

---

Characterization of the healthcare tourism in the city of Bogotá and the district of Cartagena

Turismo de salud en la ciudad – región de Bogotá y el distrito de Cartagena

Francisco José Arias-Aragón<sup>1</sup>, Alexander Mauricio Caraballo-Payares<sup>2</sup> y Javier Enrique Jiménez-Osorio<sup>3</sup>

<sup>1</sup>Fundación Universitaria Los Libertadores, Colombia. *Email:* [franciscoarias100@hotmail.com](mailto:franciscoarias100@hotmail.com)

<sup>2</sup>Universidad de Cartagena, Colombia. *Email:* [acaraballo@unicartagena.edu.co](mailto:acaraballo@unicartagena.edu.co)

<sup>3</sup>Universidad de San Buenaventura, Colombia. *Email:* [jjimenez@utb.edu.co](mailto:jjimenez@utb.edu.co)

**To cite this article:** Arias, A. F., Caraballo, P. A. & Jiménez, O. J. (2020). Characterization of the healthcare tourism sector in the city of Bogotá and the district of Cartagena. *Clío América*, 14(28), 468-485. <http://dx.doi.org/10.21676/23897848.3941>

Recibido: 09 junio de 2020

Aceptado: 10 de septiembre de 2020

Publicado en línea: noviembre 20 de 2020

---

## ABSTRACT

.....  
**Keywords:**  
healthcare  
tourism;  
healthcare  
services;  
health cluster;  
international  
market.

The article characterizes health tourism, with the purpose of identifying potentials in the cities of Bogotá and Cartagena to offer services to patients from abroad. A comparative analysis is done between these two cities, in order to identify the weaknesses, opportunities, strengths and threats they present. The study is carried out through a quantitative research approach, using primary sources of information to characterize the sector in these cities. As for the sector in Bogotá, it highlights the quality of health services, specialized infrastructure, the accreditations of some health institutions and the formation of the health cluster, as competitive elements. Meanwhile, Cartagena shows very attractive prices; however, it presents problems of scarcity of health infrastructure and health professionals, low levels of bilingualism and increased local health service needs. The need to strengthen the competitiveness of the sector in both cities is concluded, as the trend points to growth of this type of tourism in the coming years.

## RESUMEN

.....  
**Palabras clave:**  
turismo de  
salud;  
servicios de  
salud; cluster  
de salud;  
mercado  
internacional  
.

El artículo caracteriza el turismo de salud, con el propósito de identificar las potencialidades en las ciudades de Bogotá y Cartagena de ofertar servicios a pacientes provenientes del extranjero. Se hace un análisis comparativo entre estas dos ciudades, en aras de identificar las debilidades, oportunidades, fortalezas y las amenazas que presentan. La investigación se desarrolla mediante un enfoque de investigación cuantitativo, empleando fuentes de información primaria que permitan caracterizar el sector en estas ciudades. Se encontró que en Bogotá, se destaca la calidad de los servicios de salud, la infraestructura especializada, las acreditaciones de algunas instituciones sanitarias y la conformación del clúster de la salud, como elementos competitivos. Entretanto, Cartagena muestra precios muy atractivos; sin embargo, presenta problemas de escasez de infraestructura sanitaria y de profesionales de la salud, bajos niveles de bilingüismo y aumento de las necesidades locales de servicios de salud. Se concluye la necesidad de fortalecer la competitividad del sector en ambas ciudades, pues la tendencia apunta a un crecimiento de este tipo de turismo en los próximos años.

**JEL:** Z32.

## INTRODUCTION

The globalization of the healthcare sector has given way to a new form of tourism now known as health tourism, within which the medical and wellness tourism sectors lie. Annually, this industry's turnover exceeds 60 trillion dollars (Connell, 2006; Connell, 2013; Jones & Keith, 2006; MacReady, 2007; Horowitz *et al.*, 2007; De Arellano, 2007; Lunt & Carrera, 2010) and the number of developing countries offering medical services to tourists from overseas is increasing (Arias *et al.*, 2012). In Colombia, there is little research on the subject and the characteristics of this market are still unknown, that is, the supply and of healthcare tourism. For this reason, it is important to design a study that characterizes the healthcare tourism subsector with the aim of providing all the stakeholders in the supply chain with visibility, namely, government entities, trade clusters and users of the system, as well as the dimensions and potentials held by the City-Region of Bogotá and the District of Cartagena to export such services, and, in this manner, a business model can be created that best meets the demands of the international market, in order to promote greater competitiveness. Likewise, the study will expand knowledge on the role that companies should play in the revitalization of the sector, as well as the possible strategic alliances that must be set up towards building a medical services exporting structure that meets international demands, thus creating value chains.

Globalization processes in the world's economies have caused for a series of transformations in the behavior of companies, to the point that new forms of opportunities and business organizations have emerged (Vargas, 2005). Under these circumstances, the companies that provide healthcare services have not been unaware of this reality, because many countries have chosen to open their health systems, thus allowing foreign patients, after a prior disbursement, to access the same medical and hospital services enjoyed by national citizens; this is what Smith *et al.*, (2011) have called cross-border patient circulation. However, it is important to highlight that this system, where patients leave their country in search of a reliable source of healthcare to access their required treatment, is not a recent phenomenon; it has been practiced since ancient times. The dynamics used to be that patients from developing countries would travel to developed countries

in search of treatments, under the premise that technology and scientific advances guaranteed the quality of the results of such treatments, but at the beginning of the 21st century, this trend changed completely to such an extent that it is now the patients from industrialized countries who access health services in developing nations. This scenario has been brought about by the fact that some developing countries have generated a series of competitive advantages, such as training of medical personnel in the world's best universities, improvements in air, land, sea and river transportation systems, broadband connectivity, appealing healthcare service prices, among other factors. All this situation has led developing countries to discover a potential new source of income, since the growth potential of healthcare service exports ranges from 4 % to 6 % annually (Bancoldex & SIGIL Consulting Group, 2015).

In essence, the globalization of the health sector has given rise to a new form of tourism known as healthcare tourism, which includes medical tourism and wellness tourism, whereby medical tourism stands out as a modality due to its rapid growth worldwide. This industry's turnover currently exceeds 60 billion dollars (Jones & Keith, 2006; MacReady, 2007) and the number of developing countries that are offering medical services to overseas patients on a daily basis is on the increase (Arias *et al.*, 2012).

When addressing this topic in Colombia, little research has emerged; the factors that influence its development are still unknown, as well as the characteristics of the market - supply and demand for healthcare tourism. However, since 2009, Colombia's Ministry of Commerce, Industry and Tourism (MINCIT) has been working through the Productive Transformation Program (PTP) within the healthcare tourism cluster, which aims to position the country as a tourism destination for world-class health services in terms of curative, preventive, aesthetic and wellness medicine. Through this government initiative, it is expected that around 2.8 million health tourists will flock in for a revenue of 6.3 million dollars by 2032 (Colombia's Ministry of Commerce, Industry and Tourism - MINCIT, 2017). Essentially speaking, the cluster is nothing more than a conglomeration of entities from within the sector that seek to consolidate it through the creation of a robust competitiveness system that guarantees access to international markets.

Without any doubt, Colombia has high potentials to develop the activity of healthcare tourism, which is supported by the following aspects:

- Treatment costs are between 25 % and 40 % lower than rates recorded in countries such as the United States.
- Professional staffs are amongst the world's best.
- Response times are faster than in countries with universal coverage systems (In Canada, a patient can wait up to a year for surgery to be scheduled)
- There are seven (7) tax-free health zones and two (2) more are in the process of approval (this accounted for an investment of \$ 400 000 million for the country).
- There are twenty-five (25) entities throughout the country with comprehensive experience in caring for international patients.
- There is expertise in highly complex specialties such as cardiovascular, bariatric, orthopedics and aesthetic dentistry.
- Propose strategies to improve the performance of the healthcare tourism sector in the City-Region of Bogotá and the District of Cartagena.
- Identify the defining features of the international Healthcare Tourism market in terms of rates, as well as supply and demand for services.
- Identify and compare the weaknesses, opportunities, strengths and threats of the Health Tourism Sector in the City-Region of Bogotá and the District of Cartagena.

## METHODOLOGY

The study is developed using a quantitative research approach, using primary sources of information that allow us to properly characterize the Health Tourism Sector in the City-Region of Bogotá and The District of Cartagena in order to identify how competitive these cities are to enter the international market. On the other hand, the quantitative research approach is used, being the achievement of descriptive research since it is intended to specify the properties, characteristics and profiles of health tourism in the city-region of Bogotá and Cartagena.

In these circumstances, the research, on an explorative basis, addresses the characterization of healthcare tourism in the City-Region of Bogotá and the District of Cartagena to identify and compare the potentials offered by these cities in order to venture into the various levels of competitiveness in the international market.

The general objective of the research is to characterize the healthcare tourism sector in the City-Region of Bogotá and the District of Cartagena, with the aim of identifying and contrasting the weaknesses, opportunities, strengths and threats that such cities bring forth upon entrance into the international market. The research has the following specific objectives:

- Determine the behavior of the healthcare tourism sector of the City-Region of Bogotá and the Cartagena District in terms of patients cared for, installed capacity, regulations and trends.
- Describe the operation of the Healthcare Tourism sector's supply chain in the City-Region of Bogotá and the District of Cartagena.
- Identify the defining features of the international Healthcare Tourism market in terms of rates, as well as supply and demand for services.
- Identify and compare the weaknesses, opportunities, strengths and threats of the Health Tourism Sector in the City-Region of Bogotá and the District of Cartagena.

To achieve a complete characterization of the tourism sector, four (4) stages are carried out. The former will determine the behavior of the sector seeking to demonstrate the true potential of the City-Region and the District in the provision of the health service. In the second stage, the characteristics of the international market will be identified with the purpose of sizing how the competition is located and the role that the City-Region and The District play in this activity, third, the DOFA of the sector will be identified and compared in the areas of the study, in order to determine the factors that prevent them from being competitive, finally a strategy will be proposed that allows the improvement of exports of the sector. All stages will be carried out with secondary information from entities such as the Chamber of Commerce of Bogotá and Cartagena, Ministry of Commerce, Industry and Tourism; National Administrative Department of Statistics (DANE), Migration Colombia, Procolombia, Vice-Ministry of Tourism and the Ministry of Foreign Affairs.

The data provided by primary sources will be processed using the techniques of descriptive statistics with the SPSS software, therefore the population will be used as a reference element, which is represented throughout the supply chain of the Colombian health system, such as: Clinics and hospitals, EPS, prepaid medicine companies, clinical laboratories, ambulance companies, surveillance and health control agencies of the State among others.

## RESULTS

Despite the evident potential flaunted by the country to undertake healthcare tourism activities, there are serious issues of competitiveness in the sector, as reflected by the lack of internationally accredited service providers, low investment, difficult entry and permanence of health tourists in the country and the low level of bilingualism among the human talent (Arias *et al.*, 2012; Arias *et al.*, 2016; De La Puente *et al.*, 2017; De La Puente *et al.*, 2018; Arias & Batista, 2018; Passos & Arias, 2016).

When analyzing the domestic outlook in the field of healthcare tourism, we find that Colombia has enormous potential to become a leading country in Latin America in the field of healthcare service exportation. What is required is for more work to be put in on the system's weak points in order to generate competitiveness in the sector, as has been done by the Ministry of Commerce, Industry and Tourism through the Productive Transformation Program. Likewise, there are a number of potentialities, akin to those at the domestic level, in the capital city of Bogotá; some particulars can be observed, which allow for healthcare tourism to become incentivized, such as the high quality of health services, the opening of the new international airport, the robust hotel infrastructure, among others. All such potentialities are being channeled for optimal use with initiatives such as that of the Bogotá Chamber of Commerce which, in 2015, in association with the leaders of the sector (IPS (Healthcare Providers), EPS (Healthcare Service Operators) and Prepaid Medical Entities), Governments (National and Local), supporting entities (insurance companies, providers of medical supplies – devices, technology, equipment, medications-, as well as specialized services –laboratories and ambulances-) along with academia, incorporated a healthcare cluster with the sole purpose of working collaboratively towards generating the sector's required productivity and competitiveness.

Despite the evident potential flaunted by the country to undertake healthcare tourism activities, there are serious issues of competitiveness in the sector, as reflected by the lack of internationally accredited service providers, low investment, difficult entry and permanence of health tourists in the country and the low level of bilingualism among the human talent.

When analyzing the domestic outlook in the field of healthcare tourism, we find that Colombia has enormous potential to become a leading country in Latin America in the field of healthcare service exportation. What is required is for more work to be put in on the system's weak points

in order to generate competitiveness in the sector, as has been done by the Ministry of Commerce, Industry and Tourism (MINCIT) through the Productive Transformation Program (PTP).

Likewise, there are a number of potentialities, akin to those at the domestic level, in the capital city of Bogotá; some particulars can be observed, which allow for healthcare tourism to become incentivized, such as the high quality of health services, the opening of the new international airport, the robust hotel infrastructure, among others. All such potentialities are being channeled for optimal use with initiatives such as that of the Bogotá Chamber of Commerce which, in 2015, in association with the leaders of the sector (IPS (Healthcare Providers), EPS (Healthcare Service Operators) and Prepaid Medical Entities), Governments (National and Local), supporting entities (insurance companies, providers of medical supplies – devices, technology, equipment, medications-, as well as specialized services –laboratories and ambulances-) along with academia, incorporated a healthcare cluster with the sole purpose of working collaboratively towards generating the sector's required productivity and competitiveness.

Bogotá, being Colombia's capital city, has the largest and best hospital infrastructure in the nation, making it one of the main destination cities for tourists coming into the country to pursue health-related procedures (aesthetic or medical). According to the statistics from the Colombian Migration Service (2014) during the 2008 to 2014 period, 29 876 foreign nationals entered the country in search of medical treatments, of which 19 834 did so in the city of Bogotá. On the other hand, the wide portfolio of specialties and the different levels of complexity, along with the growing number of IPS (Healthcare Providers) accredited in the country, make the city a renowned and highly sought-after destination for international healthcare tourists.

The reality of Bogotá as a healthcare tourism destination is very encouraging given the fact that it has introduced a group of accredited clinics and hospitals that are internationally established as an iconic brand, which supports the creation and promotion of healthcare tourism products. However, the systematization of the statistics generated by the sector is still a matter of concern, despite the fact that significant progress has been made through the operation of the sector's cluster.

On the other hand, the outlook of the Cartagena District, although its medical services present competitive rates compared to those of the United States and nearby countries, is not very encouraging, due to the fact that the

hospital infrastructure is insufficient to provide locals with due care, in addition to the fact that there is a deficit of beds and operating rooms. As per health entities, such as the District Health Management Department (DADIS)-, there is a shortage of 1 016 beds and a ratio of 2 beds per 1,000 inhabitants, although the requirement is at least three (3) and the international standard is 5.5. Also, there is a deficit in medical care and a decrease in the supply of public healthcare, which creates greater pressure on the private sector (Viloria, 2005).

Cartagena has an inventory of natural, tourist and historical attractions, which are not associated with the healthcare tourism sector. This is usually seen as an utter drawback, given that the general trend in the industry is for patients to prioritize medical treatments within a relaxing environment, for which it is necessary to provide facilities and services that offer peace of mind and recreation, not only for patients, but also for their companions (Heung *et al.*, 2010).

In addition to the above, the fact that the District of Cartagena, as a destination for medical tourism, has to date failed to produce a hospital or clinic with an iconic brand that can support the creation and promotion of products of this nature is an issue that has also been noteworthy.

## DISCUSSION

The results of this research work show the dynamism of the health tourism sector in Colombia and the growth of revenue from exports of services in the cities of Bogota and Cartagena, in line with the results of recent research work (Arias *et al.*, 2016; Arias & Batista, 2018) and the achievements of the Productive Transformation Program (PTP), where visitor arrivals are prospecting for 2025 of 2.8 million and revenues of more than \$6.3 billion (Colombia Productiva, 2018).

The recent increase in health tourism to Colombia is explained for a number of reasons, such as the quality of medical services, the accreditation of some clinics and hospitals, the development of new health and transport infrastructure, the presence in the country of valuable health-friendly natural resources (welfare tourism), the country's strategic position on the continent and the lower costs of many medical procedures and surgeries, compared to the US and European countries.

Despite Colombia's enormous potential to become a leader in Latin America in the sector, certain difficulties persist that affect competitiveness and prevent securing the entire production chain, thereby ensuring compliance with international standards and the integral management of

patients entering the country. These difficulties have to do with the absence of regulation and the lack of a legal framework that determines the responsibilities of each of the links in the production chain, the difficulties associated with the entry and stay of patients on health visas and the fact that there are a small number of clinics and hospitals with international accreditations such as that of the International Joint Commission (JCI).

The state of competitiveness of the cities of Cartagena and Bogota, as health tourism destinations in Colombia, shows significant differences in the dynamics of the sector. In the case of the city of Bogotá, the presence of internationally accredited clinics and hospitals (JCI) stands out, such accreditation is considered as the most important in the industry and the most influential in patients when choosing a destination and health facility. However, obtaining such accreditation requires enormous efforts and investments, only available to few health institutions in Colombia. In addition, in Bogota there have been important competitive initiatives in the sector, such as the formation of the health cluster, by the Bogotá Chamber of Commerce since 2015; this initiative has brought many advantages, managing to coordinate the activities and responsibilities of each of the links of the production chain and thereby the use of economies of scale, reducing costs, incentivising investments in infrastructure and health technology, incentivising investment in research, development and innovation (R+D+I), generating a greater commitment to the integral management of patients and compliance with international standards.

The competitive landscape of the city of Cartagena as a destination for health tourism in Colombia, shows the presence of health-friendly natural resources, such as the climate, spas and rural landscapes near the city. The above resources are valuable for the development of the welfare category and are not available in many destinations, for this reason, are part of a differentiated offer, compared to the city of Bogota. The lower prices of medical procedures and surgeries make Cartagena an attractive destination for those looking for economy, the savings are 30 % to 60 % compared to the US and countries of Europe; however, this can gravitate against, after sending lower quality messages in the provision of health services. In addition, closures of clinics and hospitals, in previous years, have reduced the supply of services, which has been exacerbated by increased demand from the local population and a shortage of health professionals (specialist doctors and nurses) and staff with foreign language professed. Compared to Bogota, Cartagena lacks a cluster strategy, which is why it presents serious problems of coordination and assumption of responsibilities on the part of the production chain.

## CONCLUSION

It is important to highlight that, despite the fact that little research has been done on the subject along with the difficulty of systematizing the sector's data, there is an initiative led by Bogotá's chamber of commerce, which brought various entities in the sector together with the purpose of generating a robust competitiveness system that guarantees easy access to international markets through a mechanism called the healthcare cluster. All the while, despite the fact that the Cartagena District still lacks such a cluster, it is worth noting the enormous efforts made by its chamber of commerce to reinforce such an effort.

The healthcare tourism sector has become, in recent years, an attractive element to leverage Colombia's economic growth, due to the fact that the Health Tourism Sector Business Plan, prepared by the Ministry of Commerce, Industry and Tourism - Productive Transformation Program-, recognizes that the country has an opportunity to position this sector by the year 2032, thus becoming able to generate income levels of the order of US \$ 6.3 million, which translates to about 2.8 million tourists who would visit the country in search of medical and hospital services.

If taken into consideration that more than 66.5 % of the tourists who visit the country come into the city of Bogotá, it is necessary to carry out studies that help to identify the true potentialities that the city holds in store around these issues, in order to contribute to government agencies towards developing policies that encourage the competitiveness and productivity of the sector.

The District of Cartagena, despite managing competitive prices in its offer of medical services in relation to other countries, faces problems for the development and growth of the medical tourism sector due to hurdles such as a lack of hospital infrastructure, shortage of health professionals in various specialties with mastery of foreign languages, lack of laws and regulations for the activity, as well as an increase of local health needs in a scenario of substandard hospital infrastructure and health professionals.

### Conflict of interest statement

The authors of the present work state that during the realization of the same there was no conflict of interest and that the content and appreciations of it, do not compromise the institutions for which they work.

## BIBLIOGRAPHICAL REFERENCES

Arias, F. & Batista, A. (2018). La actividad del

turismo médico en Cartagena de Indias: Un enfoque del lado de la oferta. Brújulas investigativas de turismo, administración y comercio. Editorial de la Institución Tecnológica Colegio Mayor de Bolívar. (Original publicado en 2018).

Arias, F.J., A.M. Caraballo, J.M. Muñoz. (2016). El turismo médico en Cartagena: "oferta y barreras". *Dimensión Empresarial*, 14(2), 143-162. <http://repositorio.uac.edu.co/bitstream/handle/11619/2400/EL%20TURISMO%20M%20C3%89DICO%20EN%20CARTAGENA.pdf?sequence=1&isAllowed=y>

Arias-Aragones, F. J., Caraballo-Payares, A. M. & Matos-Navas, R. E. (2012). El turismo de salud: conceptualización, historia, desarrollo y estado actual del mercado global. *Clío América*, 6(11), 72-98. <https://doi.org/10.21676/23897848.440>

Bancoldex & SIGIL Consulting Group. (2015). Evaluación del plan de negocios del sector de turismo de salud. [http://www.andi.com.co/Uploads/PlanNegocios\\_Turismo\\_Salud.pdf](http://www.andi.com.co/Uploads/PlanNegocios_Turismo_Salud.pdf)

Colombia Productiva. (2018). Turismo de salud. <https://www.colombiaproductiva.com/ptp-sectores/historico/turismo-salud>

Colombia's Ministry of Commerce, Industry and Tourism – MINCIT. (2017). Programa de transformación productiva. <https://www.ptp.com.co/categoria/turismodesalud2017.aspx>

Connell, J. (2006). Medical tourism: sea, sun, sand and...surgery. *Tourism Management*, 27(6), pp1093-1100. <https://doi.org/10.1016/j.tourman.2005.11.005>

Connell, J. (2013). Contemporary medical tourism: Conceptualisation, culture and commodification. *Tourism management*, 34, 1-13. <https://doi.org/10.1016/j.tourman.2012.05>

[.009](#)

- De Arellano, A. (2007). Patients without borders: the emergence of medical tourism. *International Journal of Health Services*, 37(1), 193-198. <https://doi.org/10.2190/4857-468G-2325-47UU>.
- De La Puente, M, Arias, F, Caraballo, A & Matos, R. (2018). Desplazamiento transnacional con fines sanitarios. Editorial Bonaventuriana. (Original publicado en 2018)
- De La Puente, M., Correa, J. & Arias, F. (2017). Aproximaciones teóricas y conceptuales al aseguramiento sanitario desde la noción del actor no estatal en el sistema internacional. *Métodos* 15, 94-108. <http://186.113.25.117:4443/ojs/index.php/Methodos/article/view/126>
- Heung, V. C., Kucukusta, D. & Song, H. (2010). A conceptual model of medical tourism: Implications for future research. *Journal of Travel & Tourism Marketing*, 27(3), 236-251. <https://doi.org/10.1080/10548401003744677>
- Horowitz, M., Rosensweig, J. & Jones, C. Medical tourism. (2007). Globalization of the healthcare marketplace. *Medscape General Medicine*, 9(4), p. 33-55. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2234298/>
- Hopkins, L., Labonté, R., Runnels, V., & Packer, C. (2010). Medical tourism today: what is the state of existing knowledge?. *Journal of public health policy*, 31(2), 185-198. . <https://doi.org/10.1057/jphp.2010.10>
- Jones, C. A. & Keith, L. G. (2006). Medical tourism and reproductive outsourcing: the dawning of a new paradigm for healthcare. *International journal of fertility and women's medicine*, 51(6), 251-255. <https://pubmed.ncbi.nlm.nih.gov/17566566/>
- Lunt, N., & Carrera, P. (2010). Medical tourism: assessing the evidence on treatment abroad. *Maturitas*, 66(1), 27-32. <https://doi.org/10.1016/j.maturitas.2010.01.017>.
- MacReady, N. (2007). Developing countries court medical tourists. *The Lancet*, 369(9576), 1849-1850. [https://doi.org/10.1016/S0140-6736\(07\)60833-2](https://doi.org/10.1016/S0140-6736(07)60833-2).
- Ministerio de Relaciones Exteriores – Migración Colombia (2014). Turismo de salud en Colombia: Tendencias migratorias. <http://migracioncolombia.gov.co/phocadownload/Infograf%C3%ADa%20Turismo%20Salud.pdf>
- Passos-Simancas, E., & Arias-Aragones, F. (2016). El capital humano como factor de competitividad en la industria hotelera y turística en Cartagena. *Panorama Económico*, 24, 269-282. <https://doi.org/10.32997/2463-0470-vol.24-num.0-2016-1561>
- Redacción. (2010, 28 de mayo). Turismo de salud. Dinero. <https://www.dinero.com/caratula/edicion-impresa/articulo/turismo-salud/96660>
- Smith, R. Martínez, M. & Chanda, R. (2011). Medical tourism: A review of literature and analysis of a role for bi-lateral trade. *Health Policy*. 103(2-2), 276-282. <https://doi.org/10.1016/j.healthpol.2011.06.009>.
- Vargas, J. (2005). Cross border trade in Health Care Services between Tijuana, México and San Diego. *Revista de Economía Mundial*, 13(163-184). [http://www.sem-wes.org/sites/default/files/revistas/rem13\\_6\\_0.pdf](http://www.sem-wes.org/sites/default/files/revistas/rem13_6_0.pdf)

Viloria, J. (2005). Salud pública y situación hospitalaria en Cartagena. *Documentos de trabajo sobre economía regional*. Banco de la República.

<https://www.banrep.gov.co/sites/default/files/publicaciones/archivos/DTSER-65-%28VE%29.pdf>

Post Print CLÍO AMÉRICA VOL. 14 No 28 - 2020