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# The Development of Health Tourism in Senegal's Coastal Region

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## Abstract

In less developed countries (LDC), health tourism can be seen as a way of specializing in tourism. Covid19 makes even more imperative the need to promote health tourism and also to link it to a greater extent to wellness tourism, thus responding to the current market requirements. The main objective of this study is to assess whether the current tourism offer in Senegal (LDC) could allow health tourism to be implemented. An ad-hoc study has been performed in Senegal's Coastal Region, where interviews directed at the socioeconomic agents and structured questionnaires have been developed, collecting information from the two populations: one sample of 21 private clinics and another of 31 hotels. The data obtained were analyzed following a descriptive analysis. The results indicate that it is possible the developing of wellness tourism, but not medical tourism. Even in the case of a labor-intensive product, offering health tourism as a new tourist product requires more modern and sophisticated technological equipment.

**Keywords**: Health tourism; medical tourism; wellness tourism; tourism product innovation; tourism development

## Introduction

Tourism and health are two sectors with great importance in the economic growth of countries. Indeed, health tourism has experienced a notable boom in recent years (Alsharif et al., 2010; Cheah & Abdul-Rahim, 2018; Zekavoti et al., 2023). Nowadays, there are many tourists who travel to other countries for health tourism, both in the medical category and in the wellness one. Actually, the share of health expenditures of tourists in total tourism income have increased over the years in many countries (Ceti & Unluonen, 2020). After Covid19 pandemic the trends within health tourism are affected by the increase of health awareness (Zsarnoczky, 2017). In fact, it is mandatory to have in mind that '…Covid19 is no ordinary shock to global tourism and has no analogue since the massive expansion of international tourism began in the 1950s' (Gössling et al., 2021:10). The turning point of the Covid19 crisis in the requirements



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of tourism markets implies a radical change of strategy when planning new tourism developments. This is why a growing in tourism numbers is no longer a recommended strategy, but an outdated perspective' (Gössling et al., 2021). At this respect, McKinsey and Company (2020) found that although consumer optimism will be higher at the start/end of the pandemic, they will be showing a greater interest in environmentally friendly products. In this sense and in a somewhat premonitory way Smith and Puczkó (2014) had already stated that the tourist has lost his/her natural way and seek it in wellness tourism.

At the same time, the Covid-19 pandemic is deepening social and economic inequalities in the world, and particularly in the developing countries. This explains that a new platform of research on justice and ethics is emerging in the literature to guide tourism and sustainability (Jamal & Higham, 2021). Therefore, a sustainable and just Covid-19 recovery requires identifying locally tailored solutions to build a new tourism strategies based on local interests (Rastegar et al., 2021: 2). For example, Sun et al. (2021) have studied the socio-economic impacts of the Covid19 pandemic in Indonesia, and found an employment vulnerability of women, youth and low-education workers more than five times higher than the national average.

According to the World Tourism Organization (1997: 5) 'tourism includes the activities carried out by people during their travels and stays in places other than their usual environment, for a consecutive period of time of less than one year, for leisure, business and other purposes'. In addition, health is understood, according to the Constitution of the World Health Organization (1946: 1), 'to be a state of complete physical, mental and social wellbeing, and, not only the absence of conditions and diseases'. A combination of these two concepts corresponds to a tourism product called health tourism that the World Tourism Organization (UNWTO, 1996: 39) defines as follows: 'Health tourism covers those types of tourism whose primary motivation is to contribute to physical, mental and/or spiritual health through medical and wellness activities that enhance people's ability to meet their own needs and function better as individuals in their environment and in society'. Other authors offer simpler definitions of health tourism such as people who travel outside their places of residence for health reasons (Branco-Bonfada at al., 2011: 463; García-Altes, 2005: 195; Henn-Bonfada et al., 2008: 418). Therefore, in relation to the conceptualization of the health tourism it is found in the literature a certain ambiguity.

Tourism and health, despite being part of two distinct ministries in most governments, are closely related socioeconomic sectors. Both are very important parts of public policies and have direct impacts on the socioeconomic life of populations, with tourism being an important factor in foreign exchange entering the national economy and health a key factor in the physical, mental and social wellbeing necessary for populations to be more productive at work. This might be the reason why Assaf et al. (2022: 455) in their article entitled 'Tourism during and after Covid19: An Expert-Informed Agenda for Future Research', includes among its recommendations for the future development of tourism activities, a point relating to the 'Quality of Life and Sustainability' focused on 'Examining the growing importance of health tourism'. In the same way Büyükozkan et al. (2021: 8) mention as opportunities of health tourism development the followings: 'Increased awareness of international health and new treatments' and 'Expansion of the health market'.

Traditionally, a wide variety of services and destinations on health tourism is available for consumers, and there are important differences in the health tourism offer by country. For example, in Asia it is focused on high-profit surgery while within the European countries it is more based on the traditions of the region (Zsarnoczky, 2017). In fact, with respect to the study of this tourist segment, it is possible to find a very unequal distribution of academic works, as reflected in an analysis carried out by Zhong et al. (2021). Specifically, the above authors find

that the vast majority of studies on health tourism are carried out by American, European or Asian authors; in order of the number of papers found, they are US, Canada, United Kingdom, Australia and South Korea; by most frequent universities, these same countries appear, in addition to Hong Kong. With respect to Africa, no country appears among the top of the previous list, although the frequency of papers related to South Africa is noteworthy (Boekstein, 2014; Henama, 2014; Mangwane & Ntanjana, 2019). In other North African countries, such as Morocco, wellness tourism is basically developed, and it is possible to find some references in the literatura (Ezaidi et al., 2007; Gagnol & Landel, 2016; Lamya Maghnaoui, 2021; Siddiqi et al., 2010). However, what is practically null is the presence in the literature of papers on the development of health tourism in the least developed countries (LDCs) of Africa, such as Senegal (UNCTAD, 2022). In this latter group of countries, researchers are faced with the added difficulty of having reliable statistical data on health tourism.

Therefore, in this paper, considering the difference between medical and health tourism, a methodology based on analyzing the information gathered from qualitative and quantitative procedures was carried out. An ad-hoc study has been performed in Senegal's Coastal Region, for which interviews directed at the socioeconomic agents and structured questionnaires have been developed, aimed at collecting information from the two populations studied: private clinics and hotels. This research is intended to study in depth the relationship between tourism and health from the perspective of possible future development of a new tourism product, health tourism. This approach is based on the idea that tourism diversification could have positive effects on the arrivals of tourists to a particular destination (Yap et al., 2022).

According to OMT (2001) in a tourist destination, the tourism offer constitutes more than the simple sum of the tourist products it contains, it represents a whole range of these products, the purely tourist and non-tourist services. Therefore, tourism rebound will be determined by differences in health infrastructure and strategies for safety not only in developed countries, but in developing ones, as well. As an evidence, Ceti and Unluonen (2020) have studied the particular case of Turkey and the results showed causality from 'domestic health and social work expenditures' to 'health tourism income', whereas the reverse is not true. Therefore, we can infer that a weakly developed health system will hardly constitute an adequate basis for the development of health tourism.

Having in mind the aim of offering the best possible destination for future tourists, there is a proposal made by Singh (2021: 3), he suggests the 'quixotic' (quick and exotic) tourism, this means: 'quick-to-reach and exotic natural or cultural heritage destinations, sites that are safer from Covid19 infection due to few, but high-paying distanced tourists – who, as in ecotourism, directly help local people'. This tourism is likely to flourish in the near to middle term, but after being given proper management, monitoring and support by policy makers.

Regarding tourism demand, this can be international or national. National demand, according to Eugenio-Martin and Campos-Soria (2011: 2519-20), has some positive effects as it helps retain the benefits within the country, and, on the other hand, it may also help to keep a balance between the growth of the regions within a country, transferring consumption from the richer to the poorer regions. International tourist demand can also be of great interest for a destination and is normally measurable from two indicators: frontier entries and overnight stays in officially approved accommodation (González & Moral, 1995: 750).

In this research, as a methodological approach and starting point, a distinction has been made between the demand side and the supply side to characterize the potential of 'health tourism' product in Senegal. In this country, tourism represents the second source of foreign exchange revenue, second only to fishing (Ministry of Tourism, 2016: 13). However, in Senegal's Coastal Region, at present, there is no formal tourism policy aimed at implementing

and developing such a product, which is why we intend to carry out this research with the main objective of evaluating the viability of its future implementation.

Thus, the main objective of this study is to assess whether the current tourism offer in Senegal could allow health tourism to be implemented. In addition, the study attempts to detect all the advantages that this country has to develop and implement such a tourism product in the future.

Specifically, we intend to analyze to what extent the variables referred to in the previous general objective will be facilitators of health tourism development processes in the Senegalese Coastal Region. Based on the above considerations, we propose the following specific objectives: describe the health and hospitality supply of the Coastal Region, in order to study it from the perspective of the potential to implement health tourism; analyze the possibilities of medical tourism in the region; identify the tourism services available in the Coastal Region areas, useful to construct a health tourism product; evaluate the potential demand from the target market: Senegal, neighbouring countries and other African countries, in the short and medium term and contribute to the design of a health tourism product associated with the territory of this region. In order to achieve the objectives, a series of research questions have been established to be tested based on documentary and statistical information consulted, in addition to that obtained through in-depth interviews and questionnaires. Specifically, the research questions proposed have been the following: 1) Is the current provision of clinics and hostels in Senegal's Coastal Region sufficient to offer a new tourism product consisting of health tourism? 2) Is it possible to start up the necessary services so that in the near future (short and medium term) the new product can be offered? 3) Is essential the intervention of the Senagalese Government in order to facilitate the development of the offer of health tourism?

To carry out the analysis, the study has been divided into the following sections: section two, which includes the literature review; section three, which describes the methodology applied; section four, which deals with the results of the empirical analysis; and finally, the discussion and conclusions.

## Literature review

### *Conceptualization of medical and health tourism*

In recent years, health tourism has been studied by numerous researchers in universities and research centers. However, the diversity of origins and motivations of health tourists explain the confusion that continues to persist among many authors when naming or classifying this kind of tourism. In the literature, it is possible to find authors (Lunt at al., 2011) who establish a clear distinction between medical tourism and health tourism, understanding that they are two independent tourism products with their own identities. These authors relate health tourism to spa establishments, coastal towns and other therapeutic landscapes, while medical tourism would be linked to travel to receive medical treatments such as dental care, cosmetic surgery ... The definitions they give of medical tourism are: 'when consumers choose or travel across international borders with the intention of receiving some form of medical treatment, and, of health tourism as: the organized travel outside one's local environment for the maintenance, enhancement or restoration of an individual's wellbeing in mind and body' (Lunt et al., 2011). It also gives the impression that this trend confuses the concept of health tourism with that of wellness tourism.

On the other hand, another school of authors (Lee & Spisto, 2007; Taleghani et al., 2011), confuse medical tourism with health tourism, to the point of using both denominations to encompass all the services offered, whether of one type or another. For example, the study by Lee and Spisto (2007) consider them as the same product. According to them, 'medical and health tourism is used to refer to a travel activity that involves a medical procedure or activities

that promote the wellbeing of the tourist*'* (Crooks, 2011; Herrick, 2007; Kuo, 2011; Lee & Spisto, 2007; Leng, 2007; Menvielle et al., 2014; Nicolaides, 2011; Nicolaides, 2018; Taleghani et al., 2011; Turner, 2007; Turner, 2011). Within the second current mentioned, we find the approach of Crooks (2011), Herrick (2007), Kuo (2011) and Leng (2007). In the latter case, a tourist destination, mainly applies medical tourism, offering wellness tourism as another option or, a complementary product for the medical tourist.

Ezaidi et al. (2007) relate health tourism in Europe with spa components: 'In Europe, health tourism refers mainly to thermalism and thalassotherapy, but thermalism is the most evoked since 1986, when the World Health Organization (WHO) conferred official status on the International Federation of the Thermal State, assuring thermal medicine an essential role and granting it true and scientific validity' (Ezaidi et al., 2007: 372). The numerous classifications available require an effort of synthesis that also serves to clarify the concepts. For the sake of this clarification, in this study, we will consider health tourism as the main tourist product, to the extent that the ultimate goal of all tourists associated with all the above modalities is to seek improvements in their state of health. Two tourist by-products are derived from this tourist product: medical tourism and wellness tourism. In line with the conceptualization, we have just proposed the contributions of Branco-Bonfada et al. (2011) and Henn-Bonfada et al. (2008), who divide health tourism into two aspects: therapeutic and tourism. 'The therapeutic side is more related to medicine than tourism. Medical centers are visited and tourist facilities and services such as transport, accommodation, etc. are used peripherally. The tourist side is more related to tourism than to medicine, that is, the search for health is in the latter case in tourist centres such as health spas, natural spas and thalassotherapy centers, among others*'* (Branco-Bonfada et al., 2011: 463-64; Henn-Bonfada et al., 2008: 418-19). In addition, in order to overcome the ambiguity surrounding the concept of health tourism, it is relevant to highlight the contribution of Carrera & Bridges (2006: 1) which on the basis of 149 papers, define health tourism as 'the organized travel outside one's local environment for the maintenance, enhancement or restoration of an individual's wellbeing in mind and body'. At the same time, medical tourism is conceptualized by these authors as a subset of health tourism oriented through medical intervention. The above conceptualization is in line with the one proposed by the World Tourism Organization (UNWTO, 1996: 39), according to which 'the term health tourism encompasses wellness tourism and medical tourism', and this is the one we adopt for this paper.

### *The components of health tourism*

*Wellness tourism*

The tourism aspect of health tourism that corresponds to wellness tourism is defined in the following way: *Wellness tourism is considered a category of* 'health tourism that can be defined as the sum of all the relationships and phenomena that occurs as a result of individuals traveling from their usual place of residence to tourism destinations with the aim of promoting, stabilizing and, in some cases, even restoring their physical, mental and/or social wellbeing by means of the consumption of services that favour health*'* (Medina-Muñoz & Medina-Muñoz, 2012: 310). The development of wellness tourism is based on the idea, already put forward by Smith and Puczkó (2014) that in today's societies, opportunities for relaxation will become even more important than entertainment. The displacement of tourists with the purpose of improving their levels of physical wellbeing requires an adequate configuration of the destination, so that natural resources are available to cure certain diseases or, establishments built to treat certain pathologies or for relaxation. Among the offers based on the idea of wellness and based on natural resources, the following are worth mentioning: the natural spa, arenotherapy, health spa, sauna, gym and massage room.

With respect to the first of them, the natural spa, it is feasible to divide them into two modalities: thermalism and thalassotherapy. Thermalism is the hot water treatment with mineral and medicinal properties. Thalassotherapy is a therapeutic method that is based on the use of the marine environment (seawater, algae, mud and other substances extracted from the sea) and the marine climate as a therapeutic agent. 'Thermalism is recommended by WHO for the treatment of chronic diseases, but also, for serious pathologies, such as long-term conditions, multiple sclerosis or severe burns' (Ezaidi et al., 2007: 372).

With regard to arenotherapy, this type of treatment is mainly developed in desert countries such as Morocco. Therapy with sand baths or (arenotherapy**)** is a method by which, under the thermal effect, the body absorbs heat energy, acting against pain, inflammation and rheumatologic symptoms (Gagnol & Landel, 2016). Regarding establishments built to offer this modality, we must highlight health spas, saunas, massage rooms and gyms (Neto, 2022). The movement of people to these facilities is usually for reasons of body care, beauty, aesthetics, relaxation and stress treatments, among others. The health spa is a health establishment that offers treatments, therapies or relaxation systems, using water as its main base. Natural spas offer treatments through the use of mineral waters, to which substances are added to increase the relaxing and aesthetic effects of the patients. The health spa and natural spa are two intimately related forms of tourism. If we prefer to separate them in this study, it is simply in order to respond to the need for managers to experience the two ways separately, but always, with the basic idea that at some point it will be necessary to combine them to take advantage of their complementarity (Kucukusta & Guillet, 2014; Okech, 2014).

The sauna is an installation that takes the form of a room, with a warm atmosphere produced by hot air. According to the Royal Spanish Academy: 'it is a steam bath, in a wooden enclosure, at a very high temperature, which produces a rapid and abundant sweating and is taken for therapeutic purposes'. The country that has the most saunas is Finland, where it is considered a symbol of their national identity, with a sauna for every three inhabitants. Finally, the gym and the massage room usually appear as complementary activities that encourage tourists to get in shape. These establishments are generally part of the offer of many hotels although wellness tourism is not offered in them as their own specialty.

In African countries, it is in North Africa (in Morocco, for example) where wellness tourism is most developed (Ezaidi et al., 2007; Gagnol & Landel, 2016; Maghnaoui, 2021). However, authors such as Siddiqi et al. (2010) report a general lack of coherence between Ministries of Trade and Health of North African countries in formulating policies in the area of trade in health services.

***Medical tourism***

Medical tourism occurs 'when consumers elect or travel across international borders with the intention of receiving some form of medical treatment' (Lunt et al., 2011: 7). The main causes of this can be:

- Long waiting lists in origin countries.
- The existence of bilateral or multilateral agreements between countries that are part of the same community (the European Union, for example) or between more developed and less developed countries.
- Lower prices to be paid in countries other than the country of origin for the same treatment.

These treatments can be done in the recipient country with doctors and team of doctors from the country of origin itself or instead, with human resources from the country of destination.

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Therefore, to ensure good results, doctors in the destination country must be as competent as those in the origin country (Won & Hwang, 2021; Zolfagharian et al., 2018).

The success that medical tourism has had lately in the world has pushed certain hospitals or clinics, usually large companies located in developed countries, to open subsidiaries in less developed countries. Among the most frequently offered medical treatments in the countries of destination, there are the following: curative surgery, cosmetic surgery, teeth treatment, rehabilitation, preventive medicine or reproduction treatment, among others (Bagga et al., 2020).

For the particular case of African destinations, it is worth highlighting the case of South Africa, where the medical tourism subsegment has traditionally been offered, following the recommendation of Henama (2014) as a way to improve the country's economic development levels. Health tourists can diversify the tourism markets served in South Africa by taking advantage of medical tourism opportunities. However, as Boekstein (2014) states, to the extent that the facilities are in the cities, medical tourism is developing in South African cities, and should instead develop outside the cities and move closer to the concept of wellness tourism, taking advantage of the relevant available natural resources. From the perspective of the research proposed here, we consider that both medical tourism and medical trips constitute forms of tourism, since a resident in a less developed country that travels to a more developed one may allow time dedicated to visiting the health destination, and visever –from developed to undeveloped countries.

## Methodology

### *Target population*

From a territorial point of view, the study to be conducted in this research focuses specifically on the Senegalese Coastal Region. This coastal region occupies the entire western part of the country and extends from the region of Saint Louis, in the north of the country, to that of Ziguinchor, in the south (see figure 1). The region studied is divided into five tourist areas: the coastal zone from Saint Louis to Dakar, the Dakar region (capital of the country), the Petite Côte area (main area of sun and beach tourism), the Iles du Saloum area (Saloum Islands) and the Ziguinchor region (with Cap Skirring, the country's second tourism destination, second to the Petite Côte).


Figure 1. Map of Senegal's tourism regions and areas
Source: Planete-senegal.com

Statistical databases gathered from the Ministries of Health and Tourism of the Government of Senegal have been used as the first source of information. These have provided information on the clinical and hospitality structures of the country, in general, and on the Coastal Region, in particular. Although the official data available are limited, valuable information is obtained about our target population: private clinics and hotels located in Senegal's Coastal Region. Of the total of 40 clinics in the country, according to sources obtained from Senegal's Ministry of Health, 28 are in the target region of our research, 24 of which are located in the capital of the country and its outskirts. The target population in the case of hotels is made up of the four and five-star hotels that are located along Senegal's coast, out of the total of 200 hotels that are in the area (Ministry of Tourism, 2016: 37). In the Coastal Region, the number of four and five-star hotels amount to 45. Of these hotels, three are five-star hotels with spas, located in Saly Portudal, the country's main sun and beach destination.

One of the team's researchers contacted all the clinics and hotels that make up our target population, with the aim of arranging a face-to-face appointment with the directors of each of them. In this way, 21 of the 28 clinic managers and 31 of the 45 hotel managers agreed to collaborate by providing the information requested. To confirm the representativeness of both samples, the maximum estimation error of the study is calculated; taking as a general proportion of the approximately 5%, it was estimated an overall error of ± 4.85% (for the clinics) and ± 8.77% (for the hotels), with a reliability of the 95.5%. Next, the researcher goes in person to each of the arranged appointments, moving from the north (St. Louis) to the south (Ziguinchor) of the Coastal Region, visiting the capital Dakar and the tourist areas of Petite-Côte and Saloum on the way.

A secondary source of information has been the performance of an ad-hoc study, for which structured questionnaires have been developed, aimed at collecting information from the two populations studied: Private clinics and hotels in the Coastal Region of Senegal. The questionnaires were based on the information collected through in-depth interviews directed at the socioeconomic agents involved, basically managers of the main clinics and of the highest category hotels and policy authorities from the Ministry of tourism.

First, using the questionnaire, those 21 responsible for private clinics were asked a series of questions to collect information related to the objectives of this research. Specifically, the questions are related to the following objectives:

- Determining the quality of training of centers' staff.
- Determining, if in addition to Senegalese patients, patients from other countries visit the center and from which countries, the most frequent pathologies for these patients, their number per year, their average stay in hospital admission and if they come with medical insurance or not.
- Finding out if there are agreements with hotel establishments to provide accommodation for patients from other countries.
- Inquiring about the possibility of implementing medical tourism in the country.
- Second, various methods were used including an ad-hoc questionnaire to collect information and interviewing 31 hotel managers through personal interviews with the following objectives:
- Inquire about the equipment of hotels in the area, especially related to the equipment necessary to treat some pathologies.
- Know the level of use of this type of equipment.
- Determine the existence of agreements with clinics in the area to facilitate the accommodation of patients and relatives.

- Inquire about the possibility of implementing wellness tourism in Senegal's Coastal Region.

To obtain the necessary information to comply with the objectives set, a market investigation was carried out in the area under study, taking into account two different populations: clinics open at the time of the study and four and five-star hotels involved in the offer of health tourism. With the data obtained in the two previous surveys, a descriptive statistical analysis of each of the variables involved, both quantitative and qualitative, was carried out, obtaining their corresponding frequency tables. For this, we used the statistical program SPSS.

## Findings

Considering that the main objective of this work is to analyze the possibilities of implementing health tourism in Senegal's Coastal Region, we will first study, the country´s current tourism supply and then, what the potential demand might be for this product. Specifically, the results included in this section derive from the consultation of various data sources, mainly of a governmental nature and from bibliographic and documentary information available. Additionally, it has been done the performance of the ad-hoc study, for which structured questionnaires have been developed. The results obtained with both questionnaires (clinics and hotels) are discussed at the end of this section.

### *Senegal's tourism supply and demand*

In order to study the current tourism´ supply of Senegal, we will begin by analyzing accommodation and then, the different tourist areas available, as well as the tourist modalities present. With respect to tourist accommodation available in Senegal, the published data from the Ministry of Tourism referring to the year 2015, specify that the number of registered accommodation establishments is 744, among which we can distinguish 248 hotels, 187 campsites, 80 residences and 229 hostels. Almost all major hotels and resorts are under the management of international chains. The global figures for rooms and beds registered in the country reached in that year, respectively, 18,266 and 27,658 units. As for the number of beds, some 17,841 beds in the hotels, which represents 64% of the total, 4,216 in the campsites (15%), 2,750 in the hostels (10%) and, 2,850 in the residences (11%) (Ministry of Tourism, 2016: 37). 7,901 beds of this total represent those in four and five-star hotels. Most of the accommodation by tourist region are located in the Thies Region where "Petite Côte" (Little Coast) is located, in the Dakar Region; in Ziguinchor and in the Saint Louis Region, as shown in the table 1.

**Table 1. Accommodation by Tourism Region**

| Region / Establishment | Hotels | Hostels | Campsites | Residential |
|---|---|---|---|---|
| Dakar | 83 | 48 | 14 | 29 |
| Thies | 66 | 51 | 21 | 61 |
| Saint louis | 30 | 31 | 15 | 4 |
| Fatick | 11 | 8 | 50 | 0 |
| Kaolack | 3 | 14 | 4 | 2 |
| Tambacounda et Kédougou | 14 | 7 | 39 | 0 |
| Ziguinchor | 41 | 64 | 32 | 2 |
| Total | 248 | 223 | 175 | 98 |

Prepared by authors using data from the Ministry of Tourism (2016)

Speaking of Senegal's tourism demand as a destination, according to sources of the Ministry of Tourism of this country, the latest data that we have available are summarized below in

Table 2. According to border statistics, the number of tourists who arrived in Senegal (by air and land) in 2015 was 1,006,611. If we compare this figure with the 963,004 in 2014, it is observed that there has been a 4,5% increase in the number of arrivals corresponding to that year (Ministry of Tourism, 2016).

**Table 2. Tourist numbers**

| | 2014 | 2015 | Var. 2015/2014 |
|---|---|---|---|
| Number of visitor entries | 976,189 | 1,014,354 | 3.9% |
| Number of tourist tickets | 963,004 | 1,006,611 | 4.5% |
| Tourists' length of stay | 9.69 | 10.13 | 4.5% |
| Cruise Arrivals | 13,185 | 7,743 | -41.27% |

Prepared by authors using data from the Ministry of Tourism (2016)

Regarding arrivals by air it is possible to make the following comments, according to data provided by the Ministry of Tourism in 2016.

- With respect to bordering countries, the only two countries listed in are Guinea Bissau and Mali with a respective total of 24,345 and 14,636. The other African countries are South Africa (6,107), Benin (7,878), Ivory Coast (14,154), Niger (4,322), Togo (4,891) and other African countries (99,744).
- European countries are a very important source of tourism demand in Senegal. For historical-linguistic reasons, the French occupy first place (171,138), then come the countries of Benelux (19,029), Spain (17,122), Italy (15,071) and other countries that in total do not reach 7,000 entries (Germany, Great Britain, among others).
- As regards the remaining countries of the world, the most important are the United States (27,434), Far Eastern countries (15,966) and Canada (6,286).

We observe that the most important tourist arrivals by land are those from the bordering countries of Senegal. The largest numbers correspond, in order, to Mali (74,885), Mauritania (57,163), Guinea Conakry (23,476), Gambia (5,309), Guinea Bissau (1,176). The arrivals of neighbours from other African countries are less important. The most prominent, taken individually are Burkina Faso (1,598), Ivory Coast (726), Niger (647) and other countries taken as a group (14,586). The inhabitants of European countries do not usually arrive by land, the few cases in which this happens are for the French (1,938) and other European countries (2,242). As for arrivals from the rest of the world, they are Americans (373), Asian countries (290) and others from South America (50).

Regarding reasons for trips to Senegal, according to statistics from the Ministry of Tourism (2013: 11), confirm that the majority of tourists arriving in Senegal come for leisure (52.1%). They show how the product "sun and beach tourism" turns out to be the one with the highest tourist demand for this country. Most notable is the existence of a minimum percentage of tourists visiting for health reasons (0.36%). We must underline that the latter demand is related to tourists from neighbouring countries that usually go to Senegal to be treated in the private clinics of the capital and other regions and in the pre Covid19 period.

### *Analysis of the information obtained from those responsible for clinics*

Regarding training, the information obtained is shown in Table 4. There are three large blocks of specialties whose professionals are trained in France. The first block of specialist doctors with percentages not exceeding 28% trained in France is made up of ENT specialties, surgeons, pediatricians and general practitioners. In the second block, with percentages of 19%, are cardiologists, traumatologists, neurologists and senior technicians. And the third block is made up of anesthetists and gastroenterologists.

**Table 3. Place of training of the clinic employees (%)**

| Doctors | Senegal | France |
|---|---|---|
| Cardiologists | 76.2 | 19.0 |
| Anesthetists | 75.2 | 14.3 |
| Traumatologists | 61.9 | 19.0 |
| Pediatricians | 57.1 | 23.8 |
| Neurologists | 33.3 | 19.0 |
| Surgeons | 61.9 | 27.4 |
| Radiologists | 61.9 | 9.5 |
| Gastroenterologists | 28.6 | 14.3 |
| Urologists | 47.6 | 9.5 |
| Gynecologists | 85.7 | 9.5 |
| ENT | 61.9 | 28.6 |
| Dentists | 4.8 | ---- |
| Generalists | 71.4 | 23.8 |
| Nurses | 81.0 | ---- |
| Administrative | 90.5 | ---- |
| Higher technicians | 81.0 | 19.0 |

Prepared by authors using data obtained from the survey (clinics)

The remaining specialties show low percentages. Taking into account the above percentages, it can be concluded that most clinic staff are trained in Senegal itself (due to reasons of birth or residence). The following question in the questionnaire was aimed at finding out the main countries chosen to work outside of Senegal, and if the country is chosen because of the quality of its health service or proximity to Senegal. As shown in Table 4 related to the departure of professionals to work outside their country, it is observed that the first country of destination of these health professionals is France, next are countries bordering Senegal and, lastly the United States.

**Table 4. Destination of health professionals (%)**

| Doctors | United States | France | Countries bordering Senegal | Senegal |
|---|---|---|---|---|
| Cardiologists | ---- | 14.3 | ---- | 85.7 |
| Anesthetists | ---- | ---- | 4.8 | 95.2 |
| Traumatologists | ---- | ---- | ---- | 95.2 |
| Pediatricians | ---- | 4.8 | ---- | 95.2 |
| Neurologists | ---- | 4.8 | ---- | 95.2 |
| Surgeons | ---- | 14.3 | ---- | 85.7 |
| Radiologists | ---- | ---- | ---- | 100 |
| Gastroenterologists | ---- | ---- | ---- | 100 |
| Urologists | ---- | ---- | ---- | 100 |
| Gynecologists | ---- | 9.5 | 4.8 | 85.7 |
| Ear Nose Throat | ---- | ---- | ---- | 100 |
| Dentists | ---- | ---- | ---- | 100 |
| Generalists | ---- | 9.5 | ---- | 90.5 |
| Nurses | ---- | 4.8 | 4.8 | 90.4 |
| Administrative | ---- | ---- | ---- | 100 |
| Technicians | 4.8 | ---- | ---- | 95.2 |
| Medical secretaries | ---- | 4.8 | ---- | 95.2 |

Prepared by authors using data obtained from the survey (clinics)

The largest number of doctors who choose France as a workplace accounts for 14.3% of surgeons and cardiologists, while those who choose bordering countries, or the United States do not exceed 4.8%. The choice of a country like France can be explained for several reasons. Senegal is a former French colony and still has very close relations with France and, the language is not a difficulty, as French is the official language of Senegal. The following block of the questionnaire has been developed to find out the main countries of origin of patients who visit Senegal's clinics.

**Table 5. Country of origin of patients (%)**

| Country of origin | Senegal | Mali | Guinea- Bissau | Chad | Equatorial Guinea | Gambia | Guinea- Conakri | Senegal |
|---|---|---|---|---|---|---|---|---|
| Cardiology | 4.8 | ---- | 9.5 | ---- | ---- | ---- | ---- | 85.7 |
| Radiology | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |
| Traumatology | 4.8 | ---- | ---- | ---- | ---- | ---- | 4,8 | 90.4 |
| Pediatrics | 4.8 | 4.8 | 4.8 | ---- | ---- | ---- | ---- | 85.6 |
| Neurology | 4.8 | ---- | 4.8 | ---- | ---- | ---- | 4,8 | 85.6 |
| Urology | ---- | ---- | 4.8 | ---- | ---- | ---- | ---- | 95.2 |
| Gynecology | 4.8 | ---- | ---- | ---- | ---- | ---- | ---- | 95.2 |
| Others | ---- | ---- | ---- | ---- | ---- | ---- | ---- | 100 |

Prepared by authors using data obtained from the survey (clinics)

The results indicate that the percentage of foreign patients who come to be treated in Senegal is very low, and they come, mainly from the neighboring countries such as Guinea Conakry, Guinea Bissau and Mali, among others. It should be borne in mind that the country does not have a linked database that allows us to verify if the percentages conform to those shown in Table 5. The most consulted pathologies are pediatrics, neurology and cardiology with percentages of 14%, diseases common in all parts of the world, both in developed and underdeveloped countries. With respect to the existence of agreements that local private clinics have with hotels to accommodate foreign patients, the almost unanimous answer has been “No” with 95.2% of the responses (20/21), and one answer has been DK/NC, no affirmative answer was obtained. This question is of the utmost importance given that this type of agreement usually exists in countries where medical tourism is offered, thus in Senegal, hotels and clinics would have to formalize this type of collaboration. When analyzing the possibilities of implementing or developing medical tourism, most of the clinics interviewed, as shown in Table 6, see it as possible but as a long-term action, with 42.86% of the sample interviewed responding positively. There are 23.81% who consider it feasible in the short or medium term, and only 9.52% consider that it can be implemented immediately, and 23.81% respond that medical tourism is already present in Senegal.

**Table 6. Do you think that the implementation of medical tourism in Senegal is feasible?**

| | Frequency | Percentage |
|---|---|---|
| The implementation of medical tourism in Senegal is only feasible in the long term | 9 | 42.86 |
| The implementation of medical tourism in Senegal is probably feasible in the medium or short term | 5 | 23.81 |
| The implementation of medical tourism in Senegal is immediately feasible | 2 | 9.52 |
| The offer of medical tourism is already present in Senegal | 5 | 23.81 |
| | | **100** |

Prepared by authors using data obtained from the survey (clinics)

The analysis of the set of responses indicates that those responsible for the health centres interviewed believe that Senegal is not yet ready to develop a policy for the implementation of medical tourism in the short or medium term. While those who think that the offer is already present are based, above all, on the presence of patients from neighbouring countries that are already being treated in Senegal.

The following data are intended to show how much respondents value Senegal's health supply. The analysis of the responses shows how 81% of respondents think that the Senegalese medical system is trustworthy and the rest (19%) do not want to give an opinion. These percentages indicate a high valuation of health centres and those responsible for these centres and their health offer.

However, when asked if they believe that Senegal’s health centres meet the requirements to receive patients from developed countries, 66.7% of respondents think that this country currently does not meet all the requirements for patients from developed countries to

receive healthcare in Senegal, whereas just 19% think they do. The remaining 14% of the centres interviewed did not answer.

Given the high percentage, of the total of the selected sample, which consider that the country does not meet the requirements to receive patients from developed countries, we inquired as to what Senegal should do, so that it can receive patients from other countries. The proposals are shown below in Table 7 and according to these, it can be seen how the greatest deficiencies manifested by interviewees are mainly in aspects connected with technological developments in medicine and the modernization of medical equipment and material. They also show the need to invest in the offer of health tourism and the need to modernize the organizational structures of the centres.

**Table 7. What must be done to meet the requirements to treat patients from the developed world?**

| | Frequency | Percentage |
|---|---|---|
| We must finance and invest more | 15 | 16.9 |
| It is necessary to implement stricter controls in the medical system | 8 | 9.0 |
| The organizational structures must be modernized | 11 | 12.4 |
| Progress must be made within the framework of medical technology | 17 | 19.1 |
| We must improve reception and patient care | 8 | 9.0 |
| We have to buy more modern equipment and material | 17 | 19.1 |
| The existing drug factories must be strengthened and modernized | 3 | 3.4 |
| Analysis laboratories must be strengthened and modernized | 3 | 3.4 |
| New hospital centres must be built | 7 | 7.9 |

Prepared by authors using data obtained from the survey (clinics)

### *Results of the analysis of information provided by hotel managers*

The results obtained from the field work about the equipment necessary to treat some pathologies are analyzed below in Table 8. The majority of the hotels consulted (67.7%) report that their hotel does not have the necessary equipment to treat certain pathologies or for relaxation. The reasons they give for not offering this type of equipment are mainly because they do not consider it a priority (22.6% of the hotels interviewed). In second place is the reason of "lack of space" with 19.4%, and third, with 12.9% of the total responses, the hotel managers state that they have planned for the medium or long term to offer this type of equipment/service.

**Table 8. Have you installed new equipment? If the answer is "NO" why?**

| | Frequency | Percentage |
|---|---|---|
| DK/NC | 10 | 32.3 |
| It is being installed | 1 | 3.2 |
| Lack of space | 6 | 19.4 |
| Scarcity of funds to invest | 2 | 6.5 |
| Not profitable | 1 | 3.2 |
| Not a priority | 7 | 22.6 |
| Planned in the medium to long term | 4 | 12.9 |
| Total | 31 | **100** |

Prepared by authors using data obtained from the survey (hotels)

However, to the question about whether they consider the possibility of implementing wellness tourism, and offering these services to be profitable or not in the short or medium term, the majority answer is that "yes, they consider them profitable" with 58% of the total responses. Regarding the current offer of hotel services in Senegal's Coastal Region, the main services offered are "massage room" which represents 27.8% of the total responses, and "gym" with 24.1%. In third and fourth place are "spa services," 14.8% and "other services" with 13% of the total number of hotels interviewed (Table 9).

**Table 9. Offer of other services**

| | Frequency | Percentage |
|---|---|---|

| | | |
|---|---|---|
| The hotel offers sauna services | 6 | 11.1 |
| The hotel offers spa services | 8 | 14.8 |
| The hotel offers spa services | 5 | 9.3 |
| The hotel offers gym services | 13 | 24.1 |
| The hotel offers massage room services | 15 | 27.8 |
| The hotel offers the services of other types of services | 7 | 13.0 |
| Total | 54 | **100** |

Prepared by authors using data obtained from the survey (hotels)

According to the data obtained related to the offer of hotel services such as health spas, natural spas etc., it is shown in 51.6% of the cases. They are offered as a product apart from the hotel services and are used, mostly, once a day by hotel guests. Regarding the training of hotel staff, it is observed how 62.5% say that the staff working in the hotel were trained in the country itself. The rest were trained in Morocco 18.8% and in France 15.6%. The other alternatives do not present significant percentages (Table 10).

**Table 10. Country where staff were trained**

| | Frequency | Percentage |
|---|---|---|
| The staff of these establishments were trained in Senegal | 20 | 62.5 |
| The staff of these establishments were trained in Morocco | 6 | 18.8 |
| The staff of these establishments were trained in France | 5 | 15.6 |
| The staff of these establishments were trained in Canada | 1 | 3.1 |
| Total | 32 | **100** |

Prepared by authors using data obtained from the survey (hotels)

The following block of questions has been aimed at determining the opinion of the hospitality sector about the development potential of Senegal's Coastal Region as a wellness tourism destination. As shown in Table 11, wellness tourism is considered as a supplementary tourist advantage, an idea that should be developed and could help in the development of the Coastal Region. However, there is a great lack of knowledge of why it would be a tourist advantage, since 71% cannot answer why it is a possibility. This percentage falls to 61.3% when the question is about the potential of wellness tourism as a supplementary offer.

**Table 11. The implementation and application of wellness tourism in the Senegal Coastal Region**

| | Frequency | Percentage |
|---|---|---|
| It's a possibility | 11 | 15.7 |
| It is a supplementary tourist advantage | 14 | 20.0 |
| It is a great innovation | 9 | 12.9 |
| It is a good idea to develop | 13 | 18.6 |
| It is one more tourist product | 10 | 14.3 |
| It would help the economic development of the region | 13 | 18.6 |
| Total | 70 | **100** |

Source: Prepared by authors using data from the survey (hotels)

The next group of questions aims to analyze the different reasons or opportunities that could be achieved with a wellness tourism offer in the country's Coast Region. The hotels that consider health tourism to be a possibility, although complementary, respond mainly because: 1) It will attract other customers (12.9%); 2) Strengthens sun and beach tourism and diversifies the offer (9.7%); 3) The number of tourist arrivals will grow (12.9%); 4) Development of the area: more employment, investment, turnover and less unemployment (22.6%). The answers that have been obtained to the question of whether the implementation of wellness tourism is considered a great innovation, are grouped around the following blocks. Wellness tourism does not exist though it is beginning to emerge today. More than an innovation, it should be considered a real possibility that must be implemented by all the structures of the country. To achieve the development of wellness tourism, the hospitality sector considers that the

Senegalese government must be involved, given the advantages of this type of tourism offer. These advantages are not only for hotels, since it will encourage other economic actors to carry out investments in the area and contribute to higher incomes in the tourism sector, and therefore tourism will increase its weight in the country's GDP structure. As for the most suitable place for the location of this type of offer (Table 12), as can be seen from the results, there is no clearly highlighted area from the rest of the mentioned areas. However, two zones appear with percentages above the rest of the analyzed areas: Le Petite Côte and Cap Skirring both with 16.9% of the total answers given.

**Table 12. What area would be suitable to implement this type of tourism?**

| | Frequency | Percentage |
|---|---|---|
| Dakar | 11 | 12.4 |
| Lac rose | 12 | 13.5 |
| Petite Côte | 15 | 16.9 |
| Casamance | 6 | 6.7 |
| Cap Skiring | 15 | 16.9 |
| Dayane | 4 | 4.5 |
| Las Iles du Saloum | 12 | 13.5 |
| Saint - Louis | 14 | 15.7 |
| Total | 89 | **100** |

Source: Prepared by authors using data from the survey (hotels)

When asked if they believe that the implementation of wellness tourism would be successful, 90.3 % of the population interviewed responds that it would be a success, compared to 9.7 % who answer no. As additional information, questions were asked about the currency most used to pay for the services offered by the hotel. The most commonly used currency is the CFA Franc 74.2%, followed by the euro with 19.4%. The rest of the currencies from other countries represent 6.5% of the total responses. The fact that the currency most used in transactions, with 74.1%, is the CFA Franc is a clear indicator of the origin of the vast majority of customers (bordering regions of neighbouring countries).

## Discussion and conclusion

The situation caused by Covid-19 has a number of implications for tourism activities. To begin with, health tourism has become an option with a bright future, given the importance that tourist markets attach to destinations that offer products that contribute to improving their physical and mental health. Secondly, in less developed countries, health tourism can be seen by governments as a way of specializing in tourism for the territories they govern. However, it is important to have in mind that least developed countries do not have the necessary technical resources to implement medical tourism. On the other hand, the recommendation to promote and offer health tourism only for neighboring countries is even more peremptory, given the difficulty of traveling to very distant territories due to the restrictions imposed by the health authorities of the different countries at any given time.

In relation with the development of health tourism in Senegal's Coastal region, the main result of this paper is that it is possible to develop health tourism in the area of wellness tourism, but not in the area of medical tourism, which requires more modern and sophisticated technological equipment. It is not possible to innovate in products without having the right infrastructure. In fact, this was stated by the agents of the sector in Senegal and/or the regions interested in developing this new tourism product. Moreover, despite having an adequately trained workforce, the lack of sufficient infrastructure, material and medical equipment makes it difficult, even in the case of a labor-intensive product, to offer health tourism as a new tourist product. Thinking of the best model for Senegal health tourism development, between the two types of health tourism developed in Africa -wellness tourism and medical tourism-, the

feasible model in the short and medium term for Senegal is that of Morocco, that is, wellness tourism and not medical tourism, which is South Africa's most typical model. The main reason for the low development potential of medical tourism is due to the inadequate provision of advanced technological medical facilities.

Perhaps what can be concluded is that medical health tourism could only be developed with a long-term perspective, and, in any case, aimed at, the demand coming from neighbouring regions and countries bordering the region of West and Sub-Saharan Africa. On the other hand, wellness tourism could be put into operation within a medium time horizon and with a broader spatial perspective that also includes developed countries. Based on the current offer of health tourism in Senegal (clinical and hospitality offer), we have to conclude that the application and development of health tourism in Senegal is not possible immediately because none of the proposed options is available. Most respondents also see it this way. This is the current situation probably because the Senegalese Government is not developing a strategy for the implementation of this new tourism product as a source of increased wealth in terms of GDP. Tourism represents, in fact, the second most productive sector in Senegal, after fishing.

In the future, we consider the implementation of health tourism in Senegal's Coastal region feasible if, from the point of view of supply, the Government takes into account the following considerations: Tourism together with health, in any of its modalities, will improve the general situation of the country and its population - it can be a complementary source of income in terms of capital resources and in training of human resources, contributing to the economic improvement of the population and society as a whole. Futhermore, some specific recommendations can be included in order to improve the conditions for health tourism development in the Coastal Region of Senegal. Promotion of modern health tourism infrastructure (Clinics, hospitals, hotels, thermal centers, spas) and agreements, mainly, with the traditional demand of Senegal tourism having in mind. This would allow hospitals, clinics and hospitality structures to cooperate and invest in health tourism and thus, encourage their compatriots and tourists from neighbouring countries to travel and have health treatment in Senegal. Additionally, this development is possible if, in parallel, the training of specific personnel dedicated exclusively to this type of activities is improved. Creation of new areas in the Coastal Region to implement health tourism is needed, too; areas that meet all the requirements for this type of tourism. Finally, urging hospitality and clinical establishments to be involved in this activity with very strong cooperation, favouring very high visibility of the product for both local and foreign customers.

Undoubtedly, ensuring greater visibility of Senegal in order to help it take steps towards a better hotel and clinic offer will act as a tourism driver in the region, an economic engine and attraction for other activities. In short, Covid19 makes even more imperative the need to enhance health tourism and to link it mainly to wellness tourism, thus responding to the requirements of today's tourism markets. However, it is difficult to offer in Senegal the model proposed by Boekstein (2014) for South Africa, based on the combination of health (medical and wellness) services with leisure activities. Then, the model of wellness tourism most common in North African countries is proposed for Senegal's Coastal Region. Furthermore, this study has shown that creativity and innovation are just as important in health tourism as in any other industry, but always considering the constraints imposed by the local structures of each particular region. With respect to the limitations encountered during the study, the difficulty in finding reliable and updated official data stands out; therefore, in this case, we have had to resort to direct collection of the information. Finally, with a view to future studies, similar analyses are proposed for the post-Covid19 stage.

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