



## Challenges and Solutions in Medical Tourism at Iran University of Medical Sciences: A Qualitative Study

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### Abstract

**Background:** Iran University of Medical Sciences holds significant capacities and opportunities for entering various fields of international health services trade. Medical tourism, in particular, holds considerable potential for boosting the country's economy and enhancing its healthcare system. This study aimed to identify the challenges in medical tourism at Iran University of Medical Sciences and provide solutions to enhance its growth.

**Methods:** This qualitative study was conducted using semi-structured interviews with purposive sampling in the years 2023-2024. Participants included 15 healthcare professionals and administrators involved in medical tourism. Data analysis was performed using thematic analysis, coding, and theming methods with ATLAS. TI software.

**Results:** The challenges related to health tourism include 8 main themes—including governance, service delivery, financing, human resources, monitoring and evaluation, technology and infrastructure, facilities, and information management—and 20 subthemes. The solutions, based on expert perspectives, include 9 main themes—including enhanced governance, improved service delivery, increased financing, better human resources, effective monitoring and evaluation, upgraded technology and infrastructure, enhanced facilities, robust information management, and Advertising and Marketing—and 24 subthemes. Key challenges identified include inadequate governance and limited technology and infrastructure, while proposed solutions focus on improving governance structures and investing in technology upgrades.

**Conclusion:** The study results indicated that health tourism requires interdisciplinary cooperation, necessitating appropriate policy-making. Medical treatments provided by hospitals, which have competitive advantages, should be promoted globally through advertising. Hospitals should provide amenities for patients and their companions—including facilities for financial transactions and currency exchange—to enhance comfort. Empowering human resources is highlighted as an effective strategy in this regard. The role of advertising and marketing in attracting foreign patients through social networks was also emphasized. Quality service delivery and its appropriate receipt are crucial aspects of healthcare services, and hospitals can assure patients of receiving quality services by obtaining accreditation.

**Keywords:** Health tourism, Challenges, Solutions, Qualitative Study

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### Introduction

According to the definition by the World Tourism Organization, tourism encompasses all activities undertaken by

tourists who spend less than 1 consecutive year away from their usual place of residence for leisure, work, and other

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#### ↑What is “already known” in this topic:

Medical tourism, in particular, holds considerable potential for boosting the country's economy and enhancing its healthcare system.

#### →What this article adds:

Health tourism requires intersectoral collaboration, and thus appropriate policymaking centered around the Ministry of Health is essential. Advertising and marketing play a crucial role in attracting patients, and the capacities of embassies can be leveraged to facilitate these relationships. Hospitals can ensure that patients receive services by obtaining certification for complying with all hospital accreditation standards. Future studies should focus on developing targeted marketing strategies and enhancing intersectoral coordination to further improve the medical tourism sector.

purposes (1). The tourism industry, as one of the highest revenue-generating industries globally, plays a significant role in the world economy (2). Among various types of tourism, health tourism is recognized as a key area in the global tourism industry, which has experienced growth in recent years. It is estimated that each health tourist generates 3 times the revenue of an ordinary tourist (3). Health tourism has flourished globally and in developing countries due to globalization and the liberalization of trade in healthcare (4). Medical tourism—a relatively new form of tourism—has seen significant growth since the late 1990s (5-6). Travel and tourism, which continue to evolve, represent the largest service industry in the world (7, 8). This industry increases the gross domestic product (GDP) in destination countries while significantly contributing to their government tax revenues (9).

Tourism is the main driver of economic growth in many countries. Its role in the socioeconomic development of countries is more evident today than ever before (3). Among various tourism sectors, health tourism is one of the fastest-growing segments of the tourism industry worldwide (10). Tourism is a sector with continuously increasing revenue (11). It constitutes a major part of many economies and significantly impacts human relationships (including intergenerational) and global international relations. Globally, tourism is regarded as a sector of extraordinary importance due to its significant benefits to the economy (12). Annually, it generates about 10% of the global GDP, making it the third-largest economic sector (13). In this context, it mainly performs a macroeconomic function by adding value and stimulating the socioeconomic development of a country, which translates into increased GDP (14).

In this era of globalized medicine, where international travel and online access to health information are readily available, medical tourism has become a significant issue for national healthcare systems and from a global health perspective (15, 16). Individual motivations for participating in medical tourism vary greatly and may include avoiding waiting times, reducing costs, improving quality, and accessing treatments that are unavailable, illegal, or not eligible for in their home country (17). Avoiding high healthcare costs, overcoming lack of insurance coverage, addressing shortages of facilities in one's own country, and combining treatment with vacation enjoyment are some of the reasons (10).

Collecting robust data on the scale of medical tourism remains challenging, and more empirical work is needed in this area (18-20). Numerous studies have examined the factors influencing health tourism. Key factors include cultural and religious compatibility (21), economic factors such as healthcare system costs (22), favorable exchange rate changes, proximity to the tourist's residence, affordability of hotel and airline prices, and overall ease of travel (23). The impact of medical tourism on destination and origin areas (24), patient satisfaction based on trust (25), health effects on the destination—including economic aspects, which play a decisive role in choosing a tourism destination—health behavior as a major part of human activities, and travel aimed at health recovery (14). However, the trend of medical tourism in Iran, like other parts of the

world, was disrupted in early 2020 due to the outbreak of the coronavirus disease 2019 (COVID-19). The COVID-19 crisis affected a wide range of businesses related to the tourism industry—including medical tourism. Travel restrictions caused by the pandemic and the redirection of hospital resources to treat COVID-19 patients created supply and demand shocks in the global health tourism market, significantly halting the cross-border trade of medical services (25). On the other hand, people's willingness to travel for treatment decreased due to fear and concerns arising from the pandemic (26).

Some destinations, especially in Asia, naturally become medical destinations due to competitive prices, medical expertise, mature healthcare systems, policies, financial mechanisms, and leisure resources (27, 28). These destinations attract tourists from developed countries and those with increasingly wealthy populations (29, 30). Currently, the main reason for patients traveling to Iran is the high quality of healthcare services, lower costs of medication and treatment compared with other regional countries, access to modern and advanced healthcare services and equipment, the presence of skilled and experienced healthcare professionals, a common culture and language, and the shortage or lack of equipment and experts in most source countries (31). The number of foreign patients treated in 2004 and 2005 was 12,000 and 17,500, respectively. According to the statistics of the General Directorate of Medical Tourism of Iran, official statistics confirm more than 300,000 foreign patients during the years 2017-2018. According to the Iran 2025 Vision Document (1404), it is predicted that 1,400,000 people will be attracted to medical tourism (32). Iran excels in areas such as basic and medical infrastructure, effective government support, a formulated health tourism development plan, macro and operational level coordination, and participation, having reputable healthcare service providers, and integrated promotion and marketing. However, it faces some challenges—including inefficient government support for medical tourism, lack of standardization in treatment costs and hospital accreditation, and cooperation (33). Some destinations, like Iran, benefit from low healthcare costs and sufficient capacity for skilled professionals, but they also face challenges in developing medical tourism. Iran's single-product economy, which is solely based on oil products, has brought many problems for the country, and severe fluctuations have always negatively affected Iran's economy. The health tourism industry is one of the factors mentioned in the national health map, aiming to increase healthcare financing from medical tourism revenues (34). Iran University of Medical Sciences, with 20 hospitals, a specialist human resources team, an international reputation, advanced facilities, and equipment in some hospitals, and high-quality services, has the potential to enter various areas of the international healthcare services trade. However, despite these capacities, it seeks to develop health tourism. Therefore, this research aims to identify challenges and provide solutions for developing tourism in the hospitals affiliated with the university.

## Methods

This qualitative study utilized a semi-structured interview approach to explore the challenges and solutions for developing health tourism in hospitals affiliated with Iran University of Medical Sciences. A purposive sampling method was employed to ensure the selection of participants with relevant expertise and experience. The study included 15 participants, comprising healthcare professionals, hospital administrators, and policymakers involved in the health tourism sector. The participants were selected based on their roles, backgrounds, and contributions to the field of health tourism. After the 13th interview, data saturation was reached, and 2 additional interviews were conducted to confirm this. Each interview lasted between 45 to 90 minutes and was recorded and transcribed for accuracy. Data saturation was determined when no new themes or insights emerged from the interviews, ensuring comprehensive coverage of the subject matter. Thematic analysis was used to analyze the findings, following a 5-step process—familiarization, identifying a thematic framework, indexing, charting, and interpreting. This method is specifically designed for the interpretive analysis of qualitative data. During the familiarization stage, a summary of each interview's content and context was created and reviewed multiple times to ensure accuracy. The interviews were transcribed, and various sections of the data were indexed using  $\geq 1$  thematic codes. These codes were continuously re-

viewed, refined, and finalized. Subsequently, the relationships between main and subthemes were identified and analyzed. The transcribed interviews were revisited, if necessary. The interpretation of the concepts was conducted through a process similar to the indexing stage. Data analysis began with themes derived from a comprehensive review and in-depth interviews and was conducted using ATLAS.TI software. To ensure the validity and reliability of the study, Lincoln and Guba's evaluation method (Credibility, Transferability, Dependability, Confirmability) was used. This method considers 4 criteria for assessment—credibility, transferability, dependability, and confirmability.

## Results

The challenges identified by experts in the field of health tourism comprise 8 main themes and 20 subthemes (Table 1) and the solutions include 9 main themes and 24 subthemes (Table 2).

According to the interviewees, several challenges impact the development of health tourism, predominantly stemming from deficiencies in policy-making, governance, and the enforcement of regulations. One interviewee (P 6) emphasized, "Lack of integrated policy-making is a significant challenge affecting health tourism. The absence of coordination between various government and private sectors often leads to fragmented and inconsistent policies. For ex-

Table 1. Challenges Identified by Study Participants

Main Theme	Subtheme	Subcategories
Weak governance and leadership	Policy-making and regulation	Lack of comprehensive policy-making, Absence of clear regulation and guidelines, Sanctions and international perspectives
	Lack of intra- and inter-sectoral coordination	Non-involvement of the private sector, Lack of coordination, Incoherent decision-making, Poor relations with institutions
	Structural challenges	Inappropriate structure, Presence of brokers and opportunists, Limited VIP unit capacity
	Cultural weaknesses	Customs, Language, Communication challenges, Misuse by individuals & brokerage
Weak service delivery	Poor quality of service delivery	High waiting time, Poor quality of care, Patient confusion
	Poor communications	Transferring patients from the public to the private sector, Personal patient acquisition, Doctor-patient communication breakdown, Follow-up costs
Weak financial resources	Poor patient follow-up	Lack of proper follow-up mechanisms, Absence of a follow-up platform
	Issues with international insurance	Financial relations between patients and doctors, Lack of international accreditation mechanisms
	Inappropriate payment system	Tariff challenges, Inadequate payment system for staff, Unfair payment schedules, Conflicts of interest, Lack of insurance cover
Weak human resources	Poor financial transactions	Foreign currency accounts, Currency exchange
	Human resource training weaknesses	Training and education deficiencies, Shortage of skilled and experienced staff, Low quality of graduates, Staff satisfaction and retention
	Poor skills	Foreign language proficiency, Lack of adherence to international protocols, Patient information registration
Weak advertising	Migration of medical staff	Brain drains, Nurse and Doctor migration
	Insufficient advertising	Failure to identify target market needs, Poor use of websites and social media, High advertising costs
Weak monitoring and evaluation	Supervision and accreditation	Lack of comprehensive data mining, Inadequate evaluation and monitoring structures, Lack of independent accreditation system
Weak technology and infrastructure	Physical structure and equipment	Lack of facilities for patient companions, High building wear and tear, Inadequate equipment supply
	Virtual infrastructure weakness	Software, Hardware
Weak facilities	Poor hoteling	Patient rooms, Companion rooms, Comfort equipment, Nutrition
Weak information management	Medical records weakness	Electronic registration, Translatability
	Lack of integrated information systems	Lack of system integration, Absence of document receipt and dispatch systems

ample, coordination among the Ministry of Health, Ministry of Tourism, and Ministry of Foreign Affairs is crucial to prevent conflicting policies."

**Governance and Leadership**

Interviewees highlighted the lack of intra- and intersectoral collaboration as a critical issue affecting health tourism. An expert (P 8) mentioned, "We lack intersectoral coordination. The process for foreign patients seeking medical visas is unclear, and even when operational, it took years to establish. Now, its status remains uncertain."

**Service Delivery**

Weaknesses in service delivery were identified as a significant barrier, encompassing subthemes such as inadequate service quality, communication breakdowns, and insufficient patient follow-up. Participant perspectives underscored these challenges: "Many treatment centers and hospitals lack international standards," noted one interviewee

(P 6). Another (P12) added, "Communication infrastructure issues in certain regions hinder effective communication between patients and healthcare providers, especially in remote areas."

**Financial Resources**

Financial resources were recognized as pivotal for health tourism development, directly influencing service quality, patient attraction, and economic sustainability. Issues such as payment systems, insurance coverage, and financial transactions were discussed. Regarding payment complexities, an interviewee (P 2) remarked, "Physicians receive higher fees, sometimes in foreign currencies, whereas nurses' bonuses may be affected differently."

**Human Resources**

The availability and quality of human resources emerged as critical concerns affecting service quality and patient satisfaction in health tourism. The migration of skilled medi-

Table 2. Solutions From the Participants' Perspective

Main Theme	Subtheme (Category)	Subcategory
Governance and management	Policy and Regulation	Developing tourism policies- Stakeholder engagement - Intra- and inter-sectoral health system relations- Learning from other countries' experiences - Laws and regulations
	Structural Design	Expanding the network of intermediaries - Increasing payments to intermediaries based on patient referrals over a specific period - Private sector participation
	Culture	Respecting the culture of other countries - Religious tourism
	University Support	Marketing and branding - Establishing patient dispatch centers - Intra- and inter-departmental coordination
Service provision	Developing Competitive Advantage	Specialized treatments- Advanced surgical methods
	Quality of Service Provision	Using guidelines - Independent accreditation - Enhancing patient safety measures - Providing rapid and transparent feedback to patients on their treatment progress
	Needs Assessment	Identifying patient needs- Evidence-based approaches - Listening to patients' voices
	Short-term Medical Services	Check-ups - Dentistry - Ophthalmology - Cosmetic surgeries
	Wellness Services	Diet plans - Herbal treatments - Massage - Traditional medicine - Preventive and health promotion clinics
	Laboratory and Basic Paraclinical Services	Blood tests - Imaging and radiology - Medical consultations
Technology and infrastructure	Reducing Admission Time	Establishing separate admission gates for foreign patients
	Equipment and Buildings	Adapting hospital design to changing technologies - Designing care models based on patient needs and preferences - E-health solutions and services - Virtual hospitals
Facilities	Hotel Services	Hospital hoteling - Companion accommodations - Patient amenities - Nutrition
	Critical Condition Facilities	Handling complaints - Patient death - Corpse transport - Death notification procedures
Monitoring and feedback	Performance Monitoring	Implementing and establishing comprehensive performance monitoring systems - Providing performance feedback - Hospital performance reports - Service quality assurance programs
	Strengthening Insurance Systems	Financial and currency exchanges - Enhancing insurance mechanisms
Health financing	Improving Reward Systems	Designing performance-based payment mechanisms - Incorporating foreign patient service provision into bonus allocation formulas - Including foreign patient satisfaction in bonus allocation formulas
	Cost Control	Developing systems to enhance cost control strategies - Optimizing resource utilization
	Balanced and Fair Training and Distribution	Developing human resource plans based on tourism needs - Providing foreign language training for interested medical and support staff
Human resource management	Skills and Competency	Training and retraining personnel - Enhancing staff participation - Considering language proficiency in new hires
	Recruiting Experienced and Reputable Physicians	Timely payments to physicians to encourage cooperation with the hospital - Higher payments to physicians to encourage cooperation with the hospital
	System Integration	Creating information infrastructure and standards - Developing integrated information systems for data collection - Developing standardized medical records systems in hospitals
Information management	Accuracy of Information	Transparency - Providing accessible information on quality, safety, and patient experience to patients, the public, and policymakers
	Effective and Active Marketing	Film advertisements - Brochures - Communication with country ambassadors - Treatment contracts - Advertising on international television channels

cal personnel was highlighted as a pressing issue. According to one interviewee (P 6), "*The shortage of experienced and English-speaking medical professionals poses a significant challenge. Many are leaving, which affects the availability of skilled personnel.*" Participants also cited language and cultural barriers as obstacles in delivering effective health tourism services. An international expert (P 5) emphasized, "*Language barriers are critical. Cultural understanding is essential, yet we often lack proficient translators and culturally trained staff.*"

### Monitoring and Evaluation

Challenges in monitoring and evaluation were noted—including inadequate tools, data mining capabilities, and independent accreditation systems aligned with international standards. An interviewee (P 7) highlighted concerns, "*The lack of independent accreditation systems can create conflicts of interest, hindering hospitals from meeting global standards.*"

### Technology and Infrastructure

Issues with communication infrastructure—such as unreliable networks and inefficient information systems—were identified as operational challenges. One participant (P 11) stated, "*The lack of adequate communication infrastructure disrupts healthcare operations.*"

### Facilities

The need for suitable accommodations near hospitals for patient companions was acknowledged as essential for supporting patients undergoing complex medical procedures. A participant (P1) stressed, "*Providing accessible accommodation for patient companions is crucial, especially for those undergoing lengthy treatments.*"

### Information Management

Effective information management—including comprehensive medical records and multilingual documentation—was identified as a critical area requiring improvement. One interviewee (P1) stated, "*We need complete medical records in English to better serve international patients.*"

### Discussion

The main conclusion of this study is that addressing the identified challenges is crucial for improving the performance of health tourism. The primary application of this research is to inform policy-making and improve intersectoral cooperation. For future studies, it is suggested to focus on developing integrated policies, enhancing service quality, ensuring financial transparency, and improving human resource management.

The study results showed that health tourism requires intersectoral cooperation, and appropriate policymaking should be centered on the Ministry of Health. The lack of comprehensive policy-making and clear regulations was highlighted as a major barrier. This finding aligns with previous studies, which emphasize the importance of cohesive policies in attracting medical tourists. For instance, Heung et al noted that macro policies and regulations can impede

the attraction of medical tourists (35). Competitive advantages in treatment services must be advertised globally. Hospitals should provide various amenities for patients and their companions—including facilities for financial transactions and currency exchange, and superior accommodations for tourists (standard patient beds and one companion, single, double, or triple rooms with advanced bathrooms, internet, satellite TV, refrigerators, and tea and coffee-making facilities). Empowering human resources is essential—including training nurses and reception staff in English and Arabic. In addition, these staff members should share in the revenue generated from treating foreign patients. A significant challenge identified was the shortage of skilled staff and the migration of medical personnel. This finding echoes previous studies, which stress the importance of experienced and skilled medical personnel in health tourism (36).

Advertising and marketing play a crucial role in attracting patients. Today, using social media is an easy method to showcase the country's medical capabilities through websites aimed at patient registration, information dissemination, and advertising, including videos, brochures, and testimonials from tourists who have received medical services in Iran (in English, Arabic, Persian, etc). Inadequate technological infrastructure and outdated facilities were highlighted as significant barriers. One interviewee mentioned this finding is consistent with previous research that underscores the importance of modern technology and facilities in health tourism.

The capacities of embassies can also be leveraged to facilitate relations with embassies and consulates in neighborhood countries, and others to promote and facilitate admissions, visas, and other matters related to health tourism.

The quality-of-service delivery is the most critical aspect of providing health services. Hospitals can ensure patient confidence in receiving services by obtaining certification for adhering to all hospital accreditation standards and monitoring patients until full recovery to achieve patient satisfaction, making the patients themselves ambassadors of health.

### Conclusion

Addressing the challenges identified in this study is essential for enhancing the performance of health tourism. Effective policy-making, led by the Ministry of Health, and intersectoral cooperation are fundamental to overcoming barriers such as the lack of comprehensive policies and unclear regulations. By establishing cohesive policies, enhancing service quality, ensuring financial transparency, and improving human resource management, health tourism can attract more medical tourists.

Promoting competitive advantages, modernizing technological infrastructure, and providing high-quality amenities for patients and their companions are vital steps. Empowering human resources—especially through language training and revenue-sharing incentives for medical staff—can address the skilled staff shortage and reduce personnel migration. Marketing through social media, alongside embassy cooperation to facilitate admissions and visas, is also crucial for building an international presence.

### Recommendations for Stakeholders

- **Policy-makers:** Developing cohesive policies and regulations that integrate health, tourism, and foreign affairs sectors to prevent fragmented and inconsistent policies
- **Healthcare Providers:** Focusing on improving service quality, ensuring patient satisfaction, and maintaining up-to-date facilities and equipment
- **Financial Institutions:** Developing robust payment systems and insurance mechanisms to support international patients
- **Educational Institutions:** Enhancing training programs to address the shortage of skilled personnel and reduce migration of medical staff
- **Technology Providers:** Investing in modern technological infrastructure and ensuring efficient information management systems
- **Marketing Agencies:** Developing targeted marketing and advertising strategies to attract health tourists from neighboring countries.

### Authors' Contributions

Conceptualization: N. H, A.B, R.Z. Methodology/formal analysis/validation: A.B, R.Z. Project administration: N.H. A. N. Writing the original draft: H.N., A.B., A.N. Writing, reviewing & editing: N.H., A.B., A.N, R.H.

### Ethical Considerations

This study was a part of the MSc thesis (code:162857579) that approved by Qazvin Islamic Azad University.

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### Conflict of Interests

The authors declare that they have no competing interests.

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