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### **Research Article**

# Medical Tourism in the Thessaly Region, Greece: Hotel Managers' Attitudes, Opinions, and Perspectives

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Aim: Medical tourism is a flourishing industry. The study investigates hotel managers' opinions, attitudes, and perspectives regarding medical tourism policies in the Thessaly Region, Greece.

Method: A cross-sectional study was conducted from May 2020 to December 2021 via an anonymous, self-administered questionnaire. The study sample consisted of 114 participants (82% response rate).

Results: Only 10% of the hotels are involved in medical tourism and 60% are accredited. Furthermore, 70% of respondents believe that the regional tourism infrastructure (accommodation, catering, entertainment) is highly developed. Most health tourists originate from EU countries. As hotels' capacity increases, executives are more willing to invest in medical tourism. Funding initiatives and collaboration with banks are policies to be included in the priority setting of the Ministry of Tourism and Hotel/Tourism Associations. Conclusions: Hospitality providers willing to invest expressed mistrust towards public agencies and stated that the Hotel/Tourism Associations could mostly support their entrepreneurial initiatives. The policy framework to promote medical tourism is considered insufficient but holds potential for significant contribution to the region's development.

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## **1. Introduction**

Epidemiological and demographic changes on an international scale, the increasing mobility of people, and the provision of efficient networks have revealed medical tourism as a dynamically growing market with high potential<sup>[1]</sup>. Numerous countries and labor markets worldwide recognize the significant role of medical tourism in fostering both economic progress and social development<sup>[2][3][4][5]</sup>. Cooperation between the medical and tourism sectors enhances quality education, skilled labor, infrastructure, and promotes

competitiveness<sup>[6]</sup>. Globally, medical tourism is growing as an increasing number of travelers pursue top-tier treatments at reduced costs, often unavailable within their own countries<sup>[7][8][9]</sup>. Similar is also the point of Connell<sup>[10]</sup>, where medical tourism is a popular cultural phenomenon when people make a long journey in order to obtain medical, dental, and surgical services while vacationing. In recent decades, the boom in the medical tourism industry has given rise to a phenomenon known as 'reverse globalization,' wherein individuals, particularly from advanced countries, journey to medical facilities in underdeveloped countries to access specialized medical services<sup>[11][12]</sup> <sup>[13]</sup>. Hence, EU regulation in cross-border healthcare defines patients' rights in seeking medical treatment in another EU member state and being reimbursed accordingly<sup>[14]</sup>.

In this context, this study aims to investigate the potentials of medical tourism in the Thessaly region, in Greece. Specifically, it evaluates the attitudes, opinions, and perspectives of the hotel managers regarding the policies associated with medical tourism in the region.

## 2. Literature Review

A growing number of patients seek cross-border healthcare in order to combine health services with tourism. Medical tourism encompasses the provision of a broad spectrum of clinical, ancillary, preventive, diagnostic, curative, and rehabilitation services for improving or restoring individuals' health state<sup>[15][16]</sup> [17][18]. The quality of the health services delivered, the high qualification of medical staff, innovation, infrastructure, and cost-effectiveness have contributed to the enhanced globalization of medical tourism. The quality of health care depends primarily on operational and technological adequacy, while quality assurance by providers is essential and typically achieved through accreditation by international organizations<sup>[19][20]</sup>. In addition, the demand is driven by considerations like reduced waiting times, confidentiality, privacy, and access to procedures unavailable in individuals' home countries<sup>[21][10][22][23]</sup>.

Specific Asian countries, particularly Thailand, Malaysia, and India, have been recognized as three of the world's leading destinations for medical tourism, with expertise in cosmetic and coronary bypass surgery<sup>[24][25]</sup>. Countries in Central and Eastern Europe, including Hungary, Croatia, Latvia, and Lithuania, are well known for dental care and plastic surgery<sup>[15][26]</sup>. Hungary and the Czech Republic hold the lead in inbound medical tourism spending, at 6.7% and 3.8%, respectively<sup>[5]</sup>. Moreover, Jordan and the Middle Eastern region specialize in treatments for female infertility, in vitro fertilization, and managing high-risk pregnancies<sup>[11][22]</sup>.

Medical tourism supply chains incorporate the cooperation and synergies among numerous sectors like healthcare, lodging, transportation, travel agencies, insurance, and accreditation services' providers<sup>[27][28]</sup> <sup>[29]</sup>. The cooperation among all sectors, especially between health and tourism, plays a vital role in the expansion of medical tourism<sup>[30][31]</sup>. Meeting the standards mandated by legislation, high-quality

accommodations and luxury hotels are essential prerequisites for participating in the medical tourism chain<sup>[32][33]</sup>. Typically, health tourism hotels operate for 12 months of the year and include spa services, weight reduction, smoking and alcohol cessation, stress reduction, skin treatments, and other services such as physiotherapy, hydrotherapy, fitness, wellness and beauty services, as well as medical examinations with contracted medical centers. It is noted that ancillary services are of great importance in the choice of tourist destination and, as a result, determine the future development of medical tourism<sup>[34][35]</sup>.

In the last decade, medical tourism has been characterized by rapid development in many demanding and emerging destinations globally. From 2000 to 2017, there was a significant surge of 358% in expenditure on medical tourism services internationally, escalating from \$2.4 billion to \$11 billion. This rise equates to 1.2% of the overall expenditure on international tourism in 2017, a doubling from the 0.6% recorded in 2000<sup>[5]</sup>.

In Greece, tourism is a key element of economic activity, attracting millions of tourists and making the country one of the most visited in Europe and globally (ELSTAT, 2023). The comparative advantages of medical tourism on a national scale refer to the climate conditions and the available accommodation capacity with numerous high-quality hotels combined with the provision of well-organized health services both in the public and private health sectors<sup>[12]</sup>. In 2019, Greece held the 25th position in the medical tourism market, with tourists spending \$62 million on medical services<sup>[5]</sup>. A study conducted on medical tourism in Greece in 2014 showed that the country has numerous advantages to enter the international tourism competition, supporting national economic and social prosperity<sup>[36]</sup>. Another relevant study, conducted in 2012, revealed that cosmetic medicine, orthopedics and rehabilitation, dialysis, eye surgery, cardiovascular and fertility treatments are the most in-demand medical tourism services provided<sup>[37]</sup>. In both studies, it is also stated that the key elements fostering the planning and development of this very specialized alternative type of tourism, such as medical tourism, are the cooperation among private and public healthcare providers with health insurance schemes and the participating hotels, as well as easier access to healthcare, the continuity of care to patients in their country of origin, and the potential extension of health tourists' stay for medical reasons<sup>[37][33]</sup>.

# 3. Some previous studies in brief

There are many studies that focus on the research and examination of the two main sides of medical tourism services, the supply and the demand. Regarding the supply of the provided medical tourism services, Karadavi and Serdar<sup>[38]</sup>, by using interviews and executive evaluations, propose a framework conceptual model for medical services, while Han<sup>[39]</sup> examines the unique characteristics of healthcare hotels and how their effect on tourist perceptions. Zatori et al. [40] investigate how service providers can enhance memorable and authentic tourist experiences in on-site conditions, in the context of sightseeing tours. Based on scale development, the experience-involvement construct is introduced to measure on-site tourist experience. In addition, Mueller and Kaufmann<sup>[41]</sup>, using data from field research derived from 400 luxury hotels in Switzerland, investigate the level of quality of wellness provided services. On the demand side, Medina-Muñoz and Medina-Muñoz<sup>[42]</sup> examine the attributes that have major importance for tourists for wellness holidays in the Gran Canaria islands. Along the same line, Surej and  $Roy^{[43]}$  examine the push and pull factors that motivate tourists, while Padilla-Meléndez and Del Aguila-Obra<sup>[44]</sup>, using primary data via web and telephone surveys, examine the potentials of Costa del Sol in southern Spain. In a similar way, Dryglas and Salamaga<sup>[45]</sup> analyse motivation criteria to spa resorts in Poland by using a sample of 2,050 tourists through questionnaires. In a more recent study, Manna et al. [46] use a different approach; through regression analysis, they examine the socio-demographic profile of Italian tourists combining tourism with health perceptions. Finally, Mikulic et al.<sup>[47]</sup> use data from a survey-based study conducted among 1,331 wellness tourists who have engaged in wellness tourism activities at one of 28 hotels with wellness offerings and 10 spas in Croatia. Impact-asymmetry analysis and impact-range analysis are used to quantify the potential of individual wellness attributes to generate satisfaction and dissatisfaction among wellness tourists and to perform a classification of wellness attributes according to the three-factor theory of customer satisfaction

## 4. Method

hotels' executives in the Region of Thessaly, through the use of e-questionnaires on the Google Forms online platform. All 4- and 5-star hotels in the four prefectures of the region were selected due to their greater capacity for medical tourism infrastructure. According to the Hellenic Chamber of Hotels (HCH)<sup>[48]</sup>, 139 hotels are located in the Thessaly region, categorized as 4 and 5 stars<sup>[48]</sup>. Verbal consent has been requested by the research team, and the electronic questionnaire was sent after receiving approval from the Directorate of the hotel units.

### 4.2. Research tool

Literature review uncovered numerous questionnaires utilized in research on medical tourism; however, none were entirely aligned with the objectives of this study. Consequently, the questionnaire for this study was created by using analysis from previous studies of international and Greek literature, as depicted in Table 1. For example, the survey by Medina and Muñoz<sup>[42]</sup> examines the services and accommodation offered by different types of 5-star hotel centers. Regarding communication, collaboration, and cooperation practices, the study by Perkumienė<sup>[31]</sup> explores whether there is a lack of comprehensive information and whether common activities between facilitators are present. Moreover, prospects for future development are highlighted in the study by Sarantopoulos et al.<sup>[36]</sup>, emphasizing the willingness to invest. The questionnaire is structured into three sections: the first section addresses the operational and geographical characteristics of hotel units, the second section pertains to their relationship with medical tourism, and the third section focuses on policies aimed at bolstering medical tourism development in the area.

Prior to the official launch of the study, a pilot investigation was undertaken. The questionnaire was trialed with 10 representatives from hotel units to enhance the instrument and streamline the data collection process. Adjustments were made as necessary to address any limitations identified during the testing phase. Both face validity and content validity assessments were conducted on the pilot questionnaires<sup>[49]</sup>. However, the pilot questionnaires themselves were not incorporated into the final survey.

### 4.1. Research methodology and data

A cross-sectional empirical field research was carried out from May 2020 to December 2021, addressed to the

Variables	Studies
Characteristics of hotel units	[39][42][41]
Promotional activities	[42][36][33][50]
Collaborative efforts	[ <u>31][51]</u>
Accreditation status	[39][52][51]
Support from government bodies	[36][51]
Prospects for future development	[51][37][31][53][33]

**Table 1.** Literature review on medical tourism hotel providers

### 4.3. Statistical analysis

The collected data is analyzed using the statistical software SPSS 25, with a significance level of 0.05. Descriptive statistics are employed to present absolute numbers (N) and percentage distributions regarding the characteristics of hotel units, tourism and healthrelated questions, and policies supporting medical tourism. The questionnaire responses were collected using a Likert scale. Specifically, a five-point Likert scale was used for several questions, where responses ranged from 1 ("Not at all") to 5 ("Very much"). The remaining questions offered response options of "Yes," "No," and "Do not know/Do not answer." Since the analysis involved ordinal variables, a test of normality was not required. Inferential statistics are performed using non-parametric tests. Proportional comparisons in respondents' answers were assessed using Pearson's chi-squared test ( $\chi$ 2 test). The statistical significance of differences between two independent groups was evaluated using the Mann–Whitney U test, while the Kruskal-Wallis test was utilized for comparisons involving more than two groups.

### 5. Results

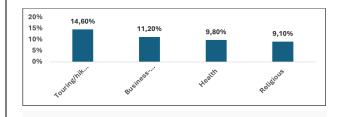
The final sample comprises 114 out of 139 questionnaires (82% response rate). Table 2 shows the hotel units' characteristics. The majority of the respondents come from the prefecture of Magnesia and hold the position of Director/Head of Department. Furthermore, the majority of hotels belong to the 4-star category, have been operating for 11 to 20 years, all year round, and their capacity is < 20 beds. In addition, 86.8% of hotels have less than 50 employees, and 62.5% are certified by an accreditation organization. Moreover, 48.2% of respondents stated that they have cooperation with healthcare providers, mainly with private clinics (38%) and private doctors (27%).

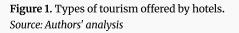
Location	Ν	%
Prefecture of Karditsa	11	9.6
Prefecture of Larisa	7	6.1
Prefecture of Magnesia	86	74.7
Prefecture of Trikala	11	9.6
Position		
CEO/ General Manager	38	33.3
Director/Head of Department	51	44.8
Other	14	12.3
Beds		
>20	52	45.6
21-50	27	23.7
51-100	25	21.9
<100	10	8.8
Seasonality		
Summer	22	19.1
All year	92	80.0
Don't know	1	0.1
Stars		
5*	23	20.0
4*	67	58.3
Don't know	25	21.7
Number of staff		
>50	99	86.1
51-100	12	10.4
<100	1	0.9
Accreditation		
No	18	16.1
Yes	70	62.5
Don't know	24	21.4

Table 2. Sample characteristics.

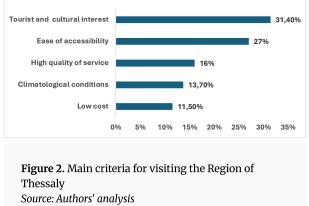
Source: Authors' analysis

As shown in Figure 1, the types of tourism offered by hotels are mainly touring/hiking, followed by businessconference and health tourism. However, there are other forms of tourism offered, such as cultural tourism (8.4%), gastronomic/wine tourism (8.4%), and sport tourism (7.8%). Health tourists served by hotels in the Region of Thessaly primarily originate from EU countries (59.1%). Other countries of origin are Israel (14.8%), Balkan countries (11.7%), the United States (6.25%), Asia (2.3%), and other (5.5%).





As presented in Figure 2, the majority of respondents mentioned the touristic-cultural interest and the easy accessibility as the main criteria for visiting the region. Furthermore, other criteria should not be underestimated, such as the high quality of services, climatological conditions, as well as low cost.



Additionally, it is important to note that approximately three-quarters of the hotels' executives (72.8%) believe that the regional tourism infrastructures, and especially accommodation, entertainment, and catering businesses, are significantly developed, and 64% stated that medical tourism can contribute positively to the economic development of the region. However, they expressed moderate optimism regarding the growth of medical tourism in the region over the next five years.

Regarding whether targeting medical tourism is a profitable investment, the respondents answered positively and are willing to invest in the field, as shown in Table 3.

	Investment in medical tourism supports the attraction of tourists to the hotel	Willingness to invest in medical tourism		
	N (%)	N (%)		
Yes	66 (57.9)	44 (38.6)		
No	24 (21.1)	36 (31.6)		
Don't know	19 (16.7)	31 (27.2)		

Table 3. Investment in medical tourism

#### Source: Authors' analysis

Accredited hotels (p=0.006) and hotels with a larger number of employees (p=0.033) show greater cooperation with private healthcare providers. Furthermore, 84.1% of hotels that are willing to invest in medical tourism believe that this kind of investment will increase tourist inflows (p=0.002). Also, as hotels' capacity increases, they are more willing to invest in medical tourism (p=0.002). As shown in Table 4, 77.8% of the respondents willing to invest in medical tourism highly assess its contribution to the economic development of the Region.

Investment in medical tourism supports the attraction of tourists to the hotel		Contribu	ition of me	dical tourism of the F		economic de	evelopment	Р
		Not at all	Slightly	Moderate	Very	Very much	Don't know	value
No	%	4.2	8.3	37.5	33.3	12.5	4.2	
Yes	%	0.0	3.0	18.2	37.9	40.9	0.0	0.021
Don't know	%	0.0	10.5	42.1	31.6	10.5	5.3	

Table 4. Contribution of Medical Tourism to the economic development of the Region.

#### Source: Authors' analysis

The Ministry of Tourism (55.3%) and the Hotel and Tourism Business Associations (54.4%) are identified as the main bodies that can contribute to and support the promotion of medical tourism in the region. Additionally, the Regional/Local Government (50.8%), the Ministry of Health (44.8%), and other related Ministries (35.1%) are also acknowledged by the respondents as significant contributors to their promotional efforts. Moreover, 91.2% of them declared that they promote their hotel internationally via the internet and social media (44%), touristic advertisements (36.7%), and conferences/exhibitions (19.2%).

As far as policies aimed at enhancing the expansion of medical tourism, the respondents mostly suggested actions related to funding initiatives and investments in facilities. More analytically, the proposed policies included additional funding for actions (83.3%), investments in facilities (81.2%), training seminar organization (70.2%), tax break offers (64%), the establishment of an electronic registry of health tourism providers (56.2%), collaboration with banks (49.1%), and the creation of a national medical tourism committee/council with representatives from ministries, agencies, and providers' associations (49.1%).

Statistically significant differences are found among the hotel units, the policies, and the bodies that can enhance medical tourism activity. The hotels that are willing to invest believe that the Hotel and Tourism Business Associations, as a body (p=0.001), will contribute to the promotion of medical tourism and that the integration of an electronic registry of health tourism providers, as a policy (p=0.036), can enhance medical tourism activity (Table 5).

•	Willingness to invest in medical tourismBodies contributing to the promotion of medical tourism		Policies that could boost medical tourism activity		
		Hotel and Tourism Business Associations	Creation of an electronic registry of medical tourism providers		
No	Mean value	3.31 (±1.41)	3.49(±0.95)		
Yes	Mean value	4.19 (±1.12)	4.07(±1.13)		
Don't know	Mean value	4.36 (±1.16)	4.03(±1.08)		
p value		0.001	0.036		

Table 5. Comparison of the willingness to invest in medical tourism with bodies and policies that would contribute to the promotion of medical tourism.

#### Source: Authors' analysis

Furthermore, participants who believe that medical tourism investments will increase tourist inflows proposed the creation of a national committee/council with representatives of ministries, agencies, and associations, as well as the integration of an electronic registry of health tourism providers, as the most useful tools (p=0.006). In addition, 5-star hotel respondents reported that central policy planning and support in medical tourism by the Ministry of Health (p=0.007), Ministry of Tourism (p=0.019), other Ministries (p=0.001), local authorities (p=0.002), and the hotel associations (p=0.011) is rather high, compared to the 4-star hotel respondents. Also, 5-star hotels are more optimistic about the future growth of medical tourism in the region (p=0.028)

## 5. Theoretical contribution

Our findings are in agreement with both Greek and international literature. The touristic and cultural interest, as well as the high quality of the services provided, are identified as the primary factors in promoting medical tourism in the Region of Thessaly. A Greek study on wellness tourism shows that treatments are gradually moving from the indoor environment to the natural environment, which confirms that the Region can attract medical tourists due to its exceptional natural environment<sup>[54]</sup>. Furthermore, numerous similar studies highlight the quality of medical tourism services and tourists' management, as well as the high-performance team skills and

cooperation between hotels and healthcare providers, as the most important drivers<sup>[52][27][55][31][56]</sup>.

Moreover, our study's finding that the promotion of medical tourism via digital tools is also found in a Greek research study stating that 84.2% of the hotels are promoted via the internet in Greece [36]. The same results converge with a study on medical tourism companies in Canada, showing that the internet is the most efficient and easiest way of promotion<sup>[50]</sup>. Additionally, similar research on health tourism providers in Spain, in 2016, revealed that the internet is one of the top marketing channels and the primary tourism information<sup>[44]</sup>. medical source of Furthermore, other Spanish studies point out that the design of a joint marketing strategy, including direct promotions to health tourists, could promote health and wellbeing tourism<sup>[42][57]</sup>.

In addition, numerous surveys focused on medical tourism providers and experts highlight the need for facility accreditation. Health tourists' personal security, privacy, and the highly trained professionals reduce the uncertainty in health services' quality and are in accordance with the findings of our study<sup>[58][7][39][41]</sup> [59]

In reference to the predominance of European medical tourists in the region, this finding is evident due to the EU's legal framework, which enables patients' rights in cross-border healthcare. This framework simplifies access to healthcare for health tourists and ensures reimbursement for care received abroad by their home country<sup>[60][61][36]</sup>. As far as the non-EU health tourists

are concerned, the existence of an international medical tourism insurance seems to be essential for both the providers and patients<sup>[15]</sup>.

Furthermore, numerous Greek studies argue that medical tourism makes a positive contribution to economic development at either the local or national level<sup>[53][62][63][51][36][37]</sup>. Moreover, international studies indicate that fostering medical tourism could serve as a policy for boosting overall tourism, strengthening local healthcare services, enhancing the economy, and augmenting tax revenues and employment opportunities<sup>[64][42][65][66]</sup>.

# 6. Practical contribution

Our findings have practical contributions for local and regional decision-makers and authorities regarding the planning and development of medical tourism in Greece, especially in the Thessaly Region, which is the study area. The research findings revealed that only 10% of the hotels are involved in medical tourism and 48.2% cooperate with private healthcare providers. Furthermore, 60% of the respondents consider that targeting medical tourism is a profitable investment, and 4 out of 10 are willing to invest in that field. The majority of health tourists visiting Thessaly originate from EU countries, favor the touristic cultural interest, the natural environment, as well as the high quality of services. As far as the development of tourism in general in the region, more than 70% of the respondents believe in the availability of the appropriate infrastructure. such as catering, entertainment, and hotel services.

Accredited hotels have a higher number of employees and gualified staff, cooperate with health units, and their executives believe that investment in health tourism will increase tourists' inflows in Thessaly. Moreover, as hotels' capacity increases, they are more willing to invest in medical tourism. Although the majority considers that the contribution of medical tourism to the economy of the region could be significant, only 5-star hotels and those willing to invest believe that there will be a growth in the sector in the next 5 years. Additional funding initiatives and investments, as well as collaboration with banks, are suggested as the main policies included in the priority setting of the Ministry of Tourism and the Hotel/Tourism Associations. Respondents willing to invest expressed mistrust towards public agencies and stated that hotel associations could mostly support their entrepreneurial initiatives. Those who believed that medical tourism investments would increase tourists' inflows proposed the integration of an electronic registry of health tourism providers.

# 7. Limitations

The study has certain limitations, including the absence of participation from <4-star hotels in the survey, which excludes perspectives from individuals in small hospitality businesses. Additionally, the survey results indicated low engagement with medical tourism in hotels (<10%), while simultaneously revealing a high intention among providers to invest in this sector, necessitating cautious interpretation of the findings within this context. Furthermore, the discrepancy between actual attitudes and provider views may have led to an overestimation of responses. Another limitation is that the research was focused on the Thessaly region rather than on national scope. Lastly, the study acknowledges potential subjective and biased responses associated with the use of a questionnaire, adding an extra layer of limitation to the research.

Despite the significant development of regional tourism infrastructure (70%), the low participation in medical tourism (10%) underscores the need for practical measures to promote its growth both in the region and across the country. Regarding governmental policies, establishing a National Committee for Medical Tourism could help streamline planning and decision-making at the national level. Additionally, fostering coordinated actions and synergies between the public and private sectors is essential for advancing medical tourism. Introducing favorable tax incentives and funding opportunities for investors is another key policy to consider. Furthermore, improving the procedures for facilitating the visit of medical tourists and their companions, especially from countries outside the European Union, is of paramount importance. In addition, ensuring high standards through certification and accreditation is critical, while ongoing education and training for healthcare and tourism professionals can further enhance service quality. Lastly, creating an electronic registry that tracks data on medical tourists, contracted doctors, and medical procedure costs would significantly contribute to the growth of medical tourism

This study stands apart from existing research on medical tourism as it is the first to examine the topic in the Thessaly region from the perspective of hotel managers. The findings from Thessaly closely reflect the broader national landscape and underscore the pressing need for the development of a national strategy for medical tourism. Therefore, additional research extending to other regions of Greece is essential to gain a more holistic understanding of the opportunities and challenges facing the country's medical tourism sector.

### 8. Conclusions

Medical tourism activity in the Thessaly region is currently not extensive; nevertheless, it holds potential for significant contribution to the region's economic development. Respondents from accredited hotels with more and qualified employees mostly cooperate with the private health units and believe that investment in health tourism will arise in tourists' inflows. Moreover, as hotels' capacity increases, they are more willing to invest in medical tourism. Additional funding initiatives and collaboration with banks are policies to be included in the priority setting of the Ministry of Tourism and the Hotel/Tourism Associations. However, hospitality providers willing to invest expressed mistrust towards public agencies and stated that the Hotel/Tourism Associations could mostly support their entrepreneurial initiatives. Those foreseeing increased tourist inflows due to medical tourism investments have advocated for the integration of an electronic registry of health tourism providers. This study demonstrates that regions with strong tourism infrastructure but limited engagement in medical tourism stand to gain significantly from targeted public-private partnerships, a model that could be replicated across other Mediterranean destinations. Enhancing policies and regulations could effectively capitalize on the region's potential, ultimately leading to greater socio-economic benefits and sustainable growth in medical tourism.

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