Zagreb International Review of Economics & Business, Vol. 14, No. 2, pp. 107-134, 2011

ISSN 1331-5609; UDC: 33+65

Medical Tourism Development in Croatia

Oliver Kesar [*]
Katarina Rimac [**]

Abstract: This article is primarily focused on medical tourism, one of the most interesting aspects of health tourism development, originally conceived as a marketing tool for attracting international demand for health care services. The purpose of this article is to summarize the rationale of promoting medical tourism development in developing countries like Croatia, and to assess the opportunities and constraints of such product development in present socio-economic conditions. The theoretical background and discussion presented in this article were done with reference to respective publications and web-sites. Also, authors have performed a SWOT analysis and proposed some policy recommendations for further development of medical tourism in Croatia.

Keywords: *medical tourism, health tourism, health care markets, international tourism, Croatia*

JEL Classification: *L83, I11*

Introduction

Maintaining a good health condition is one of the most common reasons for people to travel across the world. No matter if one is looking for a relaxing weekend in nearby spa resort due to health prevention, complete medical treatment in distant large city hospital, or esthetical plastic surgery in some specialized clinic abroad, he or she basically needs services of two large systems – health care and tourism. Services of the two systems refer to a derived system that represents a special interest tourism so called health tourism.

The roots of travelling for health, which contemporary theory and practice of tourism development identify as 'health tourism', can be traced in ancient travellers'

[*] Oliver Kesar is at Faculty of Economics and Business, University of Zagreb, Zagreb, Croatia.
[**] Katarina Rimac is graduate student at Faculty of Economics and Business, University of Zagreb, Zagreb, Croatia

attempts to find reliable and sufficient source of food, better living environment, religious forces for 'healing', etc. Since then, all these factors have been playing the same important role in maintaining health and well-being. The ancient Greeks went to Epidauria because of the health-giving god Asklepios, as well as ancient Romans that went to thermal baths because warm water is good for the joints (Reisman, 2010). Both can be considered first real 'health travellers' who were travelling for health reasons. The common behaviour patterns of ancient and modern health travellers seeking better environment with positive impacts on their health, has not changed much since then. However, the magnitude of such movements dramatically changed over the last two decades. General raise of living standards, ageing of the population, globalization and liberalization of international trade in services represent the main catalysts for worldwide expansion of health tourism development. Empirical research proves that health care service providing, distribution of health care products, and the increase of demand for health care treatments, serve as a catalyst for the globalization of health tourism movements, which generates significant economic effects such as investments, income, employment, tax revenues, and export earnings for host countries.

Owing to demographic (such as age and sex), social (such as ethnicity and citizenship) and economic (such as occupation and income) characteristics of population in developed countries, but also various constraints of their health care systems, the demand for international health care services is constantly growing. According to Keckley and Underwood (2008) and the Medical Tourism Association recession adjusted forecast (Edelheit, 2011), it is estimated that in 2012 nearly 1.6 million Americans will travel outside the USA to seek some medical treatment. To meet such demand, many developing countries have shown willingness and readiness to compete in the international health care market by providing high quality medical services comparable to those available in developed countries. In that context, many countries across the world have already adapted their health care systems and provide 'first-class services at Third World prices' to international demand primarily from the Western European countries, USA, Australia, and Japan.

According to Gahlinger (2008), there are over 50 countries in the world, predominantly developing countries such as Thailand, India, Singapore, Malaysia, Cuba, Tunisia, Turkey, Lithuania, Poland, Hungary, and many others that have identified medical tourism as a national industry and thoroughly adapted their health care systems to be able to receive international consumers. However, it must be noted that medical accreditation, certification and other service quality measures vary widely among countries. Apart from the health care system adjustment, all mentioned countries had to go through significant reforms of supporting administrative and legal systems, but also a considerable improvement of custom-made tourism services for medical tourists from abroad.

Regardless of the resources currently available in Croatia for an immediate medical tourism valorisation, the government is rather passive and still looking for the most suitable model of the health care and legal system adjustment in order to prepare for the open-market operations. Aware of the problems associated with health care delivery in the public health care system, government tries to avoid possible negative community reaction regarding the use of public health care resources for highly profit-oriented projects in the field of medical tourism. The rapid increase of non-resident health care service consumers in a destination often raises concerns among local users that the best doctors will go away from public health care system into the private ones due to better working conditions and higher wages. Apart from the public health care system where the government subsidizes health care costs for all Croatian citizens, the development of privately funded health care system in Croatia can be considered to be in its introductory phase. Because of that, medical tourism development in Croatia still heavily depends on the public resources and associated regulations. In order to provide a clear insight into the nature and peculiarities of medical tourism development, authors use theoretical and empirical approaches to the conceptualization of medical tourism development in Croatia, with special reference to analysis of its market position and introduction of necessary policy adjustments to overcome weaknesses and minimize threats.

Literature Review

Apart from the early empirical studies of health tourism (IUTO, 1973; Goodrich and Goodrich 1987; Goeldner, 1989), a set of comprehensive textbooks and book chapters that systematically describe concepts and opportunities of health tourism development has emerged during 1990s and expanded rapidly since 2000. Such contributions were provided by Hall (1992, 2003), Goodrich (1993, 1994), Smith and Jenner (2000), Medlik (2003), Leavy and Bergel (2003), Schobersberger *et al*. (2004), Messerli and Oyama (2004), Mair (2005), Bookman and Bookman (2007), Cohen and Bodeker (2008), Bushell and Sheldon (2009), Erfurt-Cooper and Cooper (2009), D'Angelo (2009), Smith and Puczko (2009), Reisman (2010), Graf (2011), etc. Among articles published in medical, economic, and tourism related scientific journals there are also many valuable contributions related to health tourism. One of the first scientific articles in this field was written by Goodrich and Goodrich (1987) who developed early definitions of health tourism and provided first insights into health related tourism development. While there was a series of conceptual articles published in this area, the most important are provided by Goeldner (1989), Goodrich (1993), Smith and Jenner (2000), Garcia-Altes (2005), and Carrera and Bridges (2006). A number of other articles related to health tourism development have referred to at least one of the previously mentioned contributions.

Apart from the health tourism as a broader concept, textbooks, chapters, guides, and scientific journal articles related to medical tourism, considered as essential readings, has been provided by Hunter-Jones (2005), Hancock (2006), Eggertson (2006), Carrera and Bridges (2006), De Arellano (2007), Grace (2007), Bramstedt and Xu (2007), Gahlinger (2008), Woodman (2008), Ehrbeck *et al*. (2008), Vijaya (2010), Hopkins *et al*. (2010), Lunt and Carrera (2010), Connell (2011), Jagyasi (2011), Hall (2011), Hall and James (2011), Mainil *et al*. (2011), Boga and Weiermair (2011), Menvielle *et al*. (2011), etc. Beside these articles, there are also many other valuable contributions applied to a specific country and performed as a case-study analysis, such as for Malaysia (Chee, 2007), India (Gupta, 2008; Hazarika, 2009), Thailand (Wilson, 2010), Tunisia (Lautier, 2008), Carribean (Chambers and McIntosh, 2008), Hungary (Österle *et al*., 2009), Costa Rica (Warf, 2010), Singapore (Lee, 2010), and others.

Regarding the web sites that offer medical tourism assistance by linking global tourism demand and local medical supply, an open-access literature reveals three valuable articles published in scientific journals that analyze contents of medical tourism web sites, provided by Eysenbach *et al*. (2002), Cormany and Baloglu (2010), and Lunt and Carrera (2011). The main conclusion was that medical travellers increasingly use so called 'medical tourism facilitators', who perform a variety of trip coordination responsibilities for medical travellers. Numerous medical tourism web sites, of which many of them have their official profiles in social virtual networks (such as Facebook, Twitter, LinkedIn, and MySpace), usually serve as virtual medical tourism facilitators and intermediators that operate at different geographical scale, global (e.g. www.medicaltourismassociation.com – Medical Tourism Association), country (e.g. www.treatmentabroad.com – Treatment Abroad, UK) or regional level (e.g. www.bajamed.org – Baja California Medical Tourism Association).

An active participation in the market research has been provided also by governments such as Turkish Ministry of Health, General Directorate of Primary Health Care Services report on Medical Tourism (see Aydin and Yilmaz, 2010), international organizations such as Deloitte (see Keckley and Coughlin, 2011), and professional associations like Medical Tourism Association that serves as a global non-profit trade association (see Edelheit, 2011). A significant contribution to the market research of demand for health care services has been provided by the Deloitte Center for Health Solutions (see Keckley and Underwood, 2008). So far, Deloitte has conducted four annual surveys of health care consumers in order to assess their behaviour, attitudes and unmet needs, and to quantify year-to-year changes.

In Croatian literature, valuable contributions in the field of health tourism have been provided by Carić (1994), Hitrec (1996), Ivanišević (1999, 2003, 2010), Pančić-Kombol (2000), Avelini-Holjevac (2001), Kušen (2002, 2006), Hofmann (2004), Kušen and Mezak (2005), Radovčić (2010), etc. To the best of our knowledge, there are only a few modest contributions in the literature (mostly conference proceedin-

gs) that deal with challenges and barriers for medical tourism development in Croatia. Nevertheless, the scientific recognition of medical tourism development impacts on Croatia's economy is still in its early stage.

Research Approach and Theoretical Background

Theory of medicine and other related scientific fields, namely psychology, sociology, anthropology or kinesiology, define *human health* in many different ways. This variety is a result of different approaches to scientific research as well as multilayered endogenous and exogenous factors that affect people's health.

The modern concept of health covers more than the absence of illness and disease, but also the capacity to realize aspirations and access opportunities for human fulfilment (Raphael *et al.*, 2006). A broader perspective has been taken by Brooker (2008) in which health is defined from both negative and positive viewpoints. According to a negative definition health is "a state in which no evidence of illness, disease, injury or disability is found. More positively, in 1948 the World Health Organization (WHO) defined health as a state of complete mental, physical and social well-being, not merely the absence of disease or infirmity" (p. 216). However, development of *holistic approach* has led to the broadening of definitions of health by including the 3E components – emotional, environmental and economic, as well as individuals' social and psychological resources, and their physical capacities that also determine the state of the people's health. Edlin and Golanty (1998) describe a holistic approach to health as one in which people attempt to balance the interrelated physical, social, psychological, emotional, spiritual and environmental factors that influence their lives in order to achieve a harmonious existence. Each element is assumed to make an equally important contribution to health, while quality of one element has an effect on the others. The holistic medicine is concerned with a creation and maintenance of health, not the cure of illness, and this concept is the driving force behind the growing demand for additional, non-conventional health care services.

Without any doubt, people are more aware and concerned about their health as never before. Such behaviour appears to be reflection of many *negative impacts* that affect people's health such as living in an area of cold and humid climate or large cities with polluted environment, stress, smoking, bad nutrition, alcohol, lack of physical activity, obesity, and many others. In addition, aggressive advertising campaigns by pharmaceutical companies and mass media dissemination of information related to various diseases, pathologies, cures and medical treatments, also play an important role in creating public opinion. Smith and Puczko (2009) emphasize the pressure of media in creating a culture of self-obsession and poor self-esteem, often to a degree that people would do anything to enhance their looks.

Due to negative impacts on people's health, supported by influence of mass media, need for health care services is rapidly growing, particularly in developed countries where demand for such services frequently exceeds supply (e.g. beds, equipment, medicaments and staff) of a public *health care system*. As long as financial resources of public health care systems are limited and in decline, the management of public health care capacities is recognized as a complex task and takes a lot of effort, time, and money to harmonize demand and supply in the short-run. Such supply side constraints generates surplus of demand for health care services that needs to be offset by private health care systems.

Apart from the costs of services covered by the public funding system, services provided by private health care system are usually paid by consumers or by health insurance companies. The major issue with private health care systems in developed countries is that they have several times higher prices of services than one provided by public health care system. For that reasons, to travel abroad to undergo some medical treatment of approximately the same quality, but much lower price is a good and affordable way of solving a health problem or improving health condition. To fulfil the expectations of such specific demand, many developing countries have shown an enthusiasm in creating new ideas and projects devoted to development of health tourism programs and facilities where they had to harmonize activities of several different systems – health care, tourism, financial, public, business, educational, and legal (see Figure 1 in Appendix). Having in mind all necessary elements that health tourism product is composed of, managing such complex organization seems to be difficult and knowledge demanding, while its organizational structure has to be kept flexible and adaptive to up-to-date global economic, social, and demographic trends at all times.

As any survey of the tourism literature will quickly reveal, there are many definitions of health tourism. Early concept of health tourism theory was introduced back in 1973 by the International Union of Tourism Organizations (IUTO, 1973) whose definition of health tourism refers to "the provision of health facilities utilizing the natural resources of the country, in particular mineral water and climate" (p. 7). The IUTO's definition is still the most cited and forms the basis from which most other definitions have been developed subsequently. Namely, Goodrich and Goodrich (1987) took broader perspective of initial definition by adding variety of services provided, so health tourism is recognized as "an attempt on the part of a tourist facility or destination to attract tourists by deliberately promoting its health-care services and facilities, in addition to its regular amenities. These health-care services may include medical examinations by qualified doctors and nurses at the resort or hotel, special diets, acupuncture, transvital injections, vitamin-complex intakes, special medical treatments for various diseases such as arthritis, and herbal remedies" (p. 217). Further analysis of related literature leads to Medlik (2003), who explained that "health tourism implies trips and visits to health resorts and other destinations whose main

purpose is health treatment, ranging from therapeutic treatments for various diseases to fitness and relaxation programs", but also has included some specialized facilities designed and used for health tourism service providing like "hotels, cruise lines and establishments as health farms" (p. 83).

The initial concept of health tourism product development has considerably changed over time as demand for such product was changing. Along with the evolution of special interest tourism, health tourism product has also evolved into several main concepts of health-care service providing, supported by many derived products designed for each narrow group of consumers. As long as visitors find it difficult to anticipate and decide what kind of services they are likely to experience at a health tourism destination, labelling and marketing are extremely important. In order to approach to the scope and meaning of medical tourism, authors use health tourism product components scheme (see Figure 2 in Appendix) provided by Smith and Puczko (2009). The figure shows a wide spectrum of specialized health tourism products ranging from the simplest wellness services to the complex dental treatments or cosmetic surgeries. Additional value of the given scheme is in overview of facilities used for health care service providing that consumers can choose according to their individual needs and financial capacities.

Within the general conceptual framework of health tourism development, *medical tourism* represents one of its main aspects that need further research and assessment from both theoretical and empirical points of view. A critical review of available literature has identified widespread misuse of the term health tourism, very often used to elaborate all medical tourism topics, and vice versa (e.g. Garcia-Altes, 2005). The fact is that due to a lack of reliable statistical data and overlapping theory and practice, most of the sub-products of health tourism usually remain under the wider concept. However, significant economic and social benefits that arise from medical tourism development seem rational to narrow the research area and assess its market opportunities and development advantages.

Apart from the health tourism development patterns during the 19th and 20th centuries, primarily focused on spa relaxation often criticized as hedonistic pursuit of pleasure, the emergence of medical tourism goes far beyond, in terms of pleasure and beneficial outcomes. Smith and Puczko (2009) defined medical tourism as "travel to destinations to undergo medical treatments such as surgery or other specialist interventions" (p. 101). According to Connell's (2006) early elaboration, the rise of medical tourism deliberately linked tourism to direct medical intervention, and outcomes are expected to be substantial and long term for both tourists and destinations, principally in developing countries.

Summarized by Horowitz *et al*. (2007), *medical intervention* includes a wide spectrum of health care services like cosmetic surgery (breast augmentation, mastopexy, breast reduction, facelift, blepharoplasty, liposuction, body contouring), dentistry (cosmetic dentistry, dental reconstruction, prosthodontics), cardiology and

cardiac surgery (coronary artery bypass, cardiac valve replacement or reconstruction, percutaneous coronary angioplasty, stenting, stem cell therapy for heart failure), orthopaedic surgery and spine surgery (hip replacement or resurfacing, knee replacement, arthroscopy, joint reconstruction, laminectomy, spinal decompression, disk space reconstruction, disk replacement), bariatric surgery (gastric bypass, laparoscopic adjustable gastric banding, body contouring subsequent to massive weight loss), reproductive system (in vitro fertilization, hysterectomy, prostatectomy, transurethral resection, gender reassignment procedures), organ and tissue transplantation solid organ transplantation – renal and hepatic, bone marrow transplantation, stem cell therapy – heart failure and neurologic diseases), and other services (like LASIK eye surgery, general medical evaluation or check-up, wide range of diagnostic studies).

International demand for such medical interventions has grown dramatically in recent years primarily because of the high costs of treatment in rich countries, long waiting lists, the relative affordability of international air travel and favourable exchange rates, and the ageing of often affluent post-war baby-boom generation (Connell, 2006). For example, in 2011 about 52% of health care service consumers in France, 45% in Germany, and 36% in the UK expressed their disappointment with long waiting lists in their countries of residence (Keckley and Coughlin, 2011). A more in-depth-analysis performed by Jagyasi (2010) identified and ranked ten main reasons why patients decide to travel abroad for medical treatment (see Table 1 in Appendix).

Apart from demand-side trends and decision making process of conducting international travel for medical care, Connell (2006) has identified several general facts that facilitated the growth of medical tourism demand:

- the Internet,
- emergence of new companies that are not health specialists, but brokers between international patients and hospital networks,
- rapid improvement of health care systems in developing countries,
- adoption of new technologies,
- expansion of marketing health care services,
- gradual movement of medical care from the public sector to the private sector
- and finally, growing popularity of cosmetic and dental surgery.

In contrast to above mentioned encouraging factors, Jagyasi (2010) reveals certain challenges to the medical tourism system that serve as obstacles for tourists to decide whether to travel abroad for medical treatment or not. The top five obstacles are as follows: access to reliable information, too many newcomers jumping on medical bandwagon, inexperienced or understanding the industry, lack pre- and post-operative care arrangements, complicated laws and legal procedures, and finally, the lack of support systems by governments.

Along with diversification of health tourism products into many specialized sub-products (e.g. medical tourism and others), there is evidence that medical tourism also underwent specialization in, so far, two directions: *surgical tourism* and *therapeutic tourism* (Smith and Puczko, 2009), which seems rational and acceptable approach. However, within the framework of these two, many authors elaborate findings on variety of medical 'tourisms' by attributing them to terms of specialized treatments such as dental tourism (Turner, 2008; Österle *et al*., 2009), reproductive (Spar, 2005; Inhorn and Patrizio, 2009) or fertility tourism (Bergmann, 2011), abortion tourism (Lunt and Carrera, 2010), arthroplasty tourism (Cheung and Wilson, 2007), transplant tourism (Canales *et al*., 2006; Rhodes and Schiano, 2010), apheresis tourism (Srivastava, 2006), stem cell tourism (Lindvall and Hyun, 2009; Devereaux and Loring 2010), and many others. For instance, interesting trends in specialized subset of dental tourism development is provided by Levett (2005) who notes that dental tourism phenomenon in Thailand has emerged as the medical hub of South-East Asia. The trend is the unlikely 'child of new global realities': the fallout of terrorism, the Asian economic downturn, internet access to price information, and globalization of health services. Another example discovers the morbid side of medical tourism so called transplant tourism in which patients with sufficient resources in need of organs travel from one country to another to purchase a kidney (or liver) mainly from a poor person, formally called commercial living donor (Budiani-Saberi and Delmonico, 2008).

According to historical development and available resources, health tourism development in Croatia can be observed in 4 different segments ranked in proportion to the size of demand for such facilities:

1. sanatorium/hospital 'tourism',
2. spa/thermal/thalassotherapy tourism,
3. wellness tourism, and
4. medical tourism.

The sanatorium or hospital 'tourism' refers to stay of Croatian citizens in sanatoriums (5 in total) and special hospitals for medical rehabilitation (12 in total) built around thermal and mineral water springs for medical treatments. Costs are paid by the government on the basis of obligatory health insurance program (the Croatian Institute for Health Insurance). Although the theory of tourism statistics does not treat such stay (of residents) as a 'real tourism stay', because it is an integral part of medical treatment prescribed by their doctors from the public health care system, in practice all these stays are treated equally as tourism related. With regard to the services provided in those facilities, much of diagnostics and medical treatments are focused on physical rehabilitation after surgeries, treatments of skin diseases, programs of pain relief caused by rheumatic or ischemic disease, neurological or cardio-vascular treatments, etc.

The spa and thermal tourism in Croatia is the oldest aspect of health tourism development based on the use of thermal, mineral or sea water (thalassotherapy) for health prevention activities. The length of stay and consumers' participation in some organized activities depend directly on consumers' financial capacities to cover costs of accommodation, food, and services used for health care. Such facilities (11 in total) usually share the main resources (thermal water springs or staff) with previously mentioned special hospitals and are open to both resident and non-resident users.

The wellness tourism is relatively new health tourism product in Croatia, fully adapted to the needs of consumers looking for various health preventive programs and services in form of stress relief and relaxation. The initial phase of wellness tourism development in Croatia was based on the existing spa and thermal facilities, but the rapid growth of demand for such programs and services has led to expansion in number of privately owned wellness centres designed as one of the main hotel products (see Kušen and Mezak, 2005). Furthermore, Andrijašević and Bartoluci (2007) discuss opportunities of wellness tourism development in existing centres of health tourism together with the programs of rehabilitation and health maintenance, in mountain centres together with recreational programs, high-class hotels as recreational and beauty programs, and hotel centres along the coast as a complement to the recreational programs, active rest or preservation of health. This list can be expanded by city wellness centres that are completely independent from any of above mentioned health care or accommodation facility. For the quantitative appraisal of wellness tourism offer in Croatia, wellness centres registered by the national tourist organization (Croatian National Tourist Board, 2011) were analyzed. According to data available, the analysis of 73 wellness centres in Croatia has revealed that 92% of wellness centres were incorporated in hotel facilities, 22% of them have 5-stars category, 60% of them have 4-stars category, 19% of them operate in inland tourism destinations, while the rest of 81% are located along the Adriatic coast. It must be noted that low categorized wellness centres have limited capacities and spectrum of services, which usually means usage of pool (or whirlpool), sauna and standard massage treatment.

Finally, the least developed segment of the health tourism product in Croatia is medical tourism. There are many reasons for that market failure and some of them will be discussed in the following sections. The results of the benchmark analysis show that Croatia's medical tourism product is still in its introductory phase, comparing to the world's best practices in this field.

Methodology and Data

Having in mind that medical tourism development is relatively new trend in Croatia that yet needs to be widely examined and discussed from both scientific and profes-

sional standpoints, the application of various analytical techniques is restricted to case study and static economic analyses. Therefore, in this article mainly a desk research is conducted based on the analysis of accessible literature and statistical data obtained from secondary sources. In that sense, analytical approach and data used for this research can be considered as acceptable and in line with the most of scientific contributions published as country/destination profile case studies and participation of those countries/destinations in the global medical tourism market.

Availability, reliability and consistency of statistical data on, for instance, the size of demand for medical treatments, its expenditure patterns, required health care services, or level of consumers' satisfaction, etc., represent significant constraints for more in-depth and accurate analysis in this field. Collecting statistical data for the research of medical tourism market usually refers to author's personal contacts with representatives of professional associations, public authorities and public administration, principal physician, clinics' top management, etc. Having in mind the doctrine of professional medical discretion, statistical data on the demand-side of the market are considered strictly confidential, so distribution of such data for further scientific research represents one of the main limitations and implies necessary assessments. Statistical data on the supply-side of the market are to some extent more accessible thanks to the professional registers of medical facilities, services that they provide, and medical staff. The largest sources of information are actually web sites presenting the spectrum of services provided by the specialized clinics and practices, including information on prices, terms of medical service providing, accommodation, and other related information.

The main problem of statistical reporting in this field of research lies in lack of proper understanding of the nature and components that medical tourism product interconnects. Thus, the comparative analysis of countries, destinations and medical tourism service providers, done in this research can only be informative. Having in mind that medical tourism development in Croatia is in its early stages, statistical data related to the supply-side of the market is dispersed, but partially available in statistic reports and register records, while comprehensive and reliable demand-side statistics is still inaccessible.

All previously stated can be confirmed by Aydin and Yilmaz (2010) who argued in the report on Turkey's medical tourism development that existing data in this field require a serious examination for their reliability. The data is full of serious shortcomings, figures and numbers, which cannot be based upon anything and some even contain information and documents disclaiming each other. For instance, a study conducted in 2007 (Keckley and Underwood, 2008) revealed that the number of Americans travelled abroad for medical treatment was 750,000 and it was projected that this figure would increase up to 6 million in 2010. However, Aydin and Yilmaz (2010) argue that today it is obvious that this assessment has not been realized, that we have been left much behind and the figures can be expressed only in the hundreds

of thousands. It was also estimated that the annual revenue of health tourism input is US$ 60 billion in that period, and this will increase by around 20% and reach US$ 100 billion in 2010. It can be seen that this figure is only near US$ 40 billion. Looking at the rapid evolution in the field of health tourism, it seems necessary for scientific world to step in for this phenomenon and put the issue on clear conceptual foundations.

Medical Tourism in Croatia

Croatia has a long history of using natural resources for health tourism. This refers mainly to traditional use of thermal, mineral or sea water or mud in special hospital facilities for medical rehabilitation, as well as in the spa resorts and thalassotherapy facilities for health prevention programs and sport recreational activities. Other contemporary aspects of health tourism, such as holistic wellness or medical tourism, are relatively new in Croatia and therefore have not yet gained widespread use or scientific recognition.

Historical Background

Although thermal and mineral water springs on the territory of today's Croatia were recognized back in 4th century during the Roman times (e.g. Aquae Iasae nearby town of Varaždin in the northern part of Croatia), extensive construction of the health care facilities around hot springs began only at the turn from the 18th to the 19th century (in destinations such as Daruvar 1765, Stubičke toplice 1776, Krapinske toplice 1779, Topusko 1818, Lipik 1839, etc.). Approximately at the same time, many European spa resorts have become very popular destinations for international visitors, such as Spa in Belgium, Aix-les-Bains and Vichy in France, Heviz in Hungary, Marianske Lazne and Karlovy Vary in Czech Republic, Rogaška Slatina and Radenci in Slovenia, Bath and Harrogate in England, Baden-Baden and Wiesbaden in Germany, Abano and Montecatini in Italy, Bad Ischl in Austria, etc. Apart from the thermal and mineral springs, during the last decades of 19th century thalassotherapy facilities were constructed in northern Croatian Adriatic coast (Opatija 1889 and Crikvenica 1895), along with some early medical researches on positive impacts of taking a bath in the lukewarm sea water combined with mild Mediterranean climate on peoples' health.

According to Kušen (2006), during the 19th century early development concepts of health tourism resorts in Croatia were focused on "satisfying needs and financial capabilities of privileged classes, including international demand". Unfortunately, the World War II has radically changed the way of using health tourism facilities in

Croatia. Since then and until the present time the most of these facilities has been set up to serve predominantly local and regional consumers whose costs of accommodation and rehabilitation treatments are usually paid by the public health insurance. The concept of more commercially based health tourism development has been put forward during the 1970s when the first large hotels were built within the most visited spa resorts, usually attached to special hospitals which had a right to use natural resources (hot springs). Unfortunately, the idea of open-market oriented health tourism service providing has failed to a large extent because hotels were mostly occupied by consumers whose stay related to health care treatments was also paid by the public health insurance. In spite of the large interest for the development of health tourism resorts, they have not been subject to any large-scale development so far. At the turn of a new millennium, development of such resorts financed and managed mostly by the public sector, turned to be ineffective and unsustainable, while related opportunity costs that arise from the absence of Croatia from the international health care market are widely regarded as high. Consequently, a growing interest of private investors and entrepreneurs who wish to expand an internationally oriented health tourism business in Croatia are recognized in last few years, mostly in wellness and medical tourism segments.

Although hot springs and special hospitals are not essential resources for medical tourism development, it is of a large importance for Croatia's image to be internationally recognized as a tourism receiving country with a variety of health care resources at consumers' disposal, long tradition in providing health care treatments, advanced medical scientific research, and well organized medical education system.

Resources for Medical Tourism Development

The process of choosing medical tourism destination regularly involves more factors than choosing a tourism destination for holidays. According to the empirical evidence already reported in this article, the most important criteria for choosing a medical tourism destination are image and quality of the host country's health care system, available medical tourism resources (medical staff and facilities), prices of medical and related services, and the attractiveness of tourism destination.

Owing to globalization process, past trends of travelling for health care from developing countries towards developed countries, as latter often had the best medical facilities, staff and cures, went through tremendous changes since the quality of overall medical resources in developing countries has significantly increased. The *image and quality of the health care system* has been identified as one of the main decisive elements for consumers to choose medical tourism destination outside their country of residence. The position of Croatia's health care system was reported by the WHO (2000), which ranked Croatia as 43rd out of 190 countries in the World

and 25th out of 42 countries in Europe regarding the quality of health care system (see Table 2 in Appendix). Although this report is rather old and methodologically flawed, it clearly shows the relations between health care systems across the world, although the ranking has been changed since then. Apart from the methodology used and Croatia's rank in WHO's report, it is important to notice that the most successful countries in maintaining and improving their health care systems were actually Mediterranean countries whose image of countries with pleasant climate and tradition of tourism service providing represents important advantages for visitor's final decision on choosing medical tourism destination. From that perspective, Croatia's geographical position within the Mediterranean region can be considered as a comparative advantage in terms of generating synergistic effects that could result from the combination of health care service providing and tourism development. In that case the most promising destinations for medical tourism development in Croatia are coastal large towns with good tourism and medical infrastructures. Apart from the coastal area, the inland destinations that are also suitable for medical tourism development are the capital city of Zagreb and already mentioned spa resorts.

Owing to a century-long history of medical scientific research and education, *medical staff* in Croatia has long been recognized as one of the most respective in Europe. Croatian medical schools have traditionally a good reputation because of their outstanding scientific achievements and internationally accredited study programs. After the completion of formal education, the majority of medical university degree holders are obligated to go through intensive practical trainings and additional specialization program, which is in line with the highest international standards of high education in medicine. Well organized education as well as the harmonization of criteria and standards in education with global trends, are good indicators of quality and expertise of Croatia's medical staff, which continuously improve its international recognition. According to 2009 data provided by the Croatian Bureau of Statistics (2010), there were in total 9,120 medical doctors employed in Croatia's health care system, of which 2,727 medical doctors (29.9% of total) worked in private health care institutions, and 2,568 dental physicians (28.2% of total) who worked in private health institutions or dentists' practices. In order to get a working permit, all medical staff in Croatia must be registered within the Croatian Medical Chamber or the Croatian Chamber of Dental Medicine. Bearing in mind that wages in private health care system are often much higher compared to wages in public health care system, medical tourism development seems to be an excellent opportunity for resident medical staff to compete for better jobs, but also a strong motivational factor for highly educated and experienced expatriate medical staff to return to Croatia.

Apart from the obligatory professional registers, interested parties in medical tourism development in Croatia is up to now gathered only around voluntary-based medical tourism hubs founded as professional associations. The most prominent medical tourism association in Croatia is the aforementioned Association for the

development of medical tourism, which main goals can be summarized as follows: promotion of medical tourism development, dissemination of information on medical service providers, networking of medical and tourism experts, organisation of conferences, lectures and other events, cooperation with similar organizations and associations abroad, lobbying for adaption of laws and regulations related to medical tourism, etc.

Beside certified high quality medical staff, the availability of *medical facilities* and state-of-the-art medical equipment are also two very important factors in decision making process of consumers who want to solve some medical problem. Regarding the existing private medical facilities in Croatia that are suitable for medical tourism service providing, official statistics (CBS, 2010) reveals that by the end of 2009, there were in total 2,700 private doctors' offices and 2,448 private dentists' offices. Unfortunately, business and legal environments in Croatia are not sufficiently supportive to strengthen medical tourism development, and thus, it cannot be expected that large investments or employment will occur in the following years. In order to encourage construction of the new medical facilities, purchase of the latest cutting-edge medical equipment, and additional employment, the introduction of the public-private partnership model is necessary, at least in domain of education, institutional support, and real estate operations.

Despite of some negative examples from the past times regarding the privatization of public resources in Croatia, privatization of some health care resources owned and managed by public sector seems to be unavoidable. The main reasons for that lies in fact that some medical facilities generate low economic and social benefits, and could be better utilized if implemented in market-oriented health tourism products. The examples of such facilities are some special hospitals for medical rehabilitation built around hot springs or some abandoned military complexes in the coastal region that might be implemented in some high value-added wellness and/or medical tourism development projects.

Price Positioning of Medical Tourism Services

From the empirical evidence it appears that the price positioning of the out-of-pocket medical services seems to be the highest ranked decisive factor that determine the visitor's choice of a particular medical tourism destination or, more precisely, a clinic that offers required services.

Owing to increasing competition, the price positioning of developing countries in the global medical service market, seems to be the most important strategy towards successful medical tourism development. According to aforementioned specialized web-site Treatment Abroad, focused on the medical tourism generating market of the UK, and its PriceWatch Survey (Treatment Abroad, 2011), Croatia belongs to

the group of countries with moderate prices of medical and related services, which correspond to its geographical position, but also to the economic and social characteristics of countries in the region. The 2011 PriceWatch Survey Report, based on the consistent criteria, reveals that selected medical treatments in Croatia are more affordable to western patients than those offered in their countries of residence (Table 3). For instance, the nose reshaping treatment in the UK or Germany is at least 100% more expensive than in Croatia, while for the same treatment in Poland patients will be charged on average with only 65% of the price in Croatia. The prices shown in Table 3 (in Appendix) are taken from a sample of clinics and hospitals in the UK and 14 other countries, and thus, serve as an informative comparison of prices. By comparing prices in Croatia and Germany, medical treatments are about 50% cheaper in Croatia than in Germany, which makes Croatia's large cities, coastal towns and spa centres, even more attractive destinations for German tourists. At this point it is interesting to point out that Germany represents a major tourism generating market for Croatia, regardless of the motivation for travel. According to official statistics (CBS), in 2010, there were over 1.5 million tourist arrivals and close to 11.5 million tourists' overnight stays from Germany. Within the size of such demand, the share of visitors who use medical treatments in Croatia can be considered as negligible. However, having in mind that the word-of-mouth promotion is the main source of information regarding medical treatments abroad, a large annual tourism demand from Germany can be considered as a potential market for the export of medical services.

As a final remark, it should be noted that the price comparisons of medical treatments provided in different countries can serve only as an informative set of indicators for the evaluation of trends in the global market. In that sense, surgical treatments of the same kind and of the same nominal prices, even in the same destination, usually differ between each other because of their complexity and necessary pre- and post-surgical treatments that depend on each patient's condition and requirements. Various analyses of the price comparisons published in available literature (e.g. Conell, 2006; Lunt and Carrera, 2010), reveals that significant differences among prices can result from additional expenses such as hospital and doctor charges, etc.

Analysis and Policy Recommendations

Although Croatia has been recognized as a country of an unspoiled nature, unique historical heritage and centuries-old tradition in tourism hospitality, its potentials for tourism development have not nearly been fully exploited. Such unused tourism potentials combined with growing demand for medical treatments from developed countries, and available resources within the existing health care system, could potentially contribute to the country's image and gain additional competitive advantage.

In order to outline some advantages and shortcomings of medical tourism development in Croatia, we performed a SWOT analysis (see Table 4 in Appendix). The analysis revealed many aspects that need to be considered and thoroughly examined. Among main strengths of Croatia's medical tourism product there are long tradition in health care service providing, medical staff with high reputation, preserved natural resources for health care service providing, and a image of a warm welcoming tourism receiving country. The main weaknesses are the lack of know-how related to medical tourism development, insufficient coordination between potential stakeholders, lack of strategy of medical tourism development, lack of branding and advertising activities focused on the international demand, and related restrictive legal regulations. Recently, a large attention of the research community in Croatia is given to opportunities related to medical tourism development, such as growing international demand for more affordable medical treatments, increasing number of potential investors in medical tourism infrastructure, medical tourism may serve as an incentive for medical staff to improve their education and apply for better jobs, improvement of interdisciplinary educational system, encouraging year-round tourism development, and the growth of demand from the EU on account of Croatia's accession to the EU. Finally, there are also certain threats that could have impact on the success of medical tourism development, like growing competition of medical service providers in the region, high risk of investment, uncontrolled expansion of privately owned medical facilities, lack of standards in medical service providing that can have negative impacts on image, and too low or too high price positioning of medical services comparing to the competitive destinations in the region.

Development of medical tourism in times of economic turbulence is challenging and calls stakeholders for careful rethinking of the real opportunities and possible negative side-effects that might arise from uncontrolled development. In order to improve Croatia's medical tourism product to be able to compete with the products of other developing countries, especially in Europe, this research suggests the following policy recommendations:

1) Institutionalization of medical tourism development – it is of high importance for government to recognize goals and efforts of existing medical tourism associations and assign public institution that would serve as a supervisory body concerned with policy matters and accreditation;
2) Implementation of public-private partnership model – government's active participation in development of medical tourism is required to improve medical resources and business infrastructure, promote medical tourism product during the large international events such as fairs, forums, and exhibitions, share investment costs or ensure funding of innovations, construction, and maintenance, support in organization of international scientific conferences related to medicine and tourism, improve education system for all stakeholders involved, and provide institutional support;

3) Introduction of medical tourism development strategy – one of the main derivates of the public-private partnership is development strategy that should appear as a result of scientific research and interdisciplinary approach;
4) Improvement of networking and international cooperation – need to create a single national medical tourism network of all related professional associations and service providers that will advance cooperation with the global medical tourism networks in order to promote Croatia's medical tourism product, keep it in line with products of other countries, and provide one stop solution for consumers;
5) Increase the effectiveness of marketing efforts – combination of traditional and new technologies enables the simultaneous use of multiple communication channels to reach the target market, that includes virtual (design of comprehensive web-sites and participation in popular social networks), printed (specialized health care and beauty magazines or national medical tourism catalogue), TV and radio (extreme make-over and talk shows), events (fairs, exhibitions, conferences), and other communication channels;
6) Improvement of medical tourism-related know how – education of entrepreneurs and other professionals related to medical tourism, introduction of exclusive interdisciplinary university study program focused on the management of medical tourism, organization of various workshops and forums, education and training of supporting staff;
7) Hiring professional tourism developers – due to the lack of knowledge and know-how related to development of the contemporary medical tourism product, it is strongly recommended for the medical tourism associations to hire professional tourism developers who have expertise in benchmarking, market research and implementation of best use practices;
8) Implementation of integrated tourism destination management model – model should involve all stakeholders such as medical, tourism, and public sector representatives interested in management, organization and control of medical tourism development;
9) Standardization of medical services and accreditation – introduction of internationally recognized standards of quality in health care service providing (like ISO 11000) and participation in related international accreditation programs;
10) Increase the number of participation in international scientific and development projects – in order to gain international recognition, additional financial resources, and institutional support (e.g. from the EU), it is important to propose and participate in joint-programs related to medical tourism education and development;
11) Reconsideration of restrictive legal regulations – in order to increase accessibility of medical services to international consumers, government should eliminate all constraints caused by legality of particular medical treatments or advertising activities.

Finally, there are two important long-term aspects considered as fundamental regarding the success of medical tourism development in Croatia. First, it must be pointed out that development of medical tourism cannot be successful without a long-term support of the public sector, namely the Ministry of Health, Ministry of Tourism, Croatian Institute of Public Health, Croatian Chamber of Economy, universities with interdisciplinary study and research modules, and local authorities. Their participation is necessary for elimination of a lack of funds, normative constraints, and administrative bottlenecks, in order to make it easier for entrepreneurs to realize their business ideas. Another key aspect of medical tourism development from the phase of spontaneity and improvisation towards a real business, is in establishing long-term cooperation with renowned global players specialized for the medical tourism networking, and development of targeted communication strategy towards potential market niches.

Conclusion

In this paper, medical tourism is recognized as an attractive extension of health care service providing to temporary visitors on out-of-pocket payment basis. Such concept of development is based upon a consistent and systematic approach, networking and collaboration among various stakeholders, scientific recognition and research, and reliable statistical records.

The need to travel for health maintaining purposes seems to be one of the main driving forces of future tourism development, especially health tourism. Regardless of the scope of such a need, health remains the highest ranking concern of all people ready to travel across the world to be healed or satisfied in their attempts to remain healthy. The medical tourism, as part of a broader concept of health tourism, serves as additional pull factor for attracting international demand to developing countries like Croatia. While developed countries dominate in the global medical market with capital, know-how, technology, and education opportunities, developing countries have advantages in the lower costs of labour, property, business operations (taxes, insurance, maintaining, accounting, marketing, etc.) and related tourist services (transport, accommodation, and other services). The same position countries have in access to the cutting edge medical equipment, education, and international health care market.

Regarding the medical tourism development in Croatia, it must be noted that it is still in its introductory phase in spite of available human, physical, and capital resources that could ensure better performance in terms of economic and social benefits. Among the general economic benefits, medical tourism development generates the growth of investments, income, employment, and tax revenues, while social benefits arise from the improvement of country's health care system, standardization

of health care service providing, shortening of the waiting lists in public health care system, and many others.

REFERENCES

Andrijašević, M., Bartoluci, M. (2007), "The development of wellness in tourism" in Bartoluci, M., Čavlek, N. *et al*., *Tourism and Sport – Aspects of Development*, (Zagreb: Školska knjiga).

Avelini Holjevac, I. (2001), "Kvaliteta i zdravstveni turizam", *Tourism*, 49(1): 57-62.

Aydin, D., Yilmaz, C. (2010), *Medical Tourism Research: Part One*, (Ankara: Republic of Turkey, Ministry of Health).

Balaban, V., Marano, C. (2010), "Medical tourism research: A systematic review", *International Journal of Infectious Diseases*, 14(1): 135.

Bergmann, S. (2011), "Fertility tourism: Circumventive routes that enable access to reproductive technologies and substances", *Signs*, 26(2): 280-289.

Boga, T.C., Weiermair, K. (2011), "Branding new services in health tourism, *Tourism Review*, 66(1/2): 90-106.

Booman, M.Z., Bookman, K.R., (2007), *Medical Tourism in Developing Countries*, (New York: Palgrave Macmillan).

Bramstedt, K.A., Xu, J. (2007), "Checklist: Passport, plane ticket, organ transplant", *American Journal of Transplantation*, 7(7): 1698-1701.

Brooker, C. (ed.) (2008), *Churchill Livingstone Medical Dictionary* (Norfolk: Elsevier Limited).

Budiani-Saberi, D.A., Delmonico, F.L. (2008), "Organ Trafficking and Transplant Tourism: A Commentary on the Global Realities", *American Journal of Transplantation*, 8(5): 925–929.

Bushell, R., Sheldon, P.J. (2009), *Wellness and Tourism: Mind, Body, Spirit, Place*, (New York: Cognizant Communication).

Canales, M.T., Kasiske, B.L., Rosenberg, M.E. (2006), "Transplant Tourism: Outcomes of United States Residents Who Undergo Kidney Transplantation Overseas", *Transplantation*, 82(12): 1658-1661.

Carrera, P., Bridges, J.F.P. (2006), "Globalization and healthcare: understanding health and medical tourism", *Expert Review in Pharmacoeconomics and Outcomes Research*, 6(4): 447-54.

Carić, D (ed.) (1994), *Zdravstveni turizam Hrvatske: vodič kroz ordinacije i lječilišta*, (Zagreb: Zagraf).

Chambers, D., McIntosh, B., (2008), "Using Authenticity to Achieve Competitive Advantage in Medical Tourism in the English-speaking Caribbean", *Third World Quarterly*, 29(5): 919-937.

Chee, H.L. (2007), "Medical Tourism in Malaysia: International Movement of Healthcare Consumers and the Commodification of Healthcare", National University of Singapore - Asia Research Institute *Working Paper*, No. 83.

Cheung, I.K., Wilson, A. (2007), "Arthroplasty tourism", *Medical Journal of Australia*, 187: 666-667.

Cohen, M., Bodeker, G. (2008), *Understanding the Global Spa Industry: Spa Management* (Oxford: Elsevier/Butterworth-Heinemann).

Connell, J. (2011), *Medical Tourism*, (Oxfordshire: CAB International).

Connell, J. (2006), "Medical tourism: Sea, sun, sand and … surgery", *Tourism Management*, 27(6): 1093-1100.

Croatian Bureau of Statistics (2010), *Statistical Yearbook 2010*, (Zagreb: Croatian Bureau of Statistics).

Croatian National Tourist Board (2011), *The list of spa centers in Croatia*, available on-line at http://croatia.hr/en-GB/Activities-and-attractions/Wellness.

D'Angelo, J. (2009), *Spa Business Strategies: A Plan for Success*, (Clifton Park: Cengage Learning).
De Arelano, A.B.R. (2007), "Patients without borders: The emergence of medical tourism", *International Journal of Health Services*, 37(1): 193-198.
Devereaux, M., Loring, J.F. (2010), "Growth of an industry: How U.S. scientists and clinicians have enabled stem cell tourism", *American Journal of Bioethics*, 10(5): 45-46.
Douglas, N. (2001), "Travelling for health: spa and health resorts" in Douglas, N., Douglas, N., Derrett, R., *Special Interest Tourism: Context and Cases* (Milton: John Wiley and Sons Australia).
Edelheit, J. (2011), *Medical Tourism Updates: The Travel Industry and Medical Tourism*, available online at http://www.slideshare.net/reneemariestephano/mta-webinar-travel-update-may-2011 [29.06.2011]
Edlin, G., Golanty, E. (1998), *Health and Wellness* (Boston: Jones Bartlet).
Eggertson, L. (2006), "Wait-list weary Canadians seek treatment abroad", *Canadian Medical Association Journal*, 174(9): 1247.
Ehrbeck, T., Guevara, C., Mango, P.D. (2008), "Mapping the market for medical tourism", *The McKinsey Quarterly*, May, pp. 1-11.
Erfurt-Cooper, P., Cooper, M. (2009), *Health and wellness tourism: spas and hot springs*, (Bristol: Channel View Publications).
Eysenbach, G., Powell, J., Kuss, O., Sa, E.R. (2002), "Empirical studies assessing the quality of health information for consumers on the world wide web: a systematic review", *Journal of the American Medical Association*, 287(20): 2691-2700.
Gahlinger, P. (2008), *The Medical Tourism Travel Guide: Your Complete Reference to Top-Quality, Low-Cost Dental, Cosmetic, Medical Care & Surgery Overseas* (North Branch: Sunrise River Press).
Garcia-Altes, A. (2005), "The development of health tourism services", *Annals of Tourism Research*, 32(1): 262-266.
Goeldner, C. (1989), 39th Congress AIEST: English Workshop Summary, *Tourism Review*, 44(4): 6-7.
Goodrich, J.N. (1994), "Health Tourism: A New Positioning Strategy for Tourist Destinations" in Uysal, M. (ed.), Global Tourist Behavior, (Binghamtom: International Business Press).
Goodrich, J.N. (1993), "Socialist Cuba: A study of health tourism", *Journal of Travel Research*, 32(1): 36-42.
Goodrich, J.N., Goodrich, G.E. (1987), "Health-care Tourism – An Exploratory Study", *Tourism Management*, 8(3): 217-222.
Grace, M.A. (2007), *State of the Heart: A Medical Tourist's True Story of Lifesaving Surgery in India*, (Oakland: New Harbinger Publications).
Graf, A. (2011), "Spirituality and Health Tourism" in Conrady, R., Buck, M. (ed.), *Trends and Issues in Global Tourism*, (Heidelberg: Springer Verlag).
Gupta, A.S. (2008), "Medical tourism in India: winners and losers", *Indian Journal of Medical Ethics*, 5(1): 4-5.
Hall, C.M. (2011), "Health and medical tourism: a kill or cure for global public health?", *Tourism Review*, 66(1/2): 4-15.
Hall, C.M. (2003), "Health and spa tourism" in Hudson, S. (ed.) *International Sports and Adventure Tourism*, (New York: Haworth Press).
Hall, C.M. (1992), "Review. Adventure, health and sports tourism" in Weiler, B., Hall, C.M. (ed.), *Special Interest Tourism*, (London: Belhaven Press).
Hall, C.M., James, M. (2011), "Medical Tourism: Emerging biosecurity and nosocomial issues", *Tourism Review*, 66(1/2): 118-126.
Hancock, D. (2006), *The Complete Medical Tourist* (London: John Blake Publishing).
Hazarika, I. (2009), "Medical tourism: its potential impact on the health workforce and health systems in India", *Health Policy and Planning*, 25(3): 248-251.

Hitrec, T. (1996), "Zdravstveni turizam – pojmovni i koncepcijski okvir", *Tourism and Hospitality Management*, 2(2): 253-264.

Hofmann, J. (2004), "Uloga i značaj zaštite okoliša u razvoju zdravstvenog turizma otoka Lošinja", *Gospodarstvo i okoliš*, 12(65): 619-625.

Hopkins, L., Labonte, R., Runnels, V., Packer, C. (2010), "Medical tourism today: What is the state of existing knowledge", *Journal of Public Health Policy*, 31(2): 185-198.

Hunter-Jones, P. (2005), "Cancer and Tourism", *Annals of Tourism Research*, 32(1): 70-92.

Inhorn, M.C., Patrizio, P. (2009), "Rethinking reproductive 'tourism' as reproductive 'exile'", *Fertility and Sterility*, 92(3): 904-906.

International Union of Tourism Organizations (1973), *Health Tourism* (Geneva: United Nations).

Ivanišević, G. (ed.) (2010), *Zdravstveni turizam: medicina i kultura*, (Zagreb: Akademija medicinskih znanosti Hrvatske).

Ivanišević, G. (2003), "Ljekoviti topli čki činitelji u Hrvatskoj i zdravstveni turizam", *Medix*, 9 (46/47): 164-169.

Ivanišević, G. (1999), "Marine remedies of the island of Lošinj – the basis for the development of health and spa tourism", *Tourism*, 47(2): 132-149.

Jagyasi, P. (2011), *Dr. Prem's Guidebook – Medical Tourism*, available on-line at www.DrPrem.com. [09.09.2011]

Jagyasi, P. (2010), *Medical Tourism Research & Survey Report*, (Dubai: ExHealth), available on-line at www.DrPrem.com. [12.09.2011]

Keckley, P.H., Coughlin, S. (2011), *2011 Survey of Health Care Consumers Global Report: Key Findings, Strategic Implications* (Washington: Deloitte Center for Health Solutions).

Keckley, P.H., Underwood, H.R. (2008), *Medical Tourism: Consumer in Search of Value,* (Washington: Deloitte Center for Health Solutions).

Kušen, E. (2006), "Zdravstveni turizam" in Čorak, S., Mikačić, V. (ed.), *Hrvatski turizam – plavo, bijelo, zeleno*, (Zagreb: Institute for Tourism).

Kušen, E., Mezak, V. (2005), "Hrvatski wellness hoteli", *Tourism*, 53(3): 397-405.

Kušen, E. (2002), "Health Tourism", *Tourism*, 50(2): 175-188.

Lautier, M. (2008), "Export of health services from developing countries: The case of Tunisia", *Social Science & Medicine*, 67: 101-110.

Leavy, H.R., Bergel, R.R. (2003), *The spa encyclopedia: a guide to treatments & their benefits for health & healing*, (Clifton Park: Delmar Learning).

Lee, C.G. (2010), "Health care and tourism: Evidence from Singapore", *Tourism Management*, 31(4): 486-488.

Lindvall, O., Hyun, I. (2009), "Medical Innovation versus Stem Cell Tourism", *Science*, 324(5935): 1664-1665.

Lunt, N., Carrera, P. (2011), "Systematic review of web sites for prospective medical tourists", *Tourism Review*, 66(1/2): 57-67.

Lunt, N., Carrera, P. (2010), "Medical tourism: Assessing the evidence on treatment abroad", *Maturitas*, 66(1): 27-32.

Mainil, T., Platenkamp, V., Meulemans, H. (2011), "The discourse of medical tourism in the media", *Tourism Review*, 66(1/2): 31-44.

Mair, H. (2005), "Tourism, health and the pharmacy: Towards a critical understanding of health and wellness tourism", *Tourism*, 53(4): 335-346.

Medlik, S. (2003), *Dictionary of Travel, Tourism & Hospitality* (Oxford: Butterworth Heinemann).

Menvielle, L., Menvielle, W., Tournois, N. (2011), "Medical tourism: A decision model in a service context", *Tourism*, 59(1): 47-62.

Messerli, H.R., Oyama, Y. (2004), "Health and wellness tourism – global", *Travel and Tourism Analyst*, p. 1-54.

Österle, A., Balázs, P., Delgado, J. (2009), "Travelling for teeth: characteristics and perspectives of dental care tourism in Hungary", *British Dental Journal*, 206: 425-428.

Pančić-Kombol, T. (2000), *Selektivni turizam*, (Matulji: TMCP Sagena).

Radovčić, Z. (2010), "Zdravstveni turizam – tržište u usponu", *UT*, 58(10/11): 70-72.

Raphael, D., Bryant, T., Rioux, M. (2006), *Staying Alive: Critical Perspectives on Health, Illness, and Health Care*, (Toronto: Canadian Scholars' Press).

Reed, C.M. (2008), "Medical Tourism", *Medical Clinics of North America*, 92(6): 1433-1446.

Reisman, D. (2010), *Health Tourism: Social Welfare through International Trade* (Cheltenham: Edward Elgar Publishing Limited).

Rhodes R, Schiano T. (2010), "Transplant tourism in China: a tale of two transplants", *American Journal of Bioethics*, 10(2): 3-11.

Schobersberger, W., Greie, S., Humpeler, E. (2004), "Alpine Health Tourism: Future Prospects from a Medical Perspective" in Weiermair, K., Mathies, C. (ed.), *The Tourism and Leisure Industry: Shaping the Future* (Binghamton: Haworth Hospitality Press).

Schult, J., Corey, J. (2006), *Beauty from Afar: A Medical Tourist's Guide to Affordable and Quality Cosmetic Care Outside the U.S.*, (New York: Stewart, Tabori & Chang).

Simić, T., Stajčić, A. (2009), "Pioniri medicinskog turizma", *Nacional*, 708.

Smith, M., Puczko, L. (2009), *Health and Wellness Tourism*, (Amsterdam: Butterworth Heinemann).

Smith, C., Jenner, P. (2000), "Health Tourism in Europe", EIU *Travel and Tourism Analyst*, 1: 41-59.

Spar, D. (2005), "Reproductive Tourism and the Regulatory Map", *New England Journal of Medicine*, 352: 531-533.

Srivastava, R. (2006), "Indian Society for Apheresis and apheresis tourism in India – Is there a future?", *Transfusion and Apheresis Science*, 34(2): 139-144.

Treatment Abroad (2011), *PriceWatch Survey*, available on-line at http://www.treatmentabroad.com/cosmetic-abroad/cosmetic-surgery-abroad-guide/typical-costs/. [26.09.2011]

Turner, L. (2008), "Cross-border dental care: 'dental tourism' and patient mobility", *British Dental Journal*, 204: 553-554.

Vijaya, R.M. (2010), "Medical tourism: Revenue generation or international transfer of healthcare problems?", *Journal of Economic Issues*, 44(1): 53-69.

Warf, B. (2010), "Do You Know the Way to San Jose? Medical Tourism in Costa Rica", *Journal of Latin American Geography*, 9(1): 51-66.

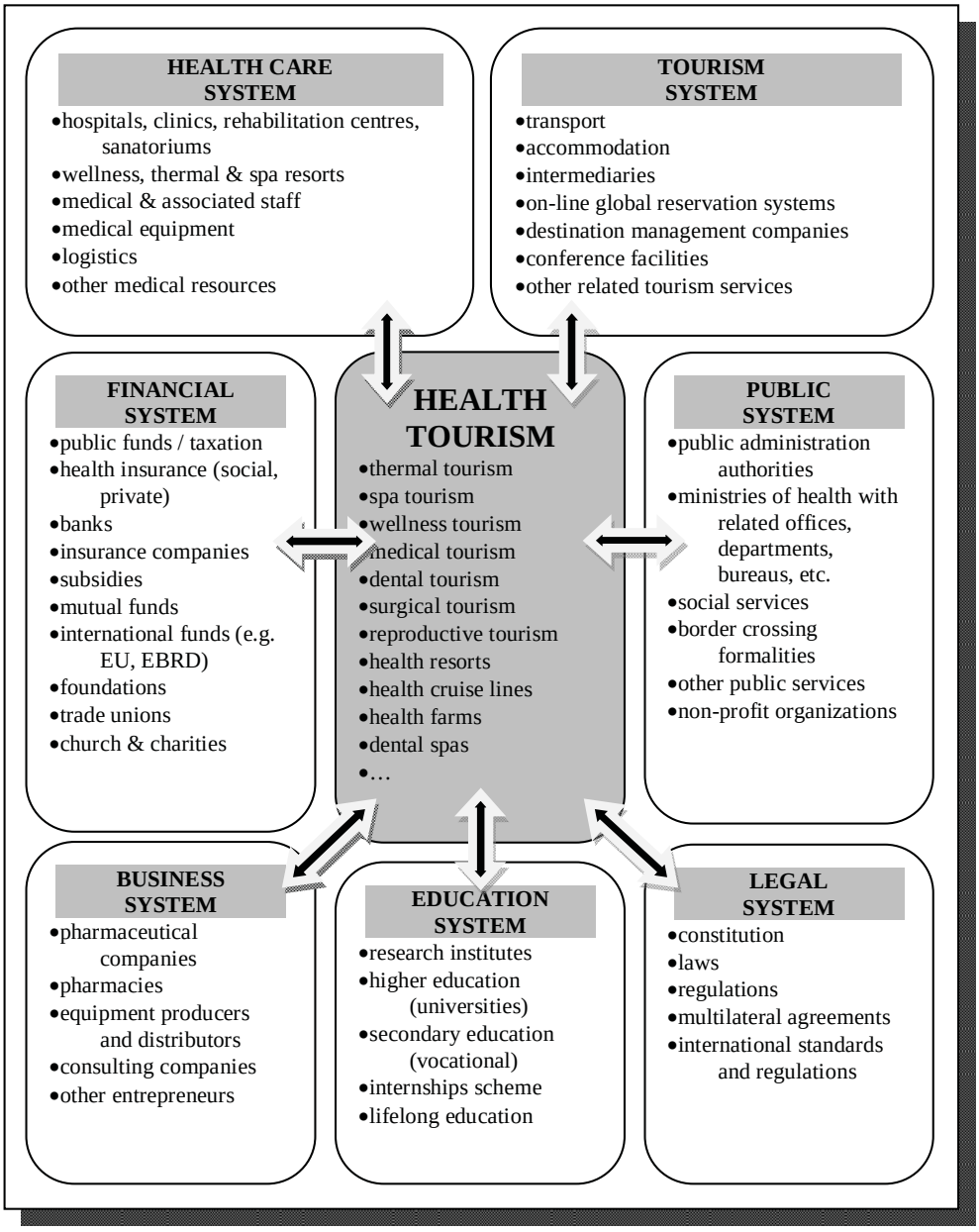
Wilson, A. (2010), "Medical Tourism in Thailand" in Ong, A., Chen, N.N., *Asian Biotech: Ethics and communities of fate*, (Durham: Duke University Press).

Woodman, J. (2008), *Patients Beyond Borders: Everybody's Guide to Affordable, World-Class Medical Travel*, (Chapel Hill: Patients Beyond Borders).

World Health Organization (2000), *The world health report 2000: Health systems: Improving performance*, (Geneva: World Health Organization).

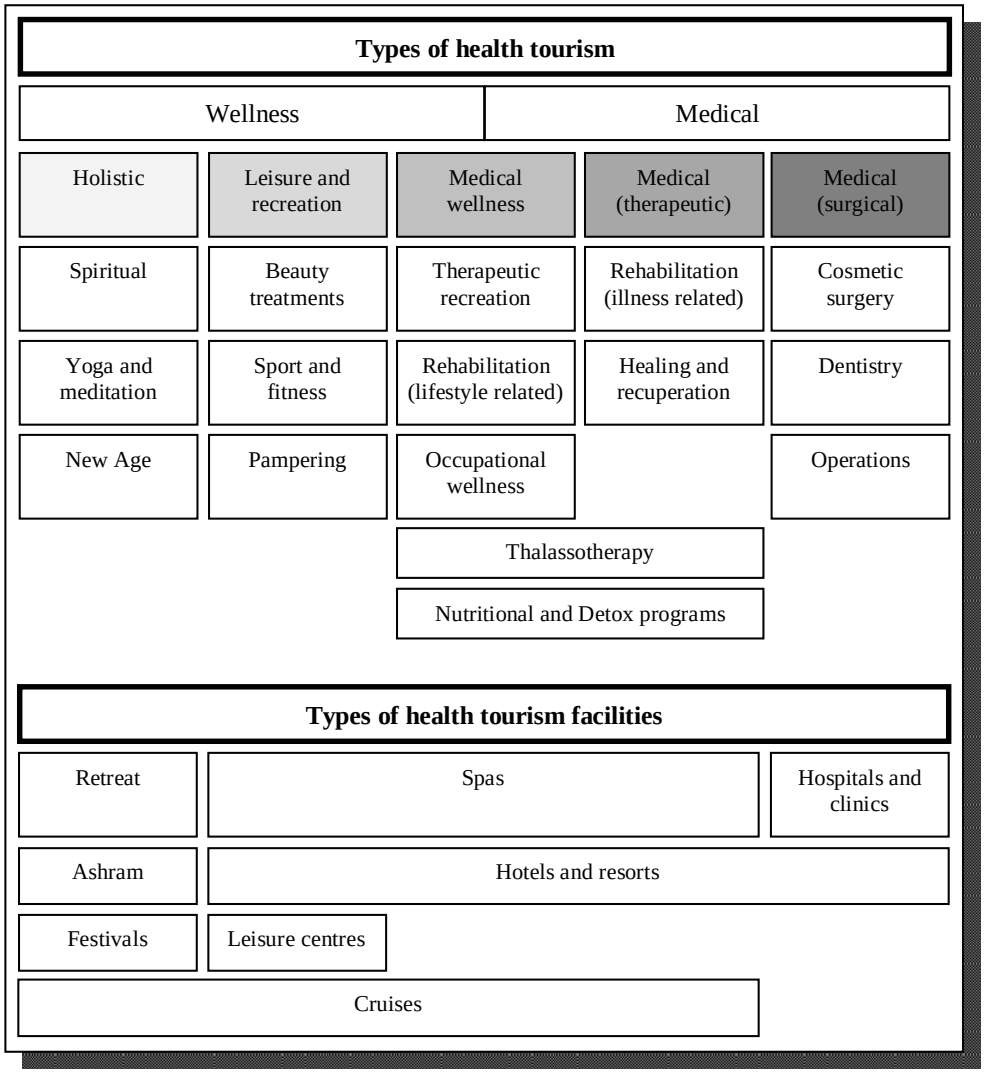
APPENDIX

Figure 1: Health tourism – participating and supporting systems



Source: authors

Figure 2: Spectrum of health tourism services and facilities



Source: Smith and Puczko (2009)

Table 1: Reasons for travelling abroad for medical treatment

Percentage of answers	Reason
88%	Affordability (costly in home country)
66%	Accessibility (waiting period is high)
57%	Better Quality (need higher quality than available in home country)
46%	Availability (not available in home country)
38%	Better Care (care and support services are better than in home country)
36%	Tourism Factor (tourism factor is tempting despite of the treatment available/affordable in home country)
30%	Privacy (patient doesn't want to be exposed in home country)
28%	Additional Benefits (other benefits not mentioned above)
26%	Adaptability (treatment is not acceptable in home country)
13%	Other Reasons (any other reason which might not be a usual benefit)

Source: Jagyasi (2010)

Table 2: Rank of 45 world's leading health care systems

Rank	Country	Rank	Country	Rank	Country
1	France	16	Luxembourg	31	Finland
2	Italy	17	Netherlands	32	Australia
3	San Marino	18	UK	33	Chile
4	Andorra	19	Ireland	34	Denmark
5	Malta	20	Switzerland	35	Dominica
6	Singapore	21	Belgium	36	Costa Rica
7	Spain	22	Colombia	37	USA
8	Oman	23	Sweden	38	Slovenia
9	Austria	24	Cyprus	39	Cuba
10	Japan	25	Germany	40	Brunei
11	Norway	26	Saudi Arabia	41	New Zealand
12	Portugal	27	UAE	42	Bahrain
13	Monaco	28	Israel	43	Croatia
14	Greece	29	Morocco	44	Qatar
15	Iceland	30	Canada	45	Kuwait

Source: WHO (2000)

Table 3: Indicative costs for cosmetic surgery in selected countries, 2011

Country	Medical treatment			
	Rhinoplasty (nose reshaping)	Breast augmentation	Upper and lower eyelids	Facelift
UK private hospital	£3,000 to £4,000	£3,500 to £5,000	£2,900 to £3,700	£4,300 to £6,000
UK cosmetic surgery clinic	£3,100 to £3,300	£3,600 to £4,600	£1,950 to £3,700	£4,000 to £5,700
Argentina	£1,270 to £1,750	£1,800 to £2,815	£1,165	£1,060 to £2,415
Belgium	£1,650 to £2,850	£1,960 to £2,720	£1,600	£1,650 to £2,950
Bolivia	£790	£1,590	£850	£1,590
Brazil	£1,550	£2,345	£1,550	£1,948
Croatia	£1,150 to £1,500	£2,250	£1,400	£2,700
Czech Republic	£1,756	£2,346	£1,226	£2,056
Egypt	£1,500	£2,000	£1,200	£2,100
Germany	£3,400	£3,000	£1,900	£3,400 to £6,000
India	£850	£1,300	£1,050	£1,800
Poland	£750	£1,920	£1,290	£1,945
South Africa	£2,100	£2,200	£1,750	£3,300
Spain	£2,400	£2,900	£2,100	£3,200
Tunisia	£1,260	£1,750	£1,190	£2,400
Turkey	£1,600	£1,720	£1,350	£1,600

Source: Treatment Abroad (2011)

Table 4: SWOT analysis of Croatia's medical tourism product

STRENGTHS:	WEAKNESSES:
• Long tradition of health tourism and health care service providing • Considerable expertise of medical staff • Already founded medical tourism associations • Excellent natural health care resources, climate conditions and preserved nature • Affordable prices of medical and related services • Good position on the map of Europe • Image of a warm welcoming tourist receiving country • Steady growth of total tourism demand for Croatia • High level of personal safety • Complementary with development of other special interest tourism	• Lack of knowledge on medical tourism development • Lack of cooperation and coordination between health care and tourism systems • Insufficient infrastructure for medical tourism development • Absence of development and marketing strategy for medical tourism • Lack of branding and advertising activities • Tourism development is focused mainly on the coastal region • Regulations that limit advertising of dental services • Regulations that prohibit some medical treatments • Inherited management of natural medical care resources
OPPORTUNITIES:	**THREATS:**
• Growing international demand for health care services • Growing interest of investors in health care facilities and equipment • Significant economic benefits • Get the most out of technologies and health services • Motivation for medical staff • Improvement of educational system • Increase of health care system efficiency • Improvement of social welfare • Diminishing of seasonality effect of tourism • More efficient utilization of accommodation and other facilities • Forthcoming Croatia's accession to the EU • Return of top Croatian doctors and scientists from other countries	• Growing competition from well-known medical tourist receiving countries • Lack of efficiency in public administration and excessive tax burden for new entrepreneurs • Possible resistance of local residents towards usage of public resources for high-profit oriented economic activity • High risk of investments • Brain-drain of the best medical staff from public to private health care system • Uncontrolled expansion of construction of medical facilities • Absence of standards in medical and related service providing • Inadequate price positioning

Source: authors