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THE CONCEPT OF A MULTILEVEL MODEL OF UKRAINE'S CAPACITY AS A PLACE OF MEDICAL TOURISM: DEVELOPMENT FACTORS AND PROSPECTS

Vadym Viktorovych Bayev ¹
 Ivan Stepanovych Bakhov ²
 Olha Vasylivna Bezpala ³
 Kateryna Oleksandriva Veres ⁴
 Tetiana Vitaliivna Mirzodaieva ⁵

¹ National University of Food Technologies, Kyiv, Ukraine. baev11@ukr.net.

² Interregional Academy of Personnel Management, Kyiv, Ukraine. i.bakhov59@gmail.com.

³ Nizhin Agrotechnical Institute, Nizhyn, Ukraine. olgabezpala82@gmail.com.

⁴ National University of Food Technologies, Kyiv, Ukraine. ivaket@ukr.net.

⁵ National University of Food Technologies, Kyiv, Ukraine. mirzodaeva@gmail.com.

Abstract: *In the age of globalized medicine, medical tourism is gaining an important global perspective on health. The global medical tourism market is also following this trend; according to forecasts by Grand View Research, Inc., the size of the global medical tourism market is expected to reach \$179.6 billion by 2026. Medical tourism brings direct foreign currency income and contributes to the overall development of any economy. It ensures not only the creation of new jobs, but also the growth of associated enterprises such as those in the business of pharmaceuticals, medicines and tourism.*

Keywords: *tourism, medical tourism, model of medical tourism, a country's capacity in the field of tourism.*

INTRODUCTION

Problem statement

The main factors that increase the growth of the MT market are represented by the availability of better medical care, the latest technologies, innovative treatments, modern diagnostic tools, better housing and personalized care. Today, the healthcare sector is one of the fastest-growing clusters in the global economy. The article offers components of a multilevel model of choosing Ukraine as a place of medical tourism. Structural elements

and factors: of the country's capacity in the field of providing medical tourism services; of the choice of a city and the choice of a medical center for complex service of a medical tourist are identified.

Recent Research and Publications Analysis

A significant contribution to the study of theoretical and practical foundations of development and classification of medical tourism has been made through the work of such scientists as Fokina-Mezentseva K., Boretska, N., V. Yanyshvetska, M. Malska, D. Zohreh, O. Koval, and others. Analysis of scientific research and scientific-methodological work conducted by Baieva, O., Bakhov, I., Antonenko, I., Bayev, V., N. Holovach, L. Zgalat-Lozynska and others allowed to identify the main components that characterize the development of medical tourism and its basic components in the country of study. At the same time, a significant part of the issues related to the stated topic remains without consideration of researchers and needs further development, the development of a structured model of choosing a country as a place of medical tourism based on factor analysis and structuring.

PROPOSED METHODOLOGY

The purpose of article is to develop a multilevel model of choosing Ukraine as a place of medical tourism. This requires solving the following problems: ranking and capacity of Ukraine in the field of providing medical tourism services based on factor analysis of the country's capacity in the field of providing medical tourism services, the choice of city of treatment/health improvement and the choice of medical center.

RESULT ANALYSIS

The healthcare sector is one of the fastest growing clusters in the global economy. Based on a review of scientific research in the field of medical tourism (MT), expert opinions, government programs of countries leading in this field and the conclusions of producers of MT services, the author developed a multilevel model of choosing a country as a place of medical tourism with determining the influence of various factors for each level (Fig. 1). The ability to provide quality and competitive medical tourism services is ensured by the availability in a country of the necessary indicators, criteria and resources, such as: potential for the development of medical tourism in the host country; availability of human, natural and technological resources; safety of stay of tourists, ecological stability of the region.

The Global Healthcare Travel Council (GHTC) believes that Ukraine is very attractive for foreign investors and offers assistance in investing in healthcare facilities and reforming the industry (Baksheev et al, 2020). It is worth noting that Ukrainian clinics are rapidly gaining popularity in the global medical tourism market due to a combination of affordable prices and high quality of their services. Experts emphasize that the cost of Ukrainian medical services is much lower than that of similar ones in highly developed countries, while being not inferior to them in quality and level of comfort at many foreign clinics (Ukrainian Association of Medical Tourism (UAMT), n.d). In addition, in the eyes of foreigners, an important advantage for treatment in Ukraine is lack of queues for treatment and provision of medical services, which allows foreign patients to receive

timely care in full. The development of medical tourism is facilitated by sufficient development of medical services, coordination support services as well as English-speaking staff (Bayev, 2015b).

Thus, according to The Travel & Tourism Competitiveness Report 2019, Ukraine ranks 78th in The Travel & Tourism Competitiveness Index out of 140 countries of the world with 3.7 points, along with countries such as Jamaica, Sri Lanka, Armenia, Kazakhstan, Namibia (all 3.7 points), and takes the 70th place in the ranking of Travel & Tourism Policy and Enabling Conditions with 4.5 points, along with countries such as Poland, Turkey, Tunisia, Sweden, Belgium, Taiwan (China), Jordan, Romania, Tanzania, Jamaica, India, being, with this showing, ahead of such countries as Italy (the 75th place, 4.4 points), United Kingdom (the 77th place, 4.4 points), Russian Federation (the 105th place, 4.2 points) (World Economic Forum, 2019).

Ukraine's low rating, according to this indicator, is due to the fact that it is impossible to create a positive image of a country in this area without a consistent public policy and promotion on the world stage. There are also a number of "homework" tasks the accomplishment of which is necessary for the development of medical tourism. Proper equipment of clinics, compliance with the best standards, approval of clinical protocols, presence of clearly established tariffs for medical services, good conditions of stay at public hospitals - all this will stimulate the creation of a full-fledged inbound medical tourism industry in Ukraine, which currently does not exist (Ternova: 2019). The second factor of Ukraine's ability to provide medical tourism services is the availability of necessary human resources (Fig. 1). Domestic and foreign scientists consider that staff is one of the main factors in the development of MT in the long run.

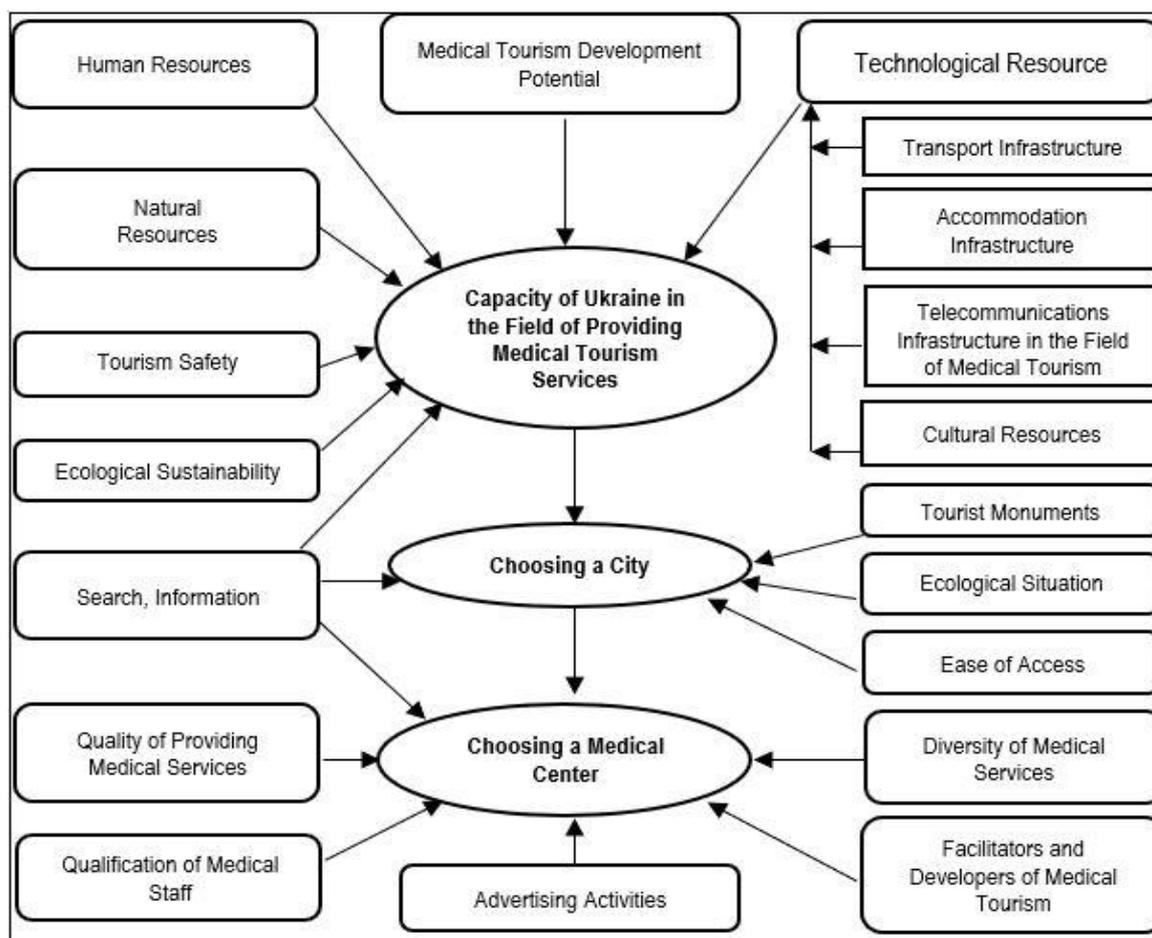


Figure 1. Multilevel model of choosing Ukraine as a place of medical tourism (author's scheme based on (Shahrokh et al., 2017))

According to The Travel & Tourism Competitiveness Report 2019, as for Human Resources and Labor Market, Ukraine ranks 48th out of 140 countries with 4.8 points, along with countries such as Chile, Malta, Montenegro, Armenia, Poland, being, with this showing, ahead of such countries as Greece (the 59th place, 4.7 points), Italy (the 63rd place, 4.6 points), India (the 76th place, 4.5 points), Turkey (the 97th place, 4.2 points) (World Economic Forum, 2019). The World Economic Forum assesses human resources in terms of education and training; availability of qualified labor resources in a country; quality of the education system; availability of national specialized scientific research and educational institutions; degree of staff training; hiring and firing practices, etc.

Ukraine has highly educated medical specialists certified according to ISO clinic standards, but, unfortunately, there is lack of professional producers - intermediaries of MT services (Ukrainian Association of Medical Tourism. Activity, n.d). Indicators of natural resources of a country - producer of medical tourism services, are also of leading importance (Fig. 1). Natural recreational resources are divided into balneological, phytotherapeutic, landscape, climatic, beach resources and speleological resources (Malska, 2008). Ukraine's natural resources determine its tourist and recreational potential. There are important balneological regions in the territory of Ukraine: in the Carpathian region, there are more than 200 springs and wells of mineral waters; about 600 springs and wells are located in Transcarpathia; they have healing and health-improving properties recognized worldwide.

In Ukraine, there are significant deposits of therapeutic mud as well as ozokerite deposits. Mountain recreational resources of Ukraine are concentrated mainly in Ternopil, Khmelnytskyi, Chernivtsi, Lviv and Ivano-Frankivsk Oblasts (Kuzik, 2011). Insufficient quality of the natural environment and of the technological resources of the field of tourism in Ukraine hinders the effective use of recreational natural potential and inhibits inbound tourism in Ukraine, so, in the ranking of The Travel & Tourism Competitiveness Report 2019, as for Natural Resources, Ukraine ranks only the 116th place out of 140 countries with 2.2 points, together with such countries as Angola, Eswatini, El Salvador, Jordan, Singapore, Lesotho, North Macedonia, Azerbaijan (all of them have 2.2 points) (World Economic Forum, 2019).

Not the last role not only in the development of medical tourism, but also of tourism in general, is played by the safety of tourism (Fig. 1). According to The Travel & Tourism Competitiveness Report 2019, as for Safety and Security, Ukraine ranks only 107th out of 140 countries with 4.8 points, along with countries such as Burkina Faso, Haiti, Burundi, Thailand, Egypt, Lebanon (all of them have 4.8 points). This indicator consists of such components as: general level of security; expenses for fighting crime; police reliability; level road traffic accidents; expenses for combating terrorism; quality of the natural environment; rate of mortality from infectious diseases; attitude of the population toward foreigners.

The main negative factor in this rating is the activities of the Joint Forces Operation in the east of Donetsk and Luhansk Oblasts and the annexation of Crimea in Ukraine. Without the ecological sustainability of a region, the stay of medical tourists becomes impossible (Fig. 1). World Economic Forum analyzes the ecological sustainability of a country according to indicators that characterize state regulation in this area: rigidity of environmental regulation; compliance with environmental regulations; ratification of environmental conventions. In this case, when calculating the general indicator of ecological stability, data characterizing ecological condition in the country are taken into account: emissions of carbon dioxide and concentration of solid particles in air.

In order to describe environmental sustainability, experts of Yale Center for Environmental Law and Policy annually calculate the Environmental Performance Index. Ukraine ranks 114th in the rating of The Travel & Tourism Competitiveness Report 2019 with 3.9 points, along with countries such as Islamic Rep. of Iran, Mexico, Guatemala, Trinidad and Tobago, Cyprus, Mauritania, Tajikistan (each of them has 3.9 points) (World Economic Forum, 2019). The technological resource of a country is the most important condition for the development not only of medical tourism and tourism in general, but also of the state.

Thus, according to the author's scheme given in Fig. 1, the technological resource of a country providing medical tourism services consists of: transport infrastructure; accommodation infrastructure; telecommunications infrastructure in the field of medical tourism and cultural resources. The transport infrastructure of a country - producer of medical tourism services is one of the most important ones. The formation of a developed transport infrastructure at the national and regional levels contributes to the development of system of tourist zones of medical tourism. The main global trend in the development of modern transport system is associated with improving the quality of transportation, comfort and safety of travel (European Commission, 2020).

In Ukraine, there is a positive trend in the provision of transport services for travel. However, most experts and scientists note, on the one hand, inefficient use of the transport potential, and on the other hand, a significant level of the depreciation of fixed

assets of infrastructure (up to 70%), insufficient capacity of seaports and the railway network, underdeveloped system of international transport corridors, inconsistency of the transport operation characteristics of roads with modern requirements (Butko, Aleshugina, 2009). The general indicator of quality of land transport infrastructure is analyzed by experts of the World Economic Forum based on the following components: quality of roads; quality of railway infrastructure; quality of port infrastructure; quality of land transport network; road density/1 million population and fuel prices in the country.

In the rating of The Travel & Tourism Competitiveness Report 2019, as for Air Transport Infrastructure, Ukraine ranks 71st in the ranking of 140 countries with 2.7 points, along with such countries as Romania, Bulgaria, Kenya, Kazakhstan, Jordan (all have 2.7 points), being ahead of countries such as Kuwait (77th place, 2.6 points), Lithuania (83rd place, 2.5 points), Slovak Republic (113th place, 2.0 points). Tourist transport services in Ukraine are provided by 33 airports, but there is technical inconsistency of most of them with the requirements of the International Civil Aviation Association and the International Air Transport Association.

An increase in the main indicators of air transport infrastructure can be caused by the international tourist market due to the transport and geographical location of Ukraine. Through its territory, the transport connection of countries of the near abroad with countries of the Central and Southern Europe, the Middle East and Africa is carried out. In addition, communications of Western European, Scandinavian and Baltic countries with countries of the Caucasus, Central Asia, the Far East, China and India have been established. All participants of the transport and communication processes are interested in further development and strengthening of these ties. In Europe and Asia, a system of air transport corridors is being created, in which Ukrainian main air routes play an important role.

The geographical location of Ukraine determines the importance of quality of functioning of land transport for the development of the country's tourism industry. In the formation of a comprehensive tourist product when traveling up to 500 km. it is advisable to use vehicles, and when traveling from 500 to 1000 km. - railway transport. According to Ground and Port Infrastructure, Ukraine takes the 77th place in the ranking of countries with 3.1 points, along with countries such as Honduras, Islamic Rep. of Iran, Eswatini, Albania, Cape Verde, Romania (all have 3.1 points).

Thus, one can conclude that the development of tourism in Ukraine is possible only on the assumption of modernization and reconstruction of transport infrastructure in accordance with international standards and safety, which will create conditions for integration of the transport sector and road sector in the world transport system and contribute to the expansion of transport corridors of international and national importance. In a complex tourist product, a significant place is occupied by accommodation of tourists. The State Statistics Service of Ukraine (SSSU) divides collective accommodation into the following categories: hotels and similar accommodation and specialized accommodation. The latter include: sanatoriums and boarding houses with treatment; rest houses and boarding houses; centers and other recreation facilities.

The number of collective accommodation facilities (CAF) according to the SSSU for 2019: units - 4719, of which hotels and similar accommodation - 2777 units; number of places in a CAF: units - 300010, of which hotels and similar accommodation - 135327. The number of foreigners who stayed at collective accommodation facilities in 2018 was

798,881; most of them were citizens of the European Union (Germany - 55,563 persons, France - 21,145 persons, Italy - 22,298 persons, Great Britain - 34,501 persons, Poland - 74,351 persons); there were also citizens of China - 22675 persons, the USA - 71653, Canada - 25216, Turkey - 71957, Israel - 52544.

Unfortunately, there are no national statistics on the stay of just foreign medical tourists at accommodation facilities in Ukraine; but, according to the Ukrainian Association of Medical Tourism (UAMT), for treatment, our country was visited by almost 65 thousand medical tourists, with the number of tourists who visited Ukraine for the purpose of health improvement being more than twice as many as the indicators of medical treatment tourism. For example, the resort of Truskavets alone in 2018 received about 40 thousand foreigners, of whom more than 40% were guests from Poland (Ukrainian Association of Medical Tourism (UAMT): n.d). According to Tourist Service Infrastructure, Ukraine ranks 65th in the ranking with 4.3 points, along with countries such as Armenia, Chile, South Africa, Hong Kong SAR (all have 4.3 points), being ahead of countries such as the Russian Federation (the 69th place, 4.1 points), China (the 66th place, 3.5 points), India (the 100th place, 2.8 points).

Telecommunication infrastructure in the field of medical tourism also significantly affects the overall potential of component of technological resource of medical tourism in a country. World Economic Forum analyzes the infrastructure of information and communication technologies in tourism based according to the following indicators: individual Internet users; number of landlines; public access to broadband Internet; number of mobile subscribers. Based on the above indicators, the general indicator of information and communication technology infrastructure in the field of tourism is calculated (INTMEDTOURISM.COM, n.d).

MT's telecommunications infrastructure includes means of receiving and transmitting data, which include communication equipment and software. They are used to exchange information about disease diagnosis, pre-treatment, recommendations of the attending physician, reservations, payments and other control messages between the patient, the mediator and the producer of medical services as well as means of transportation, accommodation, etc. In recent years, computer reservation systems (buying airline tickets; booking hotel rooms, booking travel packages and cruises, booking tickets for entertainment programs, etc.) have become especially developed, which provides an opportunity to significantly improve the quality of tourist services. A promising area for the development of tourism is the creation of virtual travel companies also for medical tourism.

The popularity of such global agents as Medigo, Medobal, DocDoc, Bookimed.com has expanded the scope of access to healthcare worldwide. Patients can access the details of medical procedures, find out the cost of treatment and get comprehensive treatment plans through clinics' websites. But, unfortunately, even the leading Ukrainian clinics that receive many foreign tourists are not present on these websites. Thus, the development of information and communication technology infrastructure in the field of medical tourism in Ukraine requires higher rates of development closely related to the activities of both the information technology of clinics - providers of treatment (health improvement) and specialized tourism enterprises, transport infrastructure and accommodation infrastructure, which is important to ensure the provision of quality medical services to the consumer. The development of information and communication technology infrastructure in medical tourism will increase the flow of inbound tourism.

Not the last role as a technological resource of medical tourism is occupied by cultural resources of the country of stay of a medical tourist. Historical and cultural tourist resources are a set of monuments of material and spiritual culture, which are objects of tourist interest (Malska et al., 2008). The World Economic Forum evaluates cultural resources of tourism in terms of the number of world cultural heritage sites; the number of sports stadiums; the number of fairs and exhibitions held in a country during the year. These indicators are used to calculate the general indicator that characterizes the cultural resources of a state. The list of UNESCO World Heritage Sites in Ukraine comprises 7 names, which is 0.7% of the total number of World Heritage sites in the world. Such objects include the Kyiv St. Sophia Cathedral, the Kyiv-Pechersk Lavra, the Church of the Savior at Berestove, the Ensemble of the Historical Center of Lviv, the Residence of the Metropolitans of Bukovyna and Dalmatia, the Ancient City of Chersonesos and others (UNESCO, 2008).

As for Cultural Resources and Business Travel, Ukraine ranks 55th out of 140 countries with 1.9 points, along with countries such as Pakistan, Azerbaijan, Saudi Arabia, Mongolia, ahead of countries such as Israel (the 64th place, 1.7 points), Cyprus (the 69th place, 1.7 points), Malta (the 80th place, 1.5 points) (World Economic Forum, 2019). "Search and information" is also a component of the model of choosing a country as a place of medical tourism (Fig. 1). The resource is included both in the parameter "Ukraine's capacity in the field of providing medical tourism services" and in "Choosing a city" and "Choosing a medical center."

The following basic information resources are directly related to both components of this model: The Global Healthcare Travel Council brings together medical tourism associations from more than 40 countries and is a guiding and coordinating platform for healthcare within a global system (<http://globalhtc.org>); Turkish Medical Tourism Association THTS is the largest association in the world, uniting 278 institutes of healthcare and health improvement tourism (<http://www.thtc-rsc.com>); UBI Medical Center is an international clinic of family and restorative medicine of premium class. UBI operates in the luxury segment (<http://www.ubi-clinic.com.ua>); Kozyavkin International Rehabilitation Clinic is involved in rehabilitation of patients with cerebral palsy and other lesions of the nervous system. The Clinic is located in Truskavets (Ukraine) (kozyavkin.com); Assuta (Israel) is a leading private network of hospitals and the largest surgical center in Israel (<http://www.ru.assuta.co.il>); EVEX Medical Corporation is the largest network of hospitals in Georgia currently represented by 54 clinics (evex.ge); The Munich Clinics Alliance (Germany) is a medical cluster that combines private, public and municipal clinics into a single integrated system (<http://www.kliniken-allianz.de>).

Also: Starnberg Multidisciplinary Clinic (Germany) (<http://www.klinikum-starnberg>); The Planeg Specialized Urology Clinic in Munich is one of the largest medical and diagnostic institutions of its kind in the federal state of Bavaria (Germany) (<http://www.klinika-uroplogiya>); Center for Children and Youth Medicine M1 (Germany) (<http://www.m1-privatklinik>); OCT OZMO Orthopedic Clinic (Germany) (<http://www.m1-privatklinik>); Vehbi Koç Foundation, part of the Koç Group, Turkey's largest one; Global Fortune 500 company (<http://www.kochealthcare.org>) and many others.

Unfortunately, there is still no single comprehensive information system that combines medical indications, clinics, service infrastructure, cost, etc. and makes it all available to all consumers of the market for the provision of medical services. Such a basic information system, which operates on many platforms, in classical tourism, could create

significant assistance to both consumers and all producers of medical tourism services. Thus, the second level of model of choosing a country as a place of medical tourism is the choice of a city. In medical and especially health-improving tourism, not the last role in choosing a city of stay is played by the tourist monuments of destination, the ecological situation and the ease of access.

As for Natural and Cultural Resources, Ukraine ranks 89th out of 140 countries with 2.1 points, along with countries such as Kazakhstan, Uruguay, Pakistan, Algeria, Cyprus, Tajikistan (all have 2.1 points), ahead of Israel (the 95th place, 2.0 points), Tunisia (the 100th place, 2.0 points), Montenegro (the 107th place, 1.9 points) (World Economic Forum: 2019). The ecological situation in the region also plays an important role in considering the destination of a medical tourist.

New Climate Institute, German Watch and Climate Action Network published the annual rating Climate Change Performance Index 2019, in which Ukraine took the 18th place (60.09 points). The fourth place in the ranking is occupied by Sweden, which received 76.28 points, Germany is in the 27th place (55.18 points), Russia – in the 52nd place (37.59 points), and the last, 60th place is held by Saudi Arabia that has 8.82 points. The first three places in the ranking are empty. The authors of rating explain that no country is doing enough to take the first, second and third place (Ministry of Environmental Protection and Natural Resources of Ukraine: (2018).

According to the results of an ecological rating of the regions of Ukraine, Chernivtsi Oblast is recognized as the most ecologically clean. The next 5 places in the ranking are occupied by Ivano-Frankivsk, Rivne, Ternopil, Zakarpattia and Volyn Oblasts. Donetsk and Dnipropetrovsk Oblasts are at the bottom of rating. In Donetsk Oblast, emissions are 29.6 tons per square kilometer, which is 74 times more than in Chernivtsi Oblast. And in Dnipropetrovsk Oblast, life expectancy for both sexes is 70.2 years, which is 3 years less than in the cleanest region of Ukraine (Visti Prydniprovia: 2019). The next factor in choosing the city of stay of a medical tourist is the ease of access. This indicator is especially true for the transportation or movement of foreign medical tourists.

As already mentioned, when considering the Transport Infrastructure of different countries, Ukraine has a good position, namely in terms of Air Transport Infrastructure – the 71st place, Ground and Port Infrastructure – the 77th place in the ranking of 140 countries (World Economic Forum, 2019). Ukraine has 20 airports. The largest passenger traffic in 2019 was shown by the following airports: Boryspil (Kyiv), Zhulyany (Kyiv), Lviv, Kharkiv, Odesa, Zaporizhia, Dnipro (State Aviation Service of Ukraine, n.d).

The number of transported passengers by mode of transport in 2019 is (the number of serviced tourists/passengers who were transported by foreign carriers is not included in this statistics) (State Statistics Service of Ukraine: n.d): Aviation - 13705.8 thousand; Railway - 154811.8 thousand; Automobile (buses) - 1804929.3 thousand; Maritime - 79.4 thousand; River - 589.9 thousand. Of course, almost 2/3 of the existing airports still need to be reorganized, roads are being built and repaired, and the railway needs its rolling stock to be renewed. Some sanatoriums and recreation centers, especially in the Carpathian region, are very difficult to reach. All these problems also affect the choice of a city for a medical tourist.

The last and, perhaps, the most important level of the model of choosing a country as a place of medical tourism is the choice of a medical center, which consists of the following factors: Diversity of medical services; Qualification of medical staff; Quality of medical services; Advertising activities; Facilitators and Developers of medical tourism. The main criterion for choosing Ukraine for medical tourism is the low level of prices,

compared to foreign clinics. And since we have medical centers (mostly specialized clinics) that provide treatment with top results, their services are in demand (Lepeshyna, 2018).

The main economic lever that contributes to the growth of international tourist travel in order to obtain quality medical services is the difference in cost of medical care at accredited clinics around the world. Studies conducted by the Medical Tourism Association have shown that patients can save up to 90% in some cases if they decide to be treated in another country (Abdulkadirov, Biryukov, Yudina, 2020). The cost of medical services at accredited clinics in Eastern Europe and Asia is 65-85% cheaper than at similar healthcare facilities in the UK and EU countries (Baiev et al.: 2019).

The second determinant of the growth of tourist flows in order to obtain medical care is the specifics of medical law in the countries where tourists live. Thus, in some countries, certain medical interventions are prohibited or restricted by law. These include: reproductive programs (IVF with surrogacy and/or donation), use of stem cells, organ transplanting, abortion, etc. Therefore, every year, hundreds of patients from medically prosperous countries of Western Europe (Germany, Italy, Sweden, France and some others) head for Ukraine (Bayev: 2015a).

Not the last role in the choice of a medical center is played also by the qualification of personnel. The leading clinics in Ukraine that provide services to foreign patients employ highly qualified medical staff: Doctors and Candidates of Sciences, doctors of the highest category, experienced nurses. Many of them speak foreign languages and have experience in occupational work abroad. The most important factor in choosing a place for treatment/health improvement is the quality of providing medical services. It is worth noting that Ukrainian clinics are rapidly gaining popularity in the global medical tourism market due to a combination of affordable prices and high quality of their services.

The implementation of ISO quality standards is an important stage in the activities of medical and health improvement facilities in Ukraine and shows a serious attitude toward the quality of services provided to patients. In addition, since 2014, the presence of the ISO 9001 certificate has become a mandatory requirement for medical and health improvement institutions to pass the accreditation procedure if they provide secondary (specialized) and tertiary (highly specialized) medical care (services) and apply for the highest accreditation category (Bayev: 2015a). Some clinics in Ukraine have passed, or are in the process of passing, the accreditation of the Joint Commission International (JCI) - the most objective and prestigious one that most leading operators in the medical tourism market orient to. JCI is an international joint medical accreditation commission registered as a non-profit organization based in the United States. For example, in December 2019, the Leleka Maternity Hospital (Kyiv, Ukraine) was inspected by an international joint commission and accredited by the Joint Commission International (JCI). It became the first hospital in Ukraine to be awarded the JCI Gold Medal of Quality.

The JCI certificate confirms the high quality of medical care. JCI accreditation is initiated by the medical institution itself, which has reached the level of world standards. Subjects of the accreditation are hospitals, outpatient organizations, clinical laboratories, rehabilitation centers, medical transport organizations; certain medical services pass the certification, too. JCI accreditation is the "gold standard" for evaluating the performance of medical institutions around the world (Bayev: 2015a). Diversity of medical services provided by clinics is a significant factor in choosing a medical institution. Many tourists want to undergo not only a treatment but also a comprehensive examination.

The main medical services used by medical tourists in Ukraine are: Surgical, with surgical intervention: angioplasty, heart bypass surgery, heart valve replacement, cycle with transfer of cryopreserved embryos, biliary surgery, duodenal section, etc.; Cosmetic services with surgery: blepharoplasty; liposuction, breast augmentation, lipografting, rhinoplasty, etc.; Cosmetic services without surgery: injections of Botox and its analogues, fillers based on hyaluronic acid, removal of unwanted hair, chemical peels, laser facial rejuvenation, etc. (Baiev et al.: 2019).

Dental tourism in Ukraine deserves special attention. Dental tourism is the provision of services for dental care, dental prosthetics and cosmetic dentistry. In most countries of the world, citizens do not have dental insurance, or health insurance covers only part of the dental care costs. Even for people with health insurance, dental treatment can be quite expensive, especially when it comes to dental implants, crowns and cosmetic dentistry that are not covered by insurance. In many European countries, even with dental insurance, the full cost of dental services can be very high (Health tourism: n.d). Spa tourism in Ukraine, where trips are made to sanatoriums for treatment/health improvement mainly through natural therapeutic physical factors (climate, mud, mineral waters, etc.), in combination with physiotherapy, medical nutrition, etc. is gaining popularity, especially among tourists from Eastern Europe (Health tourism. (n.d).

The advertising activities of a medical center (Fig. 1) become important for attracting medical tourists, especially foreign ones. Unfortunately, Ukrainian health resorts use mostly their own websites, sometimes providing information about their activities through the Ukrainian Medical Tourism Association (UMTA), which is a member of the Global Healthcare Travel Council (GHTC), and in 2020 also leads it. In Kyiv, under the auspices of the UMTA, annual exhibitions of medical and health improvement tourism "MTEC.Kyiv" are held - the largest in Ukraine and the most effective specialized event in the field of medical tourism, which brings together industry professionals to share experiences and increase business efficiency in the field of MT.

Facilitators and developers of medical tourism are organizations or companies that seek to bring a potential patient with a health care provider. Facilitators, in this case, are both tour operators, specialized travel agencies and individual departments or even individual specialists of a medical institution that provide information or a full package of services, offering services such as escort during flights, medical transfer (if necessary), accommodation at a hotel or other accommodation facility, translation services, etc. Facilitators may focus their services on a single health facility, a specific region or country. The service for a consumer is usually absolutely free; the income of facilitators comes in the form of referral fees directly from medical institutions. Usually, the amount is agreed in advance and can be 5-30% of the total medical bills. In many cases, international multi-specialized assistance companies act as facilitators.

CONCLUSION

The developed multilevel model of choosing a country as a place of medical tourism allows to determine the place of Ukraine in the world as a promising country for the provision of MT services. This model can be applied to each country based on the selected structure, modeling factors and its ratings in the World Economic Forum classifier according to the indicators selected by the author.

REFERENCES

- 1 Abdulkadirov, U.I., Biryukov, V.A, Yudina, E.V. (2020). Tourism industry development in the context of the Coronavirus (COVID-19) pandemic: response and recovery measures. *Revista Inclusiones*, 7(Especial), 23-33.
- 2 Baiev, V.V., Bakhov, I.S., Holovach, N.V., Zgalat-Lozynska, L.O. (2019). The Economic Determinants of the World Medical Tourism Industry Development. *Journal of Environmental Management and Tourism*, X(6(38)), 1392-1398.
- 3 Baksheev, A.I., Turchina, Z.E., Sharova, O.Y, Galaktionova, M.Y., Chesnokova, L.L., Rukavitsyna, E.A. (2020). Innovations in medicine: features of regulation and prospects for the development of telemedicine. *Revista Inclusiones*, 7(Especial), 447-459.
- 4 Bayev, V.V. (2015a). Certification of medical care providers as a factor in the development of medical tourism in Ukraine. In: Proceedings of the International scientific-practical conference "Actual problems of modern economy: the realities of today", March 6-7, 2015, Uzhgorod, Ukraine. Uzhgorod: Uzhgorod National University.
- 5 Bayev, V.V. (2015b). Modern trends in the development of medical tourism in Ukraine. *Agrosvit*, 7, 35-38.
- 6 Butko, M.P., Aleshugina, N.O. (2009). Transport infrastructure as a component of Ukraine's tourist potential. *Efektivna ekonomika*, 3. Available: <http://www.economy.nayka.com.ua/?op=1&z=62>.
- 7 European Commission. (2020). Transport infrastructures - TEN-T What do we want to achieve? Available: http://ec.europa.eu/transport/themes/infrastructure/index_en.htm
- 8 Health tourism. (n.d). Available: <http://medvoyage.info/medtourism/health/>.
- 9 Intmedtourism. com. (n.d). Medical Tourism. Available: <http://www.intmedtourism.com/ru/medical-tourism/>.
- 10 Kuzik, S.P. (2011). Geography of tourism: textbook. manual for students. higher education instituitons. Kiev: Znannya, p.34.
- 11 Lepeshyna, O. (2018). Pro rynku v iznoho medychnoho turyzmu v Ukraini. *Medexpert*. Available: <https://www.medexpert.ua/ua/medichnij-zaklad/31-medichnij-zaklad/pro-rynku-v-iznoho-medychnoho-turyzmu-v-ukraini>.
- 12 Malska, M., Antonyuk, N, Ganich, N. (2008). International tourism and services. Kiev: Znannya.
- 13 Malska, M.P. (2008). International tourism and services. Ganych, Kiev: Znannya.
- 14 Ministry of Environmental Protection and Natural Resources of Ukraine. (2018). Ukraine is in the TOP-20 of the world in the ranking of climate policy. Available: <https://menr.gov.ua/news/32956.html>.
- 15 Shahrokh, Z.D., Brojeni, H.Z., Nasehifar, V., Kamalabadi, H.N. (2017). A Progressive Multilevel Model for Selecting Medical Tourism Destinations: A Qualitative Study. *The International Journal of Travel Medicine and Global Health*, 5(2), 60-68.
- 16 State Aviation Service of Ukraine. (n.d). Airports of Ukraine. Available: <https://avia.gov.ua>.
- 17 State Statistics Service of Ukraine. (n.d). Available: <http://www.ukrstat.gov.ua/>.
- 18 Ternova, S. (2019). Medical tourism in Ukraine: opportunities vs reality. *Vashe zdorov'ya*. Available: <https://www.vz.kiev.ua/medychnyj-turyzm-v-ukrayini-mozhlyvosti-vs-realnist/>.
- 19 Ukrainian Association of Medical Tourism (UAMT). Activity. (n.d). Available: <https://uamt.com.ua/UA/deyatelnost-uk/meropriyatiya-uk/mtec-kyiv-ukr.html>.

20 UNESCO. (2008). Examination of nominations and minor modifications to the boundaries of naturel, mixed and cultural properties to the World Heritage List - L'viv - the Ensemble of the Historic Centre (Ukraine). Decision 32COM 8B.69. Available: <http://whc.unesco.org/en/decisions/1530>.

21 Visti Prydniprov'ya. (2019). Named the cleanest region of Ukraine. Available: <https://vesti.dp.ua/nazvali-najbilsh-ekologichno-chistij-region-ukrayini/>.

22 World Economic Forum. (2019). The Travel & Tourism Competitiveness Report 2019. Availablet: <https://www.weforum.org/reports/the-travel-tourism-competitiveness-report-2019>.