Sustainable Medical Tourism: Conceptual Framework



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Definition

Referring to the definition of sustainable tourism and taking into consideration the specifics of medical tourism, it can be assumed that sustainable medical tourism is a conscious and sustainable human activity, in which a medical tourist/ mobile patient aims to obtain broadly understood healthcare outside their permanent place of residence (at home or abroad), consisting mainly in maintaining (obtaining better) health, and/or aesthetic appearance of one's own body, often combined with rest and consumption of tourist packages. This balance should address all three aspects – social, economic, and environmental. Therefore, the provision of sustainable medical tourism services, most often by commercial healthcare entities, should be carried out with rational spatial distribution resulting in the strengthening of local economies and improving

the quality of life of the society while respecting natural resources and using innovative solutions in the medical tourism business.

Introduction

As the introduction to the three United Nation Sustainable Development Goal (SDG) states: "ensure healthy lives and promote well-being for at all ages" is essential to sustainable development (Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development 2019, p. 3). Health is not only a simple lack of illness. Nowadays people know that it is a more complex and multidimensional phenomenon. According to World Health Organization (WHO), health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO 2019). The Organization has proclaimed that physical and mental well-being is a human right, enabling a life without limitation or restriction. At present WHO has also established a holistic strategy to optimize people's health and well-being throughout life and interlink ages with human capital and sustainable development called "A life course approach to health, human capital and sustainable development" (ibid). This initiative should encourage especially country governments, but also stakeholders such as health and development agencies or service providers as well

as communities and individuals, to implement this approach to everyday life in order to achieve SDG 3 – ensure healthy lives and promote well-being for all at all ages. In the explanation of how important it is to contemporary societies one can find that:

- Investing early in people's health and wellbeing, and sustaining gains throughout life, can significantly reduce health challenges and promote human capital and sustainable development.
- The world has committed to achieving health for all and SDGs using people-centered, multisectoral approaches; a life course approach provides high-impact, evidence- and rightsbased strategies to do so.
- The returns of a life course approach can be ten times the investment, with better effectiveness, efficiency and equity, and contributions to health, human capital, and SDGs by 2030.
- 4. Countries and communities implementing a life course approach to health, human capital, and sustainable development are realizing farreaching benefits for current and future generations and the planet (ibid).

Even though SDG 3 is mostly connected with such issues as reducing severe illness and mortality among people, it also mentions topics close to the medical tourism phenomena, especially in two of its targets:

3.8 – Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.

3.C – Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States. (Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development 2019, p. 4)

From the very beginning, taking care about people's well-being (including health) and improving the quality of life were strongly connected with the idea of sustainable

development (Dłużewska 2019). Sometimes in order to help themselves to maintain their health, patients have to go abroad. For some people, it is easy and affordable, but for many it is not, which can cause some situations of exclusion. These and other reasons – associated among others with the destination area, its development, and changes inextricably connected with tourism – make medical tourism a rather unsustainable issue. On the other hand, according to World Tourism Organization (UNWTO), "sustainable tourism development guidelines and management practices are applicable to all forms of tourism in all types of destinations, including mass tourism and the various niche tourism segments" (UNEP and UNWTO 2005). Analogically to sustainable development definition, sustainable tourism is understood as tourism that takes full account of its current and future economic and social and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities (ibid). It has to be noticed that the general concept of sustainable tourism (with ecotourism as its core) has been widely criticized (e.g., Butler 1999; Liu 2003). Nevertheless, there is still a strong need for continuous efforts at many different levels and aspects to finally achieve persistent effects in this field, as everybody accepts the need of developing both the concept and the practice. At the same time, the issues of sustainability in medical tourism are not particularly often undertaken by the scientists.

Medical Tourism: The Essence and Concepts

Health tourism is a universal and large term that covers all trips for health purposes. It includes spa, wellness, and medical tourism. Health resort tourism refers to travel to sites holding the legal status of a health resort; wellness tourism refers to the improvement of well-being without a referral and medical specialist intervention, when a tourist seeks physical, psychological, or spiritual transformations (Dryglas 2018). Voigt and Laing (2013) analyze this phenomenon as "medical wellness tourism." It refers to journeys combining

the concept of wellness with the biomedical concept of health. According to Marinau et al. (2009), wellness industry is fairly wide: from health through fitness, beauty and antiaging, healthy nutrition, alternative medicine, tourism, spa and wellness, workplace wellness, to medical tourism.

Health tourism has a long history, dating to the very early age of civilization: wealthy people traveled to far-off lands to experience hot springs and bathe in mineral waters and for general repose and rejuvenation. Since the nineteenth century, rich patients from less developed countries traveled to major European and US medical centers for treatment unavailable in their own countries and for special and innovative healthcare facilities, whereas, from the end of twentieth century, a reverse flow of patients can be observed from highly developed nations to less developed countries avoiding the healthcare services offered in their own land, where they are inaccessible and undesirable, with overworked public health systems and long waiting periods (Jadhav et al. 2014).

Medical tourism most often concerns foreign travel (outbound and inbound tourism) and is understood in this way by leading researchers (e.g., Connell 2013; Crooks et al. 2019; Lunt et al. 2014). Considerations have recently been made regarding the development of national medical tourism (e.g., Carabello 2013; Snyder et al. 2017).

Although there are voices that a participant in medical tourism/"medical tourist" is mainly looking for treatment, without intending to spend a holiday or avail of tourism services (e.g., de Castro et al. 2015), practice clearly shows that many travelers use medical services when on leisure or business trips or during visits to friends and relatives. The consumption of specific medical services additionally allows the identification of individual categories of medical tourism, e.g., dental tourism, reproductive tourism, abortion tourism, surgical tourism, etc. (Lubowiecki-Vikuk and Dryglas 2019a). Such atomization, although controversial, is practiced in business, emphasizing the essence, and distinguishing feature, of the medical tourism

product, where the tourist attributes of specific destinations are indicated next to the medical service (Dryglas and Lubowiecki-Vikuk 2019).

Four different categories of medical travelers can be distinguished:

- Value patients come mainly from developed nations such as the European countries and the United States, where healthcare is overpriced or unaffordable. A majority of these patients are in their fifth decade and have medical problems requiring expensive medical care. These patients have limited insurance coverage, are often uninsured, or essentially require surgical and dental procedures that are not regularly covered by insurance. Cosmetic and plastic surgery is fashionable in the western part of the world; hence such patients demand affordable care.
- Access patients travel from regions where there
 is limited availability of quality healthcare. In
 United Kingdom and Canada, public health
 systems are overreached, and patients from
 such areas are looking at options for obtaining
 speedy healthcare from other nations. Newly
 wealthy patients coming from countries with
 less developed healthcare systems are also
 demanding cross-border healthcare.
- Quality patients travel to obtain excellent medical and surgical facilities in terms of the most technologically advanced medical procedures available, high-tech surgery, modern methods of treatment and specialty care, the best doctors and nursing care resulting in the best outcomes. They are usually not inhibited by cost deliberations, especially those traveling for critical care.
- Leisure-based patient is interested as well in tourism as in medical treatment (Woodman 2015).

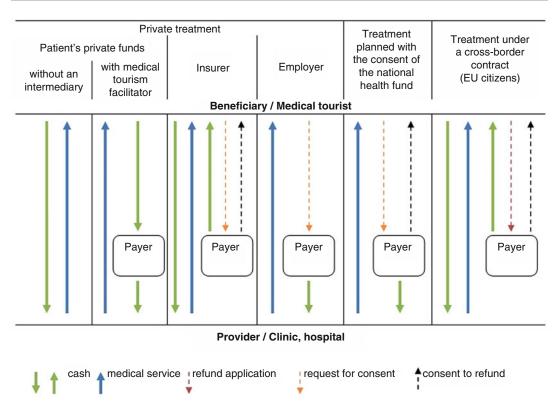
Medical tourism is conceptually full of nuances, contrasts, and contradictions, which results in difficulties in analyzing this phenomenon (Frenz 2019; Reed 2008). In social space it "has spread fantastic promises and imaginations of speedy and happy healthcare across the globe,

triggering (inter-)national cross-border mobility of patients" (Frenz 2019, p. 321). In the field of science and social life, medical tourism is still not fully recognized and clearly defined (Connell 2013). Literature deals with various approaches explaining this phenomenon. On the one hand, medical tourism is perceived as an obligatory point of tourist trip program and, on the other hand, as a phenomenon of global (including cross-border) healthcare (Lunt et al. 2014). According to Connell (2013, p. 10) all movements of cross-border healthcare should be referred to as "medical travel," "but it should also be noted that 'medical tourism' will continue to be used for many components of that mobility." The term medical tourism is also sometimes used as a synonym for health tourism, medical wellness, healthcare tourism, or health resort (sanatory/ curative/spa) tourism (Choi 2015). This introduces unnecessary confusion. The concept of medical tourism differs from country to country. Unlike Western Europe, where the emphasis is on prevention and mental and physical health, in Central and Eastern Europe, the emphasis is primarily on physical health. In Southern Europe, there are treatments based on seawater, while in Northern Europe, spa tourism is based on natural landscape and treatment with cold water in lakes (Dryglas 2018).

Medical tourism should be seen as a phenomenon of increasing importance, in which patients travel outside the permanent place of residence in order to use health-related services, including tourism packages (Connell 2013). Lubowiecki-Vikuk and Dryglas (2019b) have given strong arguments that in medical tourism there is a need for:

- Consultation with and approval of a medical specialist to perform a medical procedure
- Performance of services by qualified medical personnel
- · Medical care
- Usually, payment of the total service cost by the patient

The last given criterion is complex. In the European Union (EU) countries, a directive on cross-border healthcare has been operating since 2014, providing free access to treatment in public space for all EU citizens. Mobile patients under a cross-border contract are required to submit a refund application to the national health fund, where, after receiving reimbursement approval, they can take treatment outside their home country. They decide to go abroad because they have, among others, the possibility of accessing specific treatments that are not available, e.g., due to the long waiting time, in their place of residence. These services are of high quality, and their cost is often lower (popular trips of Poles to the Czech Republic for cataract treatment). It turns out that trust in doctors and the lack of cultural and language barriers are important issues. It is not surprising that among the large number of patients, there are immigrants undertaking treatment in their country of origin (Horsfall 2019). Besides the country of origin of medical services, the power of the country, and the origin of the consumer (Boguszewicz-Kreft et al. 2019), the motives of patients participating in medical tourism also include feelings of general dissatisfaction with the national healthcare system (Cameron et al. 2014). Hence, it is possible for the planned treatment to be refunded by the national health fund as part of the planned treatment. Therefore, despite the fact that the practices of paying the patient with their own financial resources are more common in the medical tourism business, other options must be kept in mind. The payers of medical tourism packages or parts thereof can be patients (from private funds or from a national health fund) under private treatment or a crossborder contract, as well as national health funds (planned treatment) or insurance agencies (Fig. 1). Schmerler (2018) also pointed out that there is still the possibility of employer sponsorship. A similar case is also described by Carabello (2013). The abovementioned issues are the most common reasons for open discussions on the possibility of inequalities in the development of medical tourism, which translate into the pillars of sustainable development. Concerns about the negative impact



Sustainable Medical Tourism: Conceptual Framework, Fig. 1 Payment options in the medical tourism business. (Source – the author's own study)

of the development of medical tourism on the economy, environment, and local culture are increasing.

The emergence of antagonistic attitudes and behaviors of medical students, the medical community, medical staff, or the local community toward medical tourists is an example of dysfunction of medical tourism. Trips of more affluent patients to economically underdeveloped or developing countries may arouse in them a sense of superiority, overconfidence, as well as an instrumental and aggressive approach to the natives, which will negatively affect the opinion about the country from which they come. This also supports the consolidation of the undesirable and socially harmful phenomenon of the so-called neocolonialism and deepening of the differences between the societies of poorer and prosperous countries (Machnik and Lubowiecki-Vikuk 2019). An arduous effect of the development of medical tourism is too rapid urbanization.

Foreign tourist service centers are rapidly transforming into medical villages (ghettos), losing their natural attractiveness. It also contributes to environmental degradation (disturbance in the landscape, violation of water relations, direct and indirect threat to local fauna and flora, air pollution, excessive noise, medical waste).

Medical Tourism in the Concept of Sustainable Development

By definition sustainable tourism is a continuous and long-term process which requires the informed participation of all relevant stakeholders and should:

 Make optimal use of environmental resources that constitute a key element in tourism development, maintaining essential ecological

- processes, and helping to conserve natural heritage and biodiversity.
- Respect the sociocultural authenticity of host communities, conserve their built and living cultural heritage and traditional values, and contribute to intercultural understanding and tolerance.
- Ensure viable, long-term economic operations, providing socioeconomic benefits to all stakeholders that are fairly distributed, including stable employment and income-earning opportunities and social services to host communities, and contributing to poverty alleviation.
- Maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness (Machnik and Królikowska-Tomczak 2019) about sustainability issues and promoting sustainable tourism practices amongst them (UNEP and UNWTO 2005).

Because the term "sustainability" was for a long time not clearly understood by politicians and entrepreneurs and was also believed to be overused, the term "responsible tourism" was invented. Responsible tourism is any form of tourism that can be consumed in a more responsible way. As found in the Cape Town Declaration of Sustainable Tourism (2002), that kind of tourism is applicable every time when tourism:

- Minimizes negative social, economic, and environmental impacts
- Generates greater economic benefits for local people and enhances the well-being of host communities
- Improves working conditions and access to the industry
- Involves local people in decisions that affect their lives and life chances
- Makes positive contributions to the conservation of natural and cultural heritage embracing diversity
- Provides more enjoyable experiences for tourists through more meaningful connections with local people and a greater understanding of local cultural, social, and environmental issues

- Provides access for physically challenged people
- Is culturally sensitive, encourages respect between tourists and hosts, and builds local pride and confidence

As Carabello (2013, p. 1) claims, "medical tourism follows the principals of sustainable tourism, aimed at improving the quality of life of everybody involved in the tourism sector," and taking the effects into consideration – the benefit of medical travel is a good decision for all. But there are still not too many studies concerning this topic, and they mostly focus on the economic aspects. According to Perkumienė et al. (2009), the development of sustainable medical tourism is associated with two very important groups: the medical sector (institutions and doctors) and the tourism sector. Consequently it is relevant for the whole country, providing it with additional money as the other branches of tourism industry. The other approach is to underline the necessity of cooperation and involvement of many different entities and stakeholders, including the local government. Such kind of medical tourism organization also supports the sustainability of the tourism product as the survival of the industry is in the best interest of all stakeholders, and thus they are incentivized to protect all healthcare tourism resources (Jackson and Barber 2015). Sometimes sustainability in medical tourism is understood also as a law/organization issues (which need to be improved) and equally an innovation and indigenous manufacturing development (Jadhav et al. 2014). As remarked by Perkumienė et al. (2019), sustainable medical tourism exists when tourism meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. Consequently benefits of the implementation of sustainable medical tourism practices are the reduction/standardization of costs, positive public relations and improved image, and satisfaction and rise in demand. Bolos (2013) notes that intellectual property is also an important aspect of medical tourism from the perspective of attracting patients; from this point of view, it offers the same sustainable

advantage to the hospital and destinations as it offers to companies in other sectors.

Also the doctors themselves have perceived that it is crucial to treat their medical trips to the developing countries as a kind of mission not only connected with delivering healthcare to local community members but also with spreading the idea of sustainability. In response to the growing number of allegations related to medical tourism, pediatricians from Seattle have created their own program with a very precise assignment: "To ethically address underlying health issues and to provide sustainable public health interventions and medical assistance for underserved communities in developing countries" (Suchdev et al. 2007, p. 317). To enable doctors and future doctors to better understand the spirit of sustainable development and to develop medical students' knowledge, skills, and attitudes about the interdependence of human health and ecosystems health, the concepts of "a sustainable physician" (Mortimer 2010) and sustainable medicine (Thompson and Ballard 2011) were introduced to the medical education program, as well as an "environmentally sustainable medical curriculum" which includes the effects of environmental change on health and healthcare's impact and dependence on the local and global environment. Walpole et al. (2017, p. 1048) accentuate that medical schools, educators, and students not only have a responsibility but also an opportunity to promote a sustainable medical curriculum for the advancement of our global and local environment, with consequential reimbursements to individual and global health.

Of course another important factor is the tourist point of view and his experience (Perkumienė et al. 2019). This was analyzed by Polas et al. (2019) in Bangladesh, but it has to be said that the factors influencing the decision-making process are the same as in other forms of tourism, including safety. However, the sense of safety is a crucial factor: many medical tourism researchers have expressed concern about the potential negative effects on the safety of medical tourists, the healthcare system – in the host country and in the country of permanent residence of the patient – and for global fair access to healthcare as part of the concept of sustainable

development (e.g., Horowitz and Rosensweig 2007; Lunt et al. 2012; Snyder et al. 2012). Scientific discourse concerns the quality of healthcare for foreign patients, disclosure of information to them, legal redress - when patients suffer damage in care in foreign healthcare entities – as well as damage to public healthcare systems in reception and issuing countries. The last case concerns the migration of public health professionals from the public to the private sector (Crooks et al. 2019) and additional costs for national systems resulting from postoperative complications, neglect, and infections acquired during the medical tourist's journey (and possibly accompanying persons). In the opinion of Turner (2010), the emergence of a global market for health services will have serious consequences for health insurance, conditions for the provision of medical services, patient-doctor relations, publicly funded healthcare, and the spread of medical consumerism.

In order to protect the safety and well-being of patients, all care should be taken in the process of providing medical tourism services, before, during, and after medical travel (Table 1), both on the side of patients and cooperating companies (which is not common in practice). The various stages of this type of travel should include risk minimizing tasks. One should agree with Runnels and Carrera (2012) that quality issues, the type of procedure, and the choice of the service provider are important in the risk assessment. It seems a priority to use the available tools to transfer ethical problems to entities on the medical tourism market. An example would be an information sheet that was constructed based on a three-step methodology:

- 1. Literature search
- 2. Development of information tools
- 3. Opinions resulting from information obtained from stakeholders, including medical tourists and possible correction of the tool (Adams et al. 2017).

The data should be reliable, including medical errors and deaths of medical tourists. The document can be a valuable source of information

Sustainable Medical Tourism: Conceptual Framework, Table 1 Recommended tasks to be carried out at individual stages of medical travel, including the safety of medical tourists

Travel stages	Tasks	Details
Before	Contact with a GP and travel medicine doctor (4–6 weeks before the planned trip); consumer education	Consult your general health, discuss the contraindications for performing the planned surgery Discuss general information about health during travel and specific risks associated with the procedure and travel before and after the procedure—be aware of the consumer, learn about the rights of the patient Determine the continuity of medical care after returning Perform the necessary preventive vaccinations
	Establishing a diagnosis and/or treatment plan (scenario ^a) and cost of stay at the receiving medical facility; agreement	Check the credibility and quality of a medical facility (certificates, accreditations, patient service opinions, qualifications, competences, and achievements of doctors/medical staff) Discuss the treatment program (online) with the assigned employee of the facility (patient's coordinator), including preparation for surgery, medical procedure, and convalescence Optionally choose the person who will act as an interpreter Due to the combination of treatment and rest, familiarize the patient with the permitted behaviors after the procedure, whether there is the possibility of sunbathing, taking physical activity (trips, swimming), consuming alcoholic beverages On the basis of a transparent price list, discuss in detail the cost estimate of the planned procedure and medical care (what services are included in the package and for which you will have to pay extra, in particular if the medical procedure fails), possible participation of the institutional payer (insurer, health insurance fund, national fund health) Determine the payment method (credit card, instalment form) Determine the sum of the guarantee and its scope, discuss the rules of the complaint, estimate the risk Determine the scope of insurance on the patient's side Prepare (legal consultation) and then sign the contract in the patient's native language
	Preparation of necessary information and documents	Prepare copies of medical records, including information about medicines taken by the patient The patient should become familiar with the general information about the visited country (especially regarding cultural differences, threats resulting from endemic features of areas) and international rankings of medical tourism destinations based on the pillar of safety and health protection Familiarize the medical staff with the patient's profile, especially in the field of cultural and social competences Sign a policy for the selected risk option

(continued)

Travel		
stages	Tasks	Details
	Travel planning ^b : booking the appropriate means of transport (considering the restrictions after the procedure), booking the accommodation	Set a date for the planned medical procedure Prepare travel-related documents (passport, visa, tickets) for the patient and the person/persons accompanying him/her Use the help of a medical facility in the organization and service of the medical tourism movement
During	Active participation in the treatment process (communication)	Sign the patient's informed consent to conduct a medical procedure Patient service should comply with internationally accepted standards ensuring confidentiality/privacy respecting his culture and religion Provide copies of documentation of procedures carried out and other documents in the patient's native language
After	Medical care — patient-physician _{x/y} and/or patient-physician _x - physician _y dialogue	The patient should consult the physician _x of the first contact, first of all follow the recommendations of the doctor performing the procedure/surgery The patient should be able to take advantage of online consultation with the attending physician _y from the country where the treatment took place

Sustainable Medical Tourism: Conceptual Framework, Table 1 (continued)

Source: the author's own study based on Crooks et al. (2017), Meyers (2019), and Rutkowska and Haczyński (2017)

(telemedicine)

necessary to maintain the security of not only consumers but also medical tourism enterprises.

In turn, when managing a healthcare facility to ensure due diligence in the provision of medical tourism services there, one should have regard to, among others:

- Legal regulations and institutional licenses (Shaw 2015).
- The patient's right to health services in accordance with current medical knowledge, information about his health, the secrecy of information related to him, consent to the provision of health services, respect for his intimacy and dignity, medical documentation, and the rights of the consumer of tourism services.
- The doctor's right to refuse to provide health services, keep medical records, and refrain from health services incompatible with one's conscience.

- Audit (internal and external) of the facility in terms of service to foreign patients, the aim of which will be to obtain a quality management system certificate.
- Accreditation as an objective assessment of the level of healthcare offered to medical tourists.
- Building and applying a system of secure processing of medical e-documentation, in accordance with current legislation.
- Training and protection of patient coordinators (including insurance) against the burdens associated with personalized patient service (Crooks et al. 2017).
- Marketing activities based on the creation of a transparent website where potential patients will have better access to information necessary for making informed decisions about the treatment process, e.g., membership in prestigious associations, experience, and description of medical procedures used pain-free treatment (Turner 2012). The entity should not

^aTaking into account unforeseen care during transit in the event of complications

^bPossibility of using the services of medical tourism facilitators

- withhold information about medical errors, even those directly related to the patient's loss of life. Only credible companies can increase the chances if medical tourists seek care in centers recognized as promoting patient safety.
- The concept of sustainable development, respecting environmental justice through, inter alia, proper disposal and treatment of medical waste (Machnik and Lubowiecki-Vikuk 2019). Waste generated in connection with the provision of health services and conducting research and scientific experiments in the field of medicine is a significant environmental protection problem, mainly due to the dispersion of their places of origin. The effect of consumption of medical tourism services is, among others, hazardous medical waste or specific waste, such as expired medicines. Ultimately, this has an impact on the environment, resources, and waste management in medical tourism destinations.

There is no doubt that the responsibility for patient safety lies with the doctor. There is growing evidence that a small number of doctors may be disproportionately responsible for a large number of complaints and concerns raised by patients (Mannion et al. 2019). There is a risk that the role of individual specialists in paying attention to their offenses is neglected. The situation is aggravated by the fact that in the day-to-day functioning of healthcare entities, there is a significantly low level of social control with sanctions routinely used to prevent or remedy errors or violations of standards (Tarrant et al. 2017). As a result, sanctions are not effective, and sometimes they are incompatible with patient safety and high standards of healthcare. This is of serious concern, especially as medical tourists usually purchase services from private healthcare entities, often from physicians conducting individual specialized medical practices.

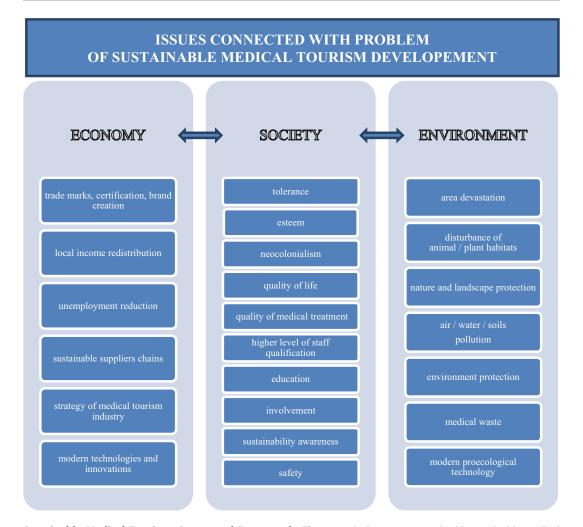
Framework for Future Sustainable Development of Medical Tourism

Similarly to the general difficulties of sustainable development of tourism, some general problem should be taken into consideration at each of three sustainability pillars — economy, society, and environment. As in the other forms of tourism, achieving sustainability is not an easy task. Taking responsibility for local communities, their safety and dignity, to ensure well-qualified staff and professional healthcare while trying not to harm the natural environment seems to be crucial for medical tourism enterprises. Details of these topics are enumerated in Fig. 2, but the list cannot be comprehensive because there are many particular questions for each given destination.

Apart from the issues connected in particular with the three fundamental pillars of sustainability, it is necessary to build strong cooperation between stakeholders (Perkumienė et al. 2019) and have a good strategy and law (Medhekar 2014). Additional factors in order to accomplish sustainability in medical tourism development are innovations, technical as well as procedural ones (Machnik and Lubowiecki-Vikuk 2019). Wellorganized and trustworthy medical care can be an attracting factor for medical tourists and even become some kind of a trademark (Bolos 2013).

Reviewing the literature, one can find some interesting assumptions connected with the contemporary state of research in this field. Most interestingly, the majority of conclusions concern the economic pillar. On the other hand, there are very few discussing environmental problems (Table 2).

Reassuming, three topics seem to be very important for future sustainable development of medical tourism – government involvement (Medhekar 2014), participants' cooperation (Perkumienė et al. 2019), and innovations (Machnik and Lubowiecki-Vikuk 2019). As Medhekar (2014, p. 102) remarks, such stakeholders (as the government, medical industry, healthcare providers and facilitators, and tourism industry) "should move towards a more equitable and consumer-centered healthcare and medical service provision to international as well as



Sustainable Medical Tourism: Conceptual Framework, Fig. 2 Main issues connected with sustainable medical tourism development. (Source – the author's own study)

domestic local patients, as part of an overall effort to improve the quality of health care delivery in a timely manner, at an affordable cost, short waiting period, along with providing safety, privacy with clean hygienic public facilities and world class quality of healthcare facilities treatment, country infrastructure and tourism facilities." The local community is a very important participant who should be involved in all decisions connected with medical tourism development in any destination. In the modern model of medical tourism development, wealthy societies' members participating in medical tourism, driven by prosustainable attitudes, should positively affect

the sustainable development of medical tourism destinations (instead of only taking care about their own health as is frequent nowadays). In consequence host communities will also benefit from medical tourism development. In the perspective of time, while ensuring strategic arrangements and taking care of three pillars of sustainability, current social and financial inequalities could at least be reduced or even balanced (Fig. 3).

Sustainable Medical Tourism: Conceptual Framework, Table 2 Sustainable aspects of the development of medical tourism in terms of previous scientific research

Pillars	Conclusions from the research	Authors
Economy	Medical tourism development in consolidation of the "Certification in Sustainable Tourism Program"	Bristow et al. (2011)
	Possibilities of ineffective use of limited public resources to support the development of the medical tourism industry	Johnston and Crooks (2013)
	Central and Eastern Europe region is a sustainable medical tourism destination choice for the citizens of Western Europe	Lubowiecki-Vikuk and Dryglas (2019b)
	Decreasing public health funding in developing countries that experiment with tourism-related patterns of healthcare system commercialization	de Castro et al. (2015)
	Governments would have to ensure that tax revenues generated from healthcare tourism are reinvested in healthcare development initiatives Then residents are likely to notice concrete benefits from this sector	Yim (2005)
	Sustainable medical tourism is important because companies and regions that create significant value have a positive economic impact on the development of the tourism sector and the surrounding area	Perkumienė et al. (2019)
Society	Access to a local community living close to medical tourism services for healthcare	Bristow et al. (2011)
	Facilitators' cooperation perspectives in sustainable medical tourism should be highly beneficial for participants and medical tourists	Inelmen et al. (2015), Perkumienė et al. (2019), Jackson and Barber (2015)
	Healthcare tourism has the potential of transferring healthcare problems associated with the developed world to the developing world	Vijaya (2010)
	Healthcare systems in EU countries may be more effective for medical tourists than for residents	Androutsou and Metaxas (2019)
	Good quality of treatment, trademarks, famous doctors, and intellectual property as a driver for sustainability in medical tourism	Bolos (2013)
Environment	Ways to properly remove and dispose of medical waste that "threatens local water supplies and the public health of nearby residents"	Bristow et al. (2011), Bungau et al. (2015), Perkumienė et al. (2019)

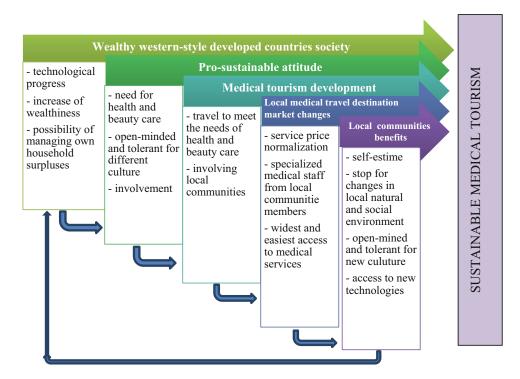
Source: the author's own study

Conclusions

As Perkumienė et al. (2019) pointed out, the development of sustainable medical tourism is influenced by major factors such as globalization, global competition between countries, technological variety, different economic and health systems, modern information technologies, policy, and legislation. Instead of developing and sharing the idea of sustainability, the medical tourism phenomena often provoke many controversies. To overcome these ethical issues, it is

suggested that a stakeholder-driven collaborative approach is adopted by destinations to leverage healthcare tourism resources while ensuring that all related stakeholders benefit in a sustainable manner (Jackson and Barber 2015, p. 25).

As already mentioned, many researchers claim that medical tourism can be (or is) sustainable mainly due to financial benefits. That is by far not enough. Such an approach makes one begin to doubt whether this is not just a business. If medical tourism is not going to sustain its development, it will only deepen existing differences and injustices between the richer and poorer



Sustainable Medical Tourism: Conceptual Framework, Fig. 3 A conceptual model of the development of sustainable medical tourism. (Source – Machnik and Lubowiecki-Vikuk (2019) with changes)

parts of the global community. It is crucial to implement the principles of sustainable development into all forms of tourism, including medical tourism, as well as into all enterprises using innovative solutions.

Cross-References

- ► From a Utilitarian Universal Health Coverage to an Inclusive Health Coverage
- ► Tourism & Health: Understanding the Relationship
- ► Tourism and Health, Risks and Challenges

References

Adams K, Snyder J, Crooks VA et al (2017) Developing an informational tool for ethical engagement in medical tourism. Philos Ethics Humanit Med 12:4. https://doi.org/10.1186/s13010-017-0045-9

Androutsou L, Metaxas T (2019) Measuring the efficiency of medical tourism industry in EU member states.

J Tour Anal 26:115. https://doi.org/10.1108/JTA-02-2019-0006

Boguszewicz-Kreft M, Sokołowska K, Magier-Łakomy E et al (2019) The country of origin of services and consumers as the determinants of purchase intentions in medical tourism. JEEMS 24:464–481. https://doi.org/10.5771/0949-6181-2019-3-464

Bolos MD (2013) Intellectual property as a drive for sustainable medical tourism – the Ana Aslan case. Nang Yan Bus J 2:123–130

Bristow RS, Yang WT, Lu MT (2011) Sustainable medical tourism in Costa Rica. Tour Rev 66(1/2):107–117

Bungau S, Suciu R, Bumbu A et al (2015) Study on hospital waste management in medical rehabilitation. Clinical Hospital, Baile Felix. J Environ Prot Ecol 16:980–987

Butler RW (1999) Sustainable tourism: a state-of-the-art review. Tourism Geogr 1(1):7–25. https://doi.org/10.1080/14616689908721291

Cameron K, Crooks VA, Chouinard V et al (2014) Motivation, justification, normalization: talk strategies used by Canadian medical tourists regarding their choices to go abroad for hip and knee surgeries. Soc Sci Med 106:93–100

Cape Town Declaration of Sustainable Tourism (2002) International conference on responsible tourism in destinations, Cape Town

- Carabello L (2013) U.S. domestic medical tourism delivers sustainable tourism for America's cities and states. J Tourism Hospit 2:114. https://doi.org/10.4172/ 21670269.1000114
- Choi H (2015) Medical tourism. In: Jafari J, Hiao X (eds) Encyclopedia of tourism. Cham: Springer, pp 602–603. https://doi.org/10.1007/978-3-319-01669-6 129-1
- Connell J (2013) Contemporary medical tourism: conceptualisation, culture and commodification. Tour Manag 34:1–13. https://doi.org/10.1016/j. tourman.2012.05.009
- Crooks VA, Whitmore R, Snyder J et al (2017) "Ensure that you are well aware of the risks you are taking...": actions and activities medical tourists' informal caregivers can undertake to protect their health and safety.

 BMC Public Health 17:487. https://doi.org/10.1186/s12889-017-4442-1
- Crooks VA, Lanonté R, Ceron A et al (2019) "Medical tourism will...obligate physicians to elevate their level so that they can compete": a qualitative exploration of the anticipated impacts of inbound medical tourism on health human resources in Guatemala. Hum Resour Health 17:53
- de Castro L, Sy P, Gan J (2015) Medical tourism. In: ten Have H (ed) Encyclopedia of global bioethics. Springer, Cham, pp 1–9. https://doi.org/10.1007/978-3-319-05544-2 282-1
- Dłużewska AM (2019) Well-being versus sustainable development in tourism – The host perspective. Sustain Dev 27:512–522. https://doi.org/10.1002/sd.1903
- Dryglas D (2018) Designing a health tourism product structure model in the process of marketing management. PWN, Warsaw
- Dryglas D, Lubowiecki-Vikuk A (2019) The attractiveness of Poland as a medical tourism destination from the perspective of German and British consumers. EBER 7:45–62. https://doi.org/10.15678/EBER.2019.070203
- Frenz M (2019) Introduction: medical tourism or movement for healthcare? Reflections on (international cross-border mobility. Glob Public Health 14:321–325. https://doi.org/10.1080/17441692.2018.1515971
- Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development (2019). https://unstats.un.org/sdgs/indicators/Global%20Indicator%20Framework%20after%202019%20refinement_Eng.pdf. Accessed 9 Sep 2019
- Horowitz MD, Rosensweig JA (2007) Medical tourism health care in the global economy. Physician Exec 12:24–30
- Horsfall D (2019) Medical tourism from the UK to Poland: how the market masks migration. J Ethn Migr Stud. https://doi.org/10.1080/1369183X.2019.1597470
- Inelmen K, Aydin B, Ulus M (2015) The sustainability of health organizations for our development. In: Kozak N, Kozak M (eds) Tourism development. Cambridge Scholars Publishing, Cambridge, UK, pp 132–147

- Jackson LA, Barber DS (2015) Ethical and sustainable healthcare tourism development: a primer. Tour Hosp Res 15:19–26
- Jadhav S, Yeravdekar R, Kulkarni M (2014) Cross-border healthcare access in South Asian countries: learnings for sustainable healthcare tourism in India. Procedia Soc Behav Sci 157:109–117
- Johnston R, Crooks VA (2013) Medical tourism in the Caribbean region: a call to considering environmental health equity. West Indian Med J 62:250–253
- Liu Z (2003) Sustainable tourism development: a critique. J Sustain Tour 11:459–475
- Lubowiecki-Vikuk A, Dryglas D (2019a) Central and Eastern Europe as a medical tourism destination: a case study of Poland. Almatourism J Tour Cult Terr Dev 10:25–43. https://doi.org/10.6092/issn.2036-5195/8199
- Lubowiecki-Vikuk A, Dryglas D (2019b) Medical tourism services and medical tourism destinations in central and Eastern Europe the opinion of Britons and Germans. Ekon Istraz 32:1256–1274. https://doi.org/10.1080/1331677X.2019.1627892
- Lunt N, Green ST, Mannion R (2012) Quality, safety and risk in medical tourism. In: Hall CM (ed) Medical tourism: the ethics, regulation, and marketing of health mobility. Routledge, Abingdon, pp 31–46
- Lunt N, Smith RD, Mannion R et al (2014) Implications for the NHS of inward and outward medical tourism: a policy and economic analysis using literature review and mixed-methods approaches. Health Servic Deliv Res 2:1–234. https://doi.org/10.3310/hsdr02020
- Machnik A, Królikowska-Tomczak A (2019) Awareness
 Rising of Consumers, Employees, Suppliers, and Governments. In: Leal Filho W, Azul A, Brandli L, Özuyar P, Wall T (eds) Responsible Consumption and Production, Encyclopedia of the UN Sustainable Development Goals. Springer, Cham, pp 1–15. https://doi.org/10.1007/978-3-319-71062-4 39-1
- Machnik A, Lubowiecki-Vikuk A (2019) Innovations in medical tourism against the paradigm of sustainable development background, chapter 9. In: Ratten V, Àlvarez-García J, de la Cruz del Río-Rama M (eds) Entrepreneurship, innovation and inequality: exploring territorial dynamics and development. Abingdon: Routledge, pp 132–160
- Mannion R, Davies H, Powell M et al (2019) Healthcare scandals and the failings of doctors: do official inquiries hold the profession to account? J Health Organ Manag 33(2):221–240
- Marinau C, Csosz I, Martin SC et al (2009) European experience in the field of health tourism, overview of the countries of Western Europe, Central and Eastern Europe. Agricult Manage 11:279–288
- Medhekar A (2014) Government policy initiatives for developing sustainable medical tourism industry. GSTF J Bus Rev (GBR) 3:95–105
- Meyers A (2019) Checklist for medical travel planning. Int Med Travel J. https://www.imtj.com/articles/checklistmedical-travel-planning/. Accessed 15 Jul 2019

- Mortimer F (2010) The sustainable physician. Clin Med 10:110–111
- Perkumienė D, Vienažindienė M, Švagždienė B (2019) Cooperation perspectives in sustainable medical tourism: the case of Lithuania. Sustainability 11:3584. https://doi.org/10.3390/su11133584
- Polas RH, Imtiaz M, Mahbub A et al (2019) Antecedent and consequences of risk perception on tourist decision making towards the sustainable medical tourism development in Bangladesh. J Tour Manag Res 6:93–108
- Reed CM (2008) Medical tourism. Med Clin North Am 92:1433–1446
- Runnels V, Carrera PM (2012) Why do patients engage in medical tourism? Maturitas 73:300–304
- Rutkowska M, Haczyński J (2017) Practical aspects of medical institution reorganization and implementation of the process of handling a foreign patient on the basis of own experience at medical travel partner. Probl Zarzadzania-Manage Issues 15:175–185. https://doi. org/10.7172/1644-9584.69.12
- Schmerler K (2018) Medical tourism in Germany: determinants of international patients' destination choice. Springer International Publishing, Cham
- Shaw CD (2015) How can healthcare standards be standardised? BMJ Qual Saf 24:615–619
- Snyder J, Crooks VA, Johnston R et al (2012) Beyond sun, sand & stitches: assigning responsibility for the harms of medical tourism. Bioethics 27:233–242
- Snyder J, Johnston R, Crooks VA et al (2017) How medical tourism enables access to care: four patterns from the Canadian context. Health Care Anal 25:138–150
- Suchdev P, Ahrens K, Click E et al (2007) A model for sustainable short-term international medical trips. Ambul Pediatr 7:317–320. https://doi.org/10.1016/j. ambp.2007.04.003
- Tarrant C, Leslie M, Bion J et al (2017) A qualitative study of speaking out about patient safety concerns in

- intensive care units. Soc Sci Med 193:8–15. https://doi.org/10.1016/j.socscimed.2017.09.036
- Thompson T, Ballard T (2011) Sustainable medicine: good for the environment, good for people. Editorial Br J Gen Pract 61:3–4
- Turner L (2010) "Medical tourism" and the global marketplace in health services: U.S. patients, international hospitals, and the search for affordable health care. Int J Health Serv 40(3):443–467
- Turner L (2012) News media reports of patient deaths following 'medical tourism' for cosmetic surgery and bariatric surgery. Dev World Bioeth 12:21–34
- UNEP, UNWTO (2005) Making tourism more sustainable: a guide for policy makers. UNEP, Paris
- Vijaya RM (2010) Medical tourism: revenue generation or international transfer of healthcare problems? JEI 44:53–69
- Voigt C, Laing JH (2013) A way through the maze: exploring differences and overlaps between wellness and medical tourism providers. In: Botterill D, Pennings G, Mainil T (eds) Medical tourism and transnational health care. Palgrave Macmillan, London, pp 30–47. https://doi.org/10.1057/9781137338495 3
- Walpole SC, Vyas A, Maxwell J et al (2017) Building an environmentally accountable medical curriculum through international collaboration. Med Teach 39:1040–1050
- WHO (2019) Promoting health through the life course. A life course approach to health, human capital and sustainable development. https://www.who.int/life-course/publications/life-course-brief-20190220.pdf? ua=1. Accessed 25 Aug 2019
- Woodman J (2015) Patients beyond borders: everybody's guide to affordable, world-class medical travel, 3rd edn. Healthy Travel Media, Chapel Hill
- Yim CK (2005) Healthcare destinations in Asia. The Asia case research center. University of Hong Kong, Hong Kong