, the medical data are not suitably centralized for allowing to know the number of foreigners admitted in hospital centres, within the framework of a MT or within the framework of agreements with, for example, the health services of the ancient colonies or within the framework of the legal and clandestine (Note 4) immigration. We know even less, the number of foreign patients being looked after in private hospitals or by private doctors. But generally, some studies neglect the volume of these activities in front of those of the public service.

We shall approach now the advantages and the disadvantages of the MT, at first for the medical tourists (Mt), then for the country supplier of these Mt and finally, for the receiving country of Mt.

### **3. Advantages of the MT for the Mt**

The Mt invokes different reasons and advantages to be treated abroad (Anido Freire, 2010a, 2010b).

(a) The cost proposed by the offer of the care abroad, plus those of the trip and the stay, is lower (Table 1) than the cost of only the care realized in the country of origin, taking into account the possible refunds of the health insurance.

(b) When the required treatment is not available, or not taken care, or is not partially covered by the health insurance of the country of origin, it is better to be treated abroad.

(c) The quality/price ratio is more favourable abroad (CNUCED/UNCTAD, 1997a): many foreign hospitals and foreign private clinics employ doctors trained and qualified in the western countries.

(d) The possibility of associating "body care" and "tourism" but also "to join the useful and unpleasant, with the pleasant" and allowing "to swallow the pill" more easily, because of the foreign exoticism which will allow the Mt to integrate the unpleasant memories with the pleasant ones.

(e) A change of scenery (change of place and maybe country, change of climate and culture) and the leisure activities associated with tourism, or a convalescence in a luxury hotel, would allow him to surmount more easily its sufferings before and after the application of the care, by compensating a thing with other one.

(f) Be able to "mask" an intervention, for example of plastic surgery, under a tourist journey, because the treatment concerns the domain of the intimacy; it thus allows to keep the "secret" of that intervention.

Insert Table 1 Here

According to the nationality of the medical tourist or the type of envisaged medical treatment, other additional benefits are possible:

- to reach quickly the care and not be forced to stay on a waiting list during some months in the country of origin,
- to do not frequent private hospitals or national hospitals having an important rate of light or serious infectious contagions (hospital-borne diseases),
- to be looked by the most famous doctors,
- to be able to follow the fashion of canons of beauty: plastic surgery (bosoms, face, belly, buttocks, etc.),
- to have the opportunity to reach these cares,
- to be proud to have managed to be looked abroad,

- to have the possibility to choose freely the most convenient moment to leave home to be treated abroad because it is not forced by a precise period of the year such as that of the holidays, related to the calendars of every country. Any temporary touristic migration is similar to that of the potential emigrant who is going to take freely the decision to emigrate (Anido, 1976; Anido & Freire, 1977).

If the journey takes place inside the Schengen area, there is a European legal frame that allows to benefit (UE/EU, 2008, 2011) from quality care in another European country (free circulation of European citizens), by choosing freely the clinic and the doctors to be looked. It specifies the rights of the patients and the duties (responsibilities) of the suppliers of health care, in a general frame of medical ethics. The European legislation established the equality of access, of treatment and care, of safety and appeal of the national and foreign patients having undergone damages. This legislation completes the national one of every country of the EU and suggests a greater surveillance of all the public and private actors in health fields.

These rights are framed by procedures (UE/EU, 2008, 2011) where are involved the Social Securities of both countries; the European patient has to respect them if he will claim to benefit from reimbursements (Note 5) of medical expenses as if he had stayed in his country of origin.

The generalization of the use of the European card (Note 6) of health insurance (in replacement of the form E112) and the establishment of a coordinated care, aim to simplify the access of the citizens of the 27 states member of the EU, Iceland, Liechtenstein, Norway and Switzerland to the health care services during their temporary visit abroad. Furthermore, the EU approved (Note 7) a legislative package, which established in May 2010 a modernized coordination of the national systems of Social Security to help the tourists, the mobile workers, the researchers of employment and the pensioners.

#### **4. Disadvantages of the MT for the Mt**

The attractive MT option that offers simultaneously tourism and health care, can nevertheless bring some health disadvantages (Anido Freire, 2010a, 2010b).

(a) Generally, "sun, sea and sand tourism" is not recommended after a surgery, but the Mt can make tourism before the planned intervention, especially when is accompanied by a relative.

(b) Any medical intervention is risked: the possible post-operative complications can increase the invoice if it is necessary to remain abroad to treat them. Complications can appear at the time of return to the country of origin, due to, among others, a traumatism or a secondary infection during the journey. Therefore, the care abroad can then turn out less profitable (Cohen, 2009) than a care made in the country of origin.

(c) The accompaniment of local paramedical activities (clinical analysis laboratories, centres of radiology, medical imaging and interpretation) can have a lower quality than that of local doctors. The problem is that it is only during the stay that the Mt can judge it.

(d) The medical follow-up cannot be maintained abroad by the medical team, which practiced the interventions, unless coming again. It is the case of the false teeth requiring at least five or six fittings to make sure of a correct result.

(e) The medical follow-up after the intervention has to continue in the country of origin, at his expenses or in a public institution that agrees to take care of him.

(f) It is not certain that the foreign doctor makes a commitment to repair the damages of his surgical act (Dawson & Pollard, 2007). Thus, the MT is interested in taking out an additional insurances, even though that will increase the final invoice, to make sure of the good progress during his hospital and touristic stay: any legal action against the private hospital will have to be made according to the legal codes of the foreign country.

(g) There is a possibility of contracting a hospital-borne disease due to the lack of asepsis or of hygiene in private and foreigners hospitals, or of contracting an endemic or seasonal disease (chikungunya, malaria, SRAS) in the foreign country and absent in the country of origin. Certainly, these are individual cases revealed by the written and oral media (Note 8).

#### **5. Advantages for the Country Supplier of Mt.**

(a) The development of the MT allowed the medical industry of developed countries to export their products and their know-how (installations, organization and pharmaceutical industry) towards the emergent countries that hope to develop MT, so contributing to the exports and to improve their balance of payments.

(b) The inter-European MT is going to grow and poles of speciality (dental, aesthetic or cardiac surgeries, cancer research, etc.) are being developed in some countries.

(c) The MT allows the health organizations to dispose of financial sources besides the public financing, especially when a foreign fortunate clientele is concerned.

(d) The western countries and in particular the EU will be confronted with the financial consequences of the ageing of the population. Perhaps, older patients will be faced either to accept a reduction of the medical services or to decide be looked abroad (out of the EU), to reduce their expenses and to relieve at the same time the national budget of the health.

(e) But it is as well possible that they lead to a development policy of the services of Geriatrics to satisfy, not only the needs of health of European patients but also of foreign seniors which in this way, can bring a complement to financing (Note 9) the health sector.

In this last case, we can even envisage general economic fallout, such as a global improvement of the labour market and more particularly of that of the health workers. De Greef & Thomaes (2006) estimate that Belgium would be able to create in the short-term, up to 6.000 jobs for the health workers and 380.000 jobs in related branches, in the case of a voluntary policy to develop the MT.

(f) In addition, the new technologies applied to the medical care (De Greef & Thomaes, 2006), in particular those centred on telemedicine (CNUCED/UNCTAD, 1997a), can constitute an important factor in the growth of MT, because they allow European doctors to follow remotely an already looked Mt, and they contribute to the good realization of surgeries abroad by doctors who will can, in case of emergency or complications, appeal the best specialists of the developed countries.

These new methods of work will be possible thanks to:

- the use of remote automated and remote-controlled medical equipments,
- the consultations and the surgical operations by videoconferencing,
- the remotely interpretation of medical analyses or radiological examinations (e.g. scanners),
- the TV-monitoring (permanent remote control of the health of the patient stayed at home).

## **6. Disadvantages for the Country Supplier of Mt.**

(a) Developed countries have financial losses because of the development of the MT and the HT out of borders. At the moment it is not the case of France where the financial losses are unimportant. For the European countries, as far as the MT and the HT take place inside the European Union, they contribute to redistribute a certain wealth among the various European partners.

(b) The MT and the HT towards the rich countries also developed what confirms the global aspect of these flows (Note 10) of Mt. At present, the financial contribution of the foreign patients does not compensate the financial losses of the nationals that leave abroad, because their number is much lower. Their growth is also less important as that of the nationals which leave towards the foreign countries.

(c) The growth of the MT towards foreign countries benefits from the image of the country as a pleasant touristic zone and brings an additional dimension to the classic tourism. Thus, the Tourism and the MT interact in a dynamic way by leaning the one on the other one to develop.

(d) Certainly there will be an increase of the international mobility (CNUCED/UNCTAD, 1997a, 1997b; Dumont & Zurn, 2007; Martin, 2007) of the medical and paramedical staff towards places where they can exercise their profession in good conditions (recognition of their abilities and profit of a good salary).

(e) The MT is going to reinforce the tendency to privilege very elaborated and hyper specialized hospital infrastructures, which already met the expectations of a minority of rich patients. The increase of the number of specialists in detriment of general practitioners (OMS/WHO 2008), risks to become more marked.

(f) The MT contributes to pandemics. The movement of persons and goods for commercial or touristic reasons caused in the world an acceleration of the transmission of diseases (SRAS, H1N1) and the hospital-borne infections (Walker et al., 2009). The development of the MT contributes to spread diseases but, the most redoubtable is the emergence of hospital-borne diseases (Note 11) and imported by Mt pursuing a treatment after a stay abroad, as has already noticed in some European hospital centres (EARSS, 2009).

(g) The MT and the HT towards the rich countries can stagnate, even decrease, if foreign Mt turns away towards other competitive foreign medical destinations having built their reputation over the years.

(h) In many OCDE/OECD countries the number of doctors for one thousand inhabitants decreased during these last years (CNUCED/UNCTAD 1997a; OCDE/OECD, 2008a, 2008b). The OCDE/OECD average of the number of doctors by one thousand inhabitants is 2.9 and in France this number decreased (3.4 in 2007; 3.2 in 2008) and will reach a plateau of 2.9 around the year 2030 (DRESS, 2002, 2009). To mitigate this situation, there has been to appeal to foreign doctors (Dumont & Zurn, 2007).

(i) There is a risk of the increase of prices of the medical acts as well as a decrease of their refund, what can lead to the appearance of a two-speed (Note 12) health: those who succeed in paying a journey abroad to be looked cheaper and quickly, and those who have no means to pay these care, neither where they live nor abroad, and that have to wait for a long time to reach health care.

(j) The MT reveals the incongruities and the injustices emanating from the legislation or the current practices of our health services. Some treatments or interventions are only accessible abroad because of the too constraining or traditionalist legislations of our developed countries. The very existence of the MT constitutes an alarm cry to not only make evolve the customs, but also to change laws in our countries. The official refusals undergone by the patients for some treatments are felt as an infringement on their freedom to be able to dispose freely of their body and to decide on the way of managing their intimacy and their life.

The most sensitive subjects, and which still raise legal problems, revolve around those concerning death (euthanasia), sex or that have a sexual connotation:

- abortion,
- artificial insemination,
- surrogate mothers,
- mammary implants,
- surgery of the penis,
- change of sex.

### **7. Advantages for the Receiving Country of Mt**

(a) The recent development of the MT led to that of the medical structures of the emergent countries, not only regarding infrastructures, medical equipments and instrumentation but also professional (setting up of numerous doctors, nurses, ambulance drivers and other paramedical jobs); quality of services, better salaries, improvement of the education and the local medical research. This allows to fix the medical staff on their country, by avoiding that doctors emigrate to exercise their job more suitably (CNUCED/UNCTAD, 1997a) and, at the same time, to facilitate the return of those who had left abroad. Additionally, MT can help to decrease the "brain drain" (Martin, 2007), at least in the medical domain. This is an additional asset to develop (Note 13) the MT.

(b) On the other hand, other countries will take advantage to improve and develop their health system with the financial godsend brought by the Mt, what will allow them to increase the number of the beneficiaries (CNUCED/UNCTAD, 1997a) of the health care of the country.

(c) Some countries will develop (Pitti, 2009) more specific medical activities (Martin, 2006) to become the best in these domains and, in this way, thwart the competition (CNUCED/UNCTAD, 1997c) of the other countries which will then be obliged to specialize in other medical sectors.

(d) They can benefit from the increase of the international mobility (Dumont & Zurn, 2007; Martin, 2007) of the medical and paramedical staff towards countries where they can exercise their profession in good conditions (recognition of their skills and profit of a good salary).

(e) Many emergent countries are betting on MT to boost regional and national tourism to increase the economic fallouts and ameliorate their labour market (hospitality, restaurants, transports, services, infrastructures, etc.).

### **8. Disadvantages for the Receiving Country of Mt**

(a) Numerous doctors of developing countries leave (CNUCED/UNCTAD, 1997a) the public hospitals to set up themselves privately or join a team of a private clinic, to earn better their living and have a better professional recognition.

Thus, the economic indicator "number of doctors or medical staff per capita" will not have any sense because its increase will not measure any more an improvement of the living conditions in the country, because these doctors will dedicate themselves to a foreign clientele and not to a local one.

(b) Risk of contribution to the traffic of organs. Poor people in under developed countries are tempted to sell their own organs in exchange of money to ameliorate their life.

(c) Risk to facilitate the forgery of medicines. The search for the reduction of the expenses of the interventions abroad could facilitate the demand, the production and the distribution of the forgery of medicines. The foreign patients could be tempted to buy them abroad, outside the official circuits (laboratories, pharmacies) to bring them in their country of origin.

(d) Risk of facilitating the marketing of equipments and lower-quality prostheses or of forgeries. To guarantee a lesser cost for the Mt, some foreign hospital centres could use this type of products.

## 9. Conclusions

Most people see in the MT only advantages (saving of time and money, excellence of the quality of the services of the professionals of health, the possibility of benefiting from a few hours or days of secondary touristic activities). Thus, they often forget that the MT can also have a lot of inconveniences. The first thing, which it is advisable to remind, is that the zero risk does not exist in General Medicine and even less in surgery, independently of the country where the intervention is realized.

The MT is rather a consequence of an inadequacy between the supply and demand of health care in a country, what leaves an opened door to offers resulting from the foreign countries and in this manner, joining the context established by globalization. Since MT is a personal and individual decision of the medical tourist, the MT can currently be considered neither as Exporting nor as outsourcing. Indeed, in this emerging niche of tourism there are no subcontracting or outsourcing/externalization, or bilateral agreements or contracts with health companies.

For countries suppliers and for the receiving countries of Mt, the MT can bring financial advantages and improvements of the National Health Service, allows market the sophisticated medical equipments and contributes to develop touristic industries. But it can also bring financial disadvantages (lesser spending of health in the country of origin) or risks of contribution to the traffic of organs or facilitate the forgery of medicines (receiving countries).

The MT is thus a complex phenomenon, at the moment difficult to delimit completely. The lack of reliable data and official statistics resulting from Ministries of Health and of Tourism, does not allow to estimate globally the importance of the MT.

The estimations of some analysts let think that the MT will develop more in the short term, while remaining marginal as well, regarding the global volume of the Tourism (2 %) and the volume of care administered in hospital centres (4 %).

We consider that the EU should quickly react in front of this specific "migratory" phenomenon, develop a better coordination of the policies of care management and welcome of the patients and then, take advantage of this financial godsend to strengthen the excellence of some European hospital centres.

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## Notes

Note 1. The "invasive" qualifier is used here in the sense of the introduction of an external agent in the body to carry out a care impossible to be realized with external treatments ("not invasive").

Note 2. <http://agences-voyages.blogspot.com/2007/01/le-tourisme-medical-un-phenomene.html>, 03/01/2007.

Note 3. "The experts recognized that the movement of consumers was, for developing countries, a mode of delivery offering considerable possibilities to the export" (ii. *Questions relatives au traitement de patients étrangers*, CNUCED/UNCTAD, 1997b).

Note 4. The number of patients, being clandestine immigrants and that benefit of the AME (Medical care of the State) and being treated in French hospitals, are estimated to be 200 000. These patients cannot reach the CMU ("Couverture Médicale Universelle", Free universal health care).

Note 5. "Prise en charge des soins reçus hors de France: Mon institution d'assurance maladie prend-elle en charge les dépenses correspondant à mes soins de santé dans un autre État européen ?", Coverage of the care received outside France: does my institution of health insurance take care the spending corresponding to my health care in another European State? ([http://www.securite-sociale.fr/textes/maladie/etranger/rembetranger\\_ue.htm](http://www.securite-sociale.fr/textes/maladie/etranger/rembetranger_ue.htm)).

Note 6. European Commission, "Emploi, affaires sociales et égalité des chances" (<http://ec.europa.eu/social/main.jsp?catId=559&langId=fr>).

Note 7. "Soins programmés" (<http://ec.europa.eu/social/main.jsp?catId=569&langId=fr>) 30/07/2009 (m09\_353\_fr.pdf).

Note 8. Le tourisme médical: patient ou client ? (Medical Tourism: patient or customer ?) Un film inquiétant sur les dérives de la médecine business (<http://www.vodeo.tv/19-35-3587-le-tourisme-medical-patient-ou-client--.html>), France 5 TV, Mondialisation et santé: Le tourisme médical (<http://www.telleestmatele.com/article-29877805.htm>).

Note 9. Supposing that the average spending of Tm is of the order of 7.000 € (Deloitte report), the French health services could receive a minimum of 10 000 Tm with a 70 million € budget. Other countries have already developed official agencies to attract Tm (CNUCED/UNCTAD, 1997a).

Note 10. A well-known phenomenon in Human Migrations where all the countries behave as suppliers and receiving of migrants (Anido & Freire, 1977).

Note 11. Such as those provoked by: *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Escherichia coli*, *Enterococcus faecium*, *Enterococcus faecalis*, *Streptococcus pneumoniae* et *Pseudomonas aeruginosa*, germs that become resistant to certain antibiotics.

Note 12. "Un patient britannique nécessitant un pontage coronarien avait deux options: attendre son tour pendant six mois ou déboursier 35.000 US\$ afin d'être opéré immédiatement." ("A British patient requiring a coronary bypass had two options: wait for his turn during six months or pay out \$35.000 U to be operated at once.") *Tourisme cardiaque*, *Agence Science-Presse*, 11/02/2005 (<http://www.sciencepresse.qc.ca/archives/2005/cap0702057.html>);

"la perspective d'une médecine à deux vitesses aurait de fortes chances de se concrétiser", ("The prospect of a two-speed medicine would have strong chances to become a reality") *Suisse: Le tourisme médical est lancé*, 28 April 2006, *Journal du Jura*, <http://www.veille.ma/+Suisse-Le-tourisme-medical-est+.html>.

Note 13. Portugal deve apostar no turismo médico (Portugal must focus on medical tourism), 30 Oct. 2009, *Jornal de Notícias*, Lisbon (<http://www.portugalvivo.com/spip.php?article4593>).

Table 1. Selective Destinations of the MT for US Medical Tourists and Possible Savings (%) due to the Care Made Abroad (2007/2008 prices with a 30 % relative dispersion)

Type of surgical interventions	Cost in US (USD)	Savings abroad (%)	Medical Tourism Destinations	Source
Dental treatments	1 000 to 5 000	75	Costa Rica, Mexico, India, Hungary, Tunisia, Thailand	a
Correction of myopia		70	Istanbul (Turkey)	b
Bypass heart	130 000	90	India, Thailand, Malaysia	c
Replacement cardiac valve	160 000	85	Singapore	
Vertebral fusion	62 000			
Angioplasty	57 000	75 - 80	India, Malaysia, Singapore, Thailand	
Operations of the hip	43 000	80	India, Malaysia	
Operations of the knee	40 000	70	Singapore, Thailand	
Hysterectomy	20 000	85	India, Malaysia	
		75	Singapore, Thailand	
Transplant of marrow	250 000	90	India	d
Prostatectomy	4 600 £ UK	50	Tunisia	e

a: <http://tourisme-dentaire-info.com>

b: [http://www.novacorporus.fr/fr\\_fr/clinique-ophtalmologique-vision-laser-yeux-operation-lasik-vue-turquie.html?Itemid=251](http://www.novacorporus.fr/fr_fr/clinique-ophtalmologique-vision-laser-yeux-operation-lasik-vue-turquie.html?Itemid=251)

c: Woodman (2008) and *ABILITY Magazine* (<http://www.abilitymagazine.com/pbb.html>).

d: Pitti (2009).

e: <http://www.telegraph.co.uk/health/6030188/Medical-Treatment-Abroad-Is-it-a-f...>

(Medical Treatment Abroad: Is it a false economy? by Tammy Cohen).