

Microeconomics of Competitiveness

Medical Tourism Cluster

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INTRODUCTION

A. COSTA RICA

Costa Rica, which means “Rich Coast” in Spanish, is a country located in Central America between Nicaragua and Panama with a population of about 4.8 million (July 2015 est.) on a land area of 51,100 sq km sandwiched between the Caribbean Sea and the North Pacific Ocean¹. Costa Rica’s official languages are Spanish and English and, with tropical and subtropical climate, it is considered a “mecca” of ecotourism in Latin America. San Jose is the capital city with a population of 2.1 million (including the metro areas) and is considered one of the safest cities in Latin America.²

The Republic of Costa Rica is a democratic country divided into 7 provinces and it gained its independence from Spain on 15th September, 1821. Its legal system is based on the Spanish civil code and judicial review of legislative actions in the Supreme Court. President Luis Rivera (since 8th May 2014) has been both chief of state and head of government and he was directly elected by parliament on majority popular vote for a 4-year term.

Costa Rica has developed an extensive and high quality education system³ and its literacy rate of 96.3%⁴ is one of the highest in the region.

¹https://en.wikipedia.org/wiki/Costa_Rica

² https://en.wikipedia.org/wiki/San_José,_Costa_Rica

³ [p54, Global competitiveness Report 2013-2014](#)

⁴ [Central Intelligence Agency \(2011\)](#)

B. MEDICAL TOURISM INDUSTRY

“Medical tourism refers to the travel of people to another country for the purpose of obtaining medical treatment in that country. Traditionally, people would travel from less-developed countries to major medical centers in highly developed countries for medical treatment that was unavailable in their own communities; the recent trend is for people to travel from developed countries to third-world countries for medical treatments because of cost consideration, though the traditional pattern still continues. Another reason for travel for medical treatment is that some treatments may not be legal in the home country, such as some fertility procedures.”⁵

Medical tourism has developed into an international industry serving 8 million patients, generating a revenue of \$40 billion annually and growing at 20% annually.⁶ It not only provides patients with access to high quality care at an affordable cost but also helps them to get around government regulations which may restrict their ability to get certain procedures done eg. fertility treatments are banned in many Catholic countries. In the past 3 decades, the medical tourism industry in Costa Rica has grown almost purely from private initiative into an industry which employs around 10,000 people and contributes around \$350 millions to its exports. About 95% of the medical tourists are from North America and they predominantly who visit Costa Rica for dental and cosmetic work.

⁵ https://en.wikipedia.org/wiki/Medical_tourism

⁶ <http://brandongaille.com/9-medical-tourism-industry-statistics/>

COUNTRY ANALYSIS

A. OVERALL ECONOMIC PERFORMANCE

Costa Rica is an economic success story with a steady economic growth over the past two decades (Figures 1 & 2) through export-driven economic strategy, openness to foreign investment and effective trade liberalization. Though Costa Rica's exports were mainly agricultural products such as bananas, coffee, sugar and beef, but diversification into high value added sectors, such as production of medical devices, electronics devices and tourism have been successful. Foreign direct investment (FDI) has been growing due to factors such as political stability, relatively educated workforce and incentives offered in free trade zones⁷ (Figure 3).

However, Costa Rica's economy faces major challenges due to rising fiscal deficits, soaring public debt (59.7 % of GDP, 2015 est.) and low levels of domestic income as poverty rate has remained about 20-25 % of the population for almost twenty year⁸. Using the poverty line (US\$4) and the extreme poverty line (US\$2.5), about 12 % of Costa Rica's population is considered poor and 4.7 % extreme poor, which are less than the Latin American average⁹. Unemployment rate was 8.7 % in 2015, while inflation

⁷ World Bank, "Costa Rica Systematic Diagnostic."

⁸ CIA, "World Factbook."

⁹ World Bank Group, "International Bank for Reconstruction and Development, International Finance Corporation and Multilateral Investment Guarantee Agency: Country Partnership Framework for the Republic of Costa Rica for the Period FY16-FY20."

(CPI) was 3.2 %. GDP (PPP) was \$71 billion with 3.5 % growth and 5-year compound annual growth rate of 4.3 % & the GDP per capita was \$14,864 per capita in 2014¹⁰.

B. STRUCTURE OF ECONOMY

Costa Rica has a negative trade balance of \$6.7 billion as of 2013¹¹, major export products included electrical, electronic equipment, agricultural products, and medical equipment, while import products included electronics and mineral products and machinery (Figures 4-6). Since 1995, machinery/equipment manufacturing sector has evolved to be the biggest contributor to Costa Rica's export economy. Costa Rica's largest trading partner was the United States both in terms of export and import volumes

¹².

C. COMPETITIVENESS

Costa Rica ranked 53rd out of 124 countries on the economic complexity ranking¹³, 50th on the global ranking of the economic freedom index¹⁴, 52nd out of 140 countries on the global competitiveness ranking¹⁵, 51st on the global innovation ranking¹⁶ and the highest performance indicator was in the quality of health and primary education¹⁷ (Figure 7).

¹⁰ Heritage Foundation, "2016 Index of Economic Freedom: Costa Rica Country Report."

¹¹ UN Comtrade, "International Trade in Goods Based on UN Comtrade Data."

¹² Atlas of Economic Complexity, "What Did Costa Rica Export in 2014?"

¹³ Atlas of Economic Complexity, "Country Rankings (2014) | The Atlas of Economic Complexity."

¹⁴ Heritage Foundation, "Country Rankings."

¹⁵ World Economic Forum, "Competitiveness Rankings."

¹⁶ World Intellectual Property Organization, "The Global Innovation Index | Leading Innovation Reference."

¹⁷ World Economic Forum, "Performance Overview: Costa Rica."

D. MACROECONOMIC FACTORS

In terms of macroeconomic indicators, Costa Rica has been performing better than most other Latin American countries. However, rising fiscal deficits and public debt due to increased public spending show signs of declining productivity, weakened investment environment and stagnated economic growth (Table 1)¹⁸. There has also been a sign of weakening financial sector performance due to increased dollarization of the local financial reserves (bank loans), which poses a significant vulnerability of the local currency depreciation, slower productivity and more volatile macroeconomic performance¹⁹.

The Costa Rican economy has transformed over the past 3 decades from one which relied primarily on the export of agrarian commodities (coffee, bananas & sugar) to one which is extremely diversified (~3000 products) and successful. Total exports in 2013 were about \$12 billion - Hybrid electronic circuits was the leading durable export category, followed by pineapple, banana, medical equipment, medical bioproducts, and coffee, juices, prosthetics, and surgery tools; these categories added up to over 50% of exports²⁰.

¹⁸ World Bank Group, "International Bank for Reconstruction and Development, International Finance Corporation and Multilateral Investment Guarantee Agency: Country Partnership Framework for the Republic of Costa Rica for the Period FY16-FY20."

¹⁹ OECD, "OECD Economic Surveys Costa Rica."

²⁰ https://en.wikipedia.org/wiki/Economy_of_Costa_Rica

This rapid growth in exports was a result of long term macroeconomic stability, trade liberalization and government policies to attract FDI by setting up Free Trade Zones (FTZ)s. Moreover Costa Rica had a well educated workforce, an independent and effective legal system and an attractive location.

These factors helped to establish two key clusters in Costa Rica from scratch- electronics and medical devices. Tourism is the largest foreign exchange earner for Costa Rica, with over 2.5 million tourists visiting in 2015, roughly a third of which come from US. Costa Rica is also a pioneer in the concept of ecotourism, which has helped it to differentiate itself and preserve its environment and biodiversity.

E. Endowments:

Due to geographical location and nature Costa Rica has managed to establish itself as a main destination for tourism in the region. With its diverse terrain between the highlands, forests, volcanoes and sea. Costa Rica enjoys a very attractive location in central America with its U.S. central time zone and just 5 hours far away from New York. Costa Rica has two international airports that connect with over more than 720 flights that fly to 43 destinations.

Also Costa Rica has a main close access to seaports such as “Port Caldera” on the Pacific Ocean and “Port Limon & Moin” on the Caribbean Sea. On the other hand there

several water passages that are used for every day and commute and also serve as a tourist routes. The country is very well connected with highways and roads.²¹

Costa Rica has a tropical climate with an average temperature of 22 degrees Celsius (72 degrees Fahrenheit) that increases considerably on the coastal areas. It also has 5% of earth's biodiversity where 26% of the land is protected land.

In terms of its human capital the Costa Rican workforce is among the highly educated and productive population in Latin America. Costa Rica spends 7.1% GDP on education and it had a free and mandatory primary education since 1870. According to the United Nations Human Development Report 2014, Costa Rica's literacy is 96.3%, and according to the World Economic Forum it ranks 21 in quality education system. Costa Rica has 60 universities, 5 of which are public.

The government has recognized the importance of English language for the education system leading to a 86.2% in primary schools attending English in the country. This has led to majority of people at least have a certain level of English knowledge.

Costa Rica has also set itself among the highest investor in public health in the region where it spends 10.9% GDP on healthcare the life expectancy at birth is at 79.7 years and it is rated the second lowest infant mortality rate in Latin America. It has 76.8 medical doctors per every 100,000 inhabitants.

²¹ <http://www.visitcostarica.com/ict/paginas/informacion.asp>

Political stability has enabled Costa Rica to enjoy a peaceful impact as it has more than one hundred and ninety years of democratic tradition, and more than half a century without an army. This in result provided for a social democratic model that facilitated economic stability and strong institutions.

F. FDI Management:

Costa Rica has benefited from foreign investment in electronics and healthcare. Its membership in the Central America–Dominican Republic–United States Free Trade Agreement and pending full membership in the Pacific Alliance trade pact have opened sectors such as insurance and telecommunications to private investors.²²

Costa Rica is among the most open Latin American countries in FDI policies, comparing to its region and to many other regions in the world. It has managed to successfully attract foreign investments in key sectors, especially in high-tech sectors. FDI has been going to sectors such as electronics, manufacturing, tourism, real estate and services. Tourism was the main destination for FDI, capitalizing on the beautiful beaches and ecotourism opportunities in the country, especially in Guanacaste and Puntarenas.²³

²² <http://www.heritage.org/index/country/costarica>

²³ Foreign Investment and Economic Development in Costa Rica: The Unrealized Potential, Jose Cordero and Eva Paus, *Working Group on Development and Environment in the Americas, April 2008*

G. Ease of Doing Business:

ECONOMY OVERVIEW

REGION	Latin America & Caribbean	DOING BUSINESS 2016 RANK	DOING BUSINESS 2015 RANK ⁽¹⁾	CHANGE IN RANK
INCOME CATEGORY	Upper middle income	58	79	↑ 21
POPULATION	4,937,755	DOING BUSINESS 2016 DTF (% POINTS) ⁽¹⁾	DOING BUSINESS 2015 DTF (% POINTS) ⁽¹⁾	CHANGE IN DTF (% POINTS) ⁽¹⁾
GNI PER CAPITA (US\$)	9,750	68.55	63.59	↑ 4.96
CITY COVERED	San José			

In terms of ease of doing business Costa Rica has

been working to establish itself as an open for business environment through developing its open trade policies and regulations. In the World Bank “Ease of Doing Business” ranking it was ranked 58. And among Latin American countries it places itself in the top 5 countries. Showing improvement in most of the areas that are measured between 2010 and 2015.

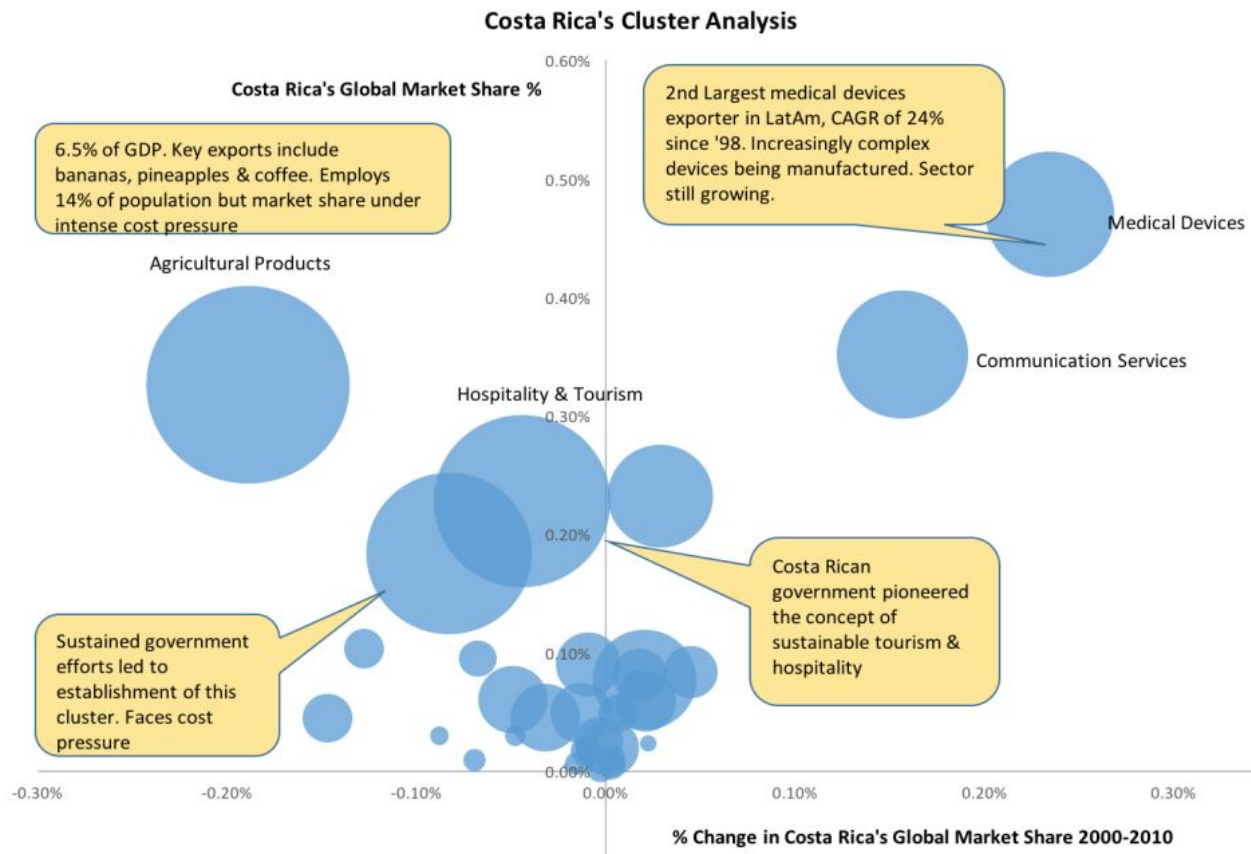
Topics	DB 2016 Rank	DB 2015 Rank	Change in Rank
Starting a Business	121	116	+ -5
Dealing with Construction Permits	49	46	+ -3
Getting Electricity ✓	23	30	+ 7
Registering Property	53	52	+ -1
Getting Credit ✓	7	90	+ 83
Protecting Minority Investors	166	165	+ -1
Paying Taxes ✓	80	119	+ 39
Trading Across Borders	67	67	No change
Enforcing Contracts	124	121	+ -3
Resolving Insolvency	87	87	No change

✓=Doing Business reform making it easier to do business. X=Change making it more difficult to do business.
[Click here to see all reforms made by Costa Rica.](#)

source:<http://www.doingbusiness.org/data/exploreconomies/costa-rica>

The main challenges for firms in Costa Rica is having better access to finance and eliminating the practices of informal businesses that create a barrier for businesses.

H. Experience in Developing Clusters:



Costa Rica has a successful record in growing a number of different clusters. Through its commitment to develop its competitiveness it has effectively managed to develop the ICT cluster by being a central hub in the region for many global companies such as Intel, HP, and IBM. Costa Rica has developed its agricultural products cluster which account for 6.5% of GDP. Costa Rica's success in developing its electronics, hospitality and medical devices clusters indicates that it has the institutional capabilities and knowledge to build medical tourism cluster as well.

CLUSTER ANALYSIS

A. Overview of the Medical Tourism Industry

The medical tourism industry developed due to failure of governments in providing the right quality of medical services at the right costs for their citizens. The globalization forces in the world also had a major impact on the development of this industry.

“Traditionally, healthcare has been relatively unaffected by international trade, and health care markets were relatively closed national entities (Adlung 2002). However, institutions such as the World Trade Organization and agreements such as the General Agreement on Trade in Services (GATS) have steadily opened up these markets to foreign competition, typically focusing only on privately-provided healthcare (Smith 2006a, 2006b). International trade in health care services has grown steadily (Blouin 2005), including such venues as medical tourism, telemedicine, temporary movements of medical professionals across borders, and affiliate offices of health care corporations abroad.”²⁴

The global revolution in Information Technology has reduced the information asymmetry to a large extent and has enabled potential medical tourists to evaluate the service, quality and cost from their home country. A corresponding boom in air connectivity has made the task of travelling large distances seem less intimidating than before.

²⁴ Warf,Barney “Do you know the way to San Jose? Medical Tourism in Costa Rica”, p53

B. Journey of a Medical Tourist

The process by which a medical tourist decides the country in which he/she receives medical treatment has two main components:

- **Search** for the right medical provider

The search for the right kind of care provider is a long process where the patient weighs many variables, such as advice from his primary physician in his home country, similar experience of people known to him, reputation of the country that he is evaluating, cost of procedure, quality of aftercare, dispute resolution mechanisms etc. Broadly, these factors can be divided as:

1. Country Environment
2. Medical Tourism Industry (Macro)
3. Facility & Services (Micro)

- **Experience** of actual medical care

There are 24 different touch points and service providers each of whom impact the quality of care - there is rarely a central coordinator who can manage these services for the patient. To make matters worse, the patient has to undertake 13 different steps²⁵ to actually complete the treatment process. Given these limitations, patients rarely seek foreign treatment for critical conditions and instead seek help for low risk work.

²⁵ Dubai HealthCare City 2014

C. Evolution of Medical Tourism Industry in Costa Rica

The medical tourism industry in Costa Rica has evolved almost entirely from private initiative, and the first medical tourists arrived in the 1980s searching for low cost cosmetic surgery.²⁶ The country's health tourist market rose in earnest, however, during the mid- 1990s, when a group of plastic surgeons led by Drs. Arnaldo Fournier, Ernesto Martén, Ronald Pino, and Gabriel Alberto Peralta, all trained in Miami, began utilizing their connections to the U.S. to draw foreigners more systematically.²⁷ These patients primarily came in for cosmetic surgery procedures such as Botox, Facelifts and Liposuction & even today a large majority of the patients come in for such procedures, given the lack of insurance cover and the cost difference.

Since 1980s, the number of medical tourists entering Cuba have increased to about 50,000 annually, spending on average 7000\$ for their experience, providing revenue of about \$350M & providing employment to about 10,000 people. Globally, Costa Rica ranks highly against competition, scoring particularly well in the overall quality of its medical industry and the quality of its facility and services.²⁸

However, about 60% of the procedures done are either dental or cosmetic services and more than 95% of its customer base is from North America (US 83% and Canada 11%).

²⁶ Warf,Barney: Do you know the way to San Jose? Medical Tourism in Costa Rica.Journal of Latin American Geography, Volume 9, Number 1, 2010, pp 54

²⁷ Ibid ,pp 54

²⁸ Source : Adapted from www.medicaltourismindex.com

D. Current Status of Industry in Costa Rica

“The driving force behind tourists’ demand for medical services abroad is, as one might suspect, the significant cost differences for different procedures between the U.S. and other countries. American health care costs are generally higher due to several factors, including insufficient preventative health care, higher overhead and administrative expenses, a focus on specialized rather than primary care, higher salaries of physicians, the cost of malpractice insurance, and the sophisticated, expensive, capital-intensive medical equipment, and the large number of medical tests performed, often motivated by fear of litigation.”²⁹

Medical services currently offered in Costa Rica cost about 40% of what they would cost in the US. Moreover, the waiting times are much less which is attractive to patients from Canada and Germany. Costa Rica’s medical tourism industry is concentrated in the San Jose region with 3 private hospitals leading the efforts : Clínica Bíblica, Hospital la Católica, and the Center for International Medical Advanced (CIMA).³⁰ These hospitals are accredited by Joint Commission International (JCI), the world’s foremost body that monitors the quality of health care facilities. In Nov 2007, Costa Rican physicians, hospitals, and government agencies formed a public-private partnership, the Council for the International Promotion of Costa Rica Medicine (PROMED).³¹ Procomer, the exports promotion agency, has also made efforts to attract foreign tourists from North America.

²⁹ Warf,Barney: Do you know the way to San Jose? Medical Tourism in Costa Rica.Journal of Latin American Geography, Volume 9, Number 1, 2010, pp 56

³⁰ Ibid, pp 58

³¹ Ibid, pp 61

E. Cluster Analysis

Costa Rica's Medical Tourism Cluster is very complex in structure with many players active in different industry and cluster. There is very little coordination among the parties and there is no overarching institute for coordination. There are 24 parties directly involved in the cluster with 4 industry IFCs and 5 Government institutions involved in the cluster. The major industry players are the 5 private hospitals, and 1200 private clinics. A cluster map is available in the annex. The cluster has been growing completely through private initiatives. The medical tourist is taking all the services from private hospitals and clinics. PROMED is the membership organization of the firms which are involved in the medical tourism cluster ranging from hospital clinics to tour operators and SPAs. Its main goal is to make Costa Rica a leader in the global healthcare.

The Cluster is doing very well and growing steadily for the last 30 years. One of the major reasons for the growth could be the nation's health care system has been doing very well. It has the highest amount of health care expenditure among the Latin American countries (9.9% in 2013³²). Costa Rica is also highly educated workforce (97.4% in 2011³³) with high number of tertiary educated (25.3% in 2013³⁴). The country's political stability and ease of doing business enable the growth of small businesses and clinics to serve the growing medical tourism industry.

The cluster diamond has a number of positive aspects leading to the growth of the

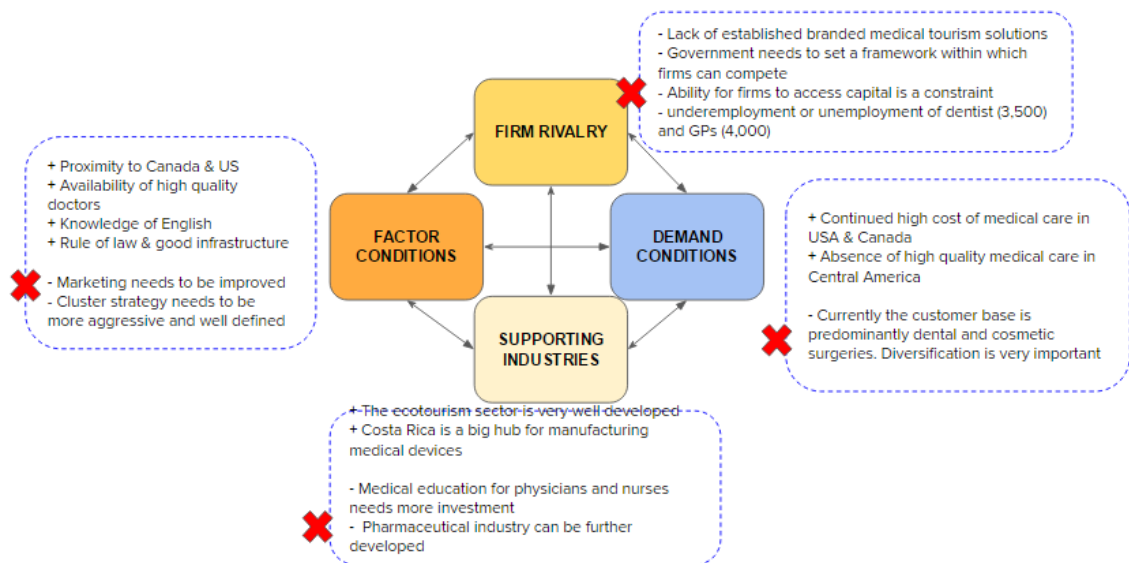
³² PROMED presentation "**Turismo Médico en Costa Rica**"

³³ Ibid

³⁴ Ibid

cluster. However, for sustainable future growth a number of challenges remain to be solved. The factor conditions are very favourable for the cluster due to the proximity to the US and Canada. English is also spoken by a large number of population. Most of the doctors has advanced degree from US. Costa Rica's stable political and security situation is a major advantage for the medical tourists. Country's stability is not very well know in the outside countries. It has to promote its stable and security image to the outside world through national branding and marketing efforts.

The supporting industries are very well developed. It is already one of the top ecotourism and wellness tourism destination among the world. The tourism sector is very big advantage for the cluster. It is also supported by medical device manufacturing cluster for creating a high quality health care provider image. It has a nascent pharmaceutical industry which can be further developed and explored for the development of the cluster.



The cluster is too dependent on the US and Canadian high cost medical care. It only serves the segment that is not covered by the US or Canada's insurance sector i.e. dental and cosmetic surgery. More than 90% of the patients are US and Canadian and 80% of the service taken is dental and cosmetic surgery. However, the cluster has significant potential to cover the underserved Latin American patients with high quality care in other essential health care such as heart disease etc.

The cluster does not have any specific strong brand presence intermes of any group of service providers is more competitive than others. Though there are many players in the cluster but the level of competition is not very high leading to lack of excellence in service or diversification of service. There is no domestic benchmarking available. All the hospitals and clinic are competing based on the international accreditation and recognition. The financing in the sector is also not very promising. There is no FDI in the cluster and the availability of financing in building hospitals is not very promising. There are huge number of dentist (3500) and general practitioner (4000) who are underemployed in the country. These resources can be used more effectively to increase the service rage of the cluster.

RECOMMENDATIONS

RECOMMENDATION 1 : STRENGTHEN ROLE OF IFCs

The cluster has a number of IFCs who are active in the sector. Among them the most visible is PROMED. It is a membership organization of a wide range of firms in the cluster who are all private providers of medical and tourism related services. However, it does not have any overarching power to formulate and coordinate strategy for the cluster and very limited policy influencing capacity. It does not have any focused and specific vision or goals to improve the cluster. It targets very generic and broad mission of making the Costa Rica as a global healthcare leader which is not very conducive for addressing the cluster specific problems. There are 4 associations of the medical practitioners. These associations are not part of PROMED or any concerted effort for the development of the medical tourism in Costa Rica. They are not proactive in supporting the international accreditation for the Costa Rican Doctors. CINDE is a NGO for the FDI promotion in Costa Rica. Though CINDE is a proactive organization supporting the medical tourism sector however, it has not been successful in facilitating any major investment in the cluster. A detailed list of IFCs and their role is in the annex.

RECOMMENDATION 2: STRENGTHEN THE GOVERNMENT AGENCIES

None of the government ministries relevant for the sector is involved in the cluster development initiatives. Ministry of Health is not involved in developing the capacity of the Costa Rican Health Care sector to attract more foreign medical tourist. Ministry of

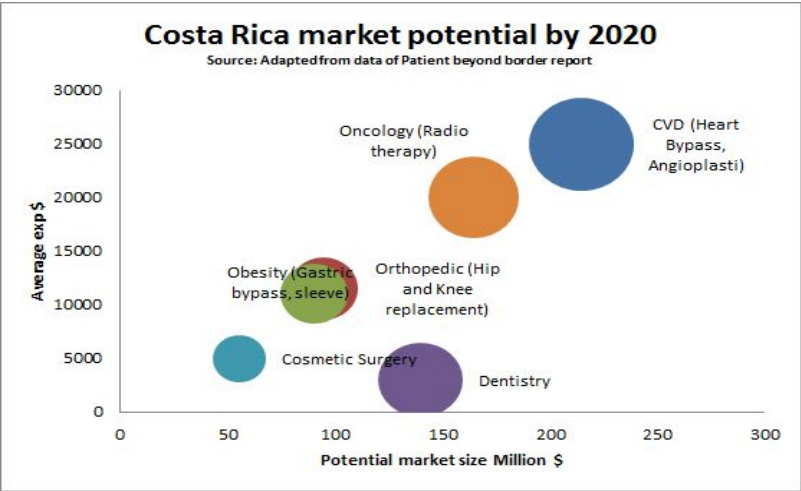
Tourism also has no strategy or objective to promote the cluster. Ministry of Education is also not involved to promote quality medical education in the country. These organizations have to coordinate among themselves for the growth and long term sustainability of the cluster by creating appropriate policies and capacity to serve the medical tourist. For example the Ministry of Health should have policies to upgrade all the government hospitals to provide service for fees to the Medical tourist. It should focus on the areas where the future growth of the medical tourist is foreseen and update the health care system to deal with them with efficiency and quality.

Apart from the ministries, government also has an export promotion agency named PROCOMER. The agency is promoting the medical device and pharmaceutical sector, but does not have any specific program for the medical tourism as a service export sector. Though the government has declared medical tourism a priority sector in 2009 (President Arias executive order) but there is not government strategy or policy targeting the development of the cluster. The ministry of Health, tourism and education is not coordinating any step for the future growth and sustainability of the cluster. A detailed list of public agencies is available in the annex.

RECOMMENDATION 3: DIVERSIFY CUSTOMER BASE

Costa Rican Medical Tourism is highly dependent on the US and Canadian medical tourists (90%) taking dental and cosmetic surgery (>60%). This heavy dependency on the US and Canadian health insurance inefficiency is a major threat for the long term

sustainability of the cluster. If the US and Canadian health care system started to cover the dental and cosmetic surgery then the cluster will lose significant amount of the business. Besides the procedures are also not yielding high value compared to the cardiovascular, oncological or orthopedic procedures. The US and Canadian health care system will face significant stress from CVD, Oncological or orthopedic surgery due the rise of these diseases due to the growing old population. Currently a small portion of the medical tourist is taking these services from Costa Rica. but future growth opportunity is significant from these procedures. Taking the current growth rate into consideration (20% global growth of the medical tourist) and projecting that Costa Rica promotes itself as a quality service provider in the CVD, Oncology and Orthopedic treatment, which will result in higher growth rate in those segments, we estimate that there is significant opportunity for the cluster.



Costa Rica also has a significant opportunity to increase the latin american medical tourist in the country by promoting the quality of the service in Costa Rica. The

neighbouring countries seek quality health care service and goes to US, Canada or Mexico for treatment. If Costa Rica can attract these tourist in the country then the volume of the tourist will increase significantly. Therefore Costa Rica should promote the medical tourist sector in such a way that the image of the country improves to quality health care provider in the areas of CVD, Oncology and Orthopedic surgical procedures.

RECOMMENDATION 4: MARKET COSTA RICA'S MEDICAL TOURISM

We have identified that Costa Rica medical tourism has low brand awareness among its prime markets. Marketing efforts have be made by different entities, like Promed, to promote Costa Rica medical tourism, but US and Canadian customers are still not well informed about this cluster and its services. Another challenge that we have identified is that many (potential) customers still perceive Costa Rica as potentially low quality medical service as they are association Costa Rica with developing nations and therefore low quality of medical service.

We recommend that Promed, in conjunction with government institutions such as Procomer and the Ministry of Foreign Affairs should promote medical tourism in US and Canadian more aggressively and with more coordination, with focus on establishing Costa Rica as trusted quality medical tourism destination. Another focus of marketing efforts can be directed towards marketing Costa Rica as medical conferences destination, as Costa Rica has potential to become big hub for medical conferences.

Marketing efforts also need to be directed towards new markets, especially markets in Central and South America, as Costa Rica needs to diversify its customer base and reach new markets.

We have also identified that there is no end to end management of a medical tourist needs, which makes it harder for customers to complete the whole arrangement at one point of sales. We recommend closer cooperation between public and private sector in order to establish unified end to end management system, so that customers can acquire all that they need at one point of sale.

Customer satisfaction is extremely important for establishing good brand image, and part of that is also Conflict/Grievance resolution system. We have identified that this system in Costa Rica doesn't exist, and that customers have problems addressing their complaints regarding medical services. We recommend that government needs to establish a trusted redressal system which will protect customer rights, and that way provide more security and reduce their perceived risks.

RECOMMENDATION 5: INVEST IN HUMAN CAPITAL

As we mentioned in this report, there are huge number of dentist (3500) and general practitioner (4000) who are underemployed in the country. So there is oversupply of

dentists and general practitioners, on the other side there is scarcity of domestically trained specialized doctors. In order to diversify medical services, and move up in the value chain, Costa Rica needs to increase the number of specialized doctors. We recommend that Costa Rica government, in coordination with private sector, increases domestically trained specialized doctors by investing more in medical schools and by providing more incentives for students (scholarships). We also recommend that government establish more scholarships for study abroad, and create partnerships with distinguished medical schools, so that they can train students in the best schools, and provide them with scholarships that will also require from the student to come back to the country. Government can also establish partnerships with distinguished foreign medical schools in order to increase the capacity of domestic medical schools and that way create even more sustainable, long term change that will affect positively the development of Medical cluster in Costa Rica.

RECOMMENDATION 6: MICRO IMPROVEMENTS

(i) Increase incentives for FDI to invest in hospitals

Even though we have identified that FDI has been growing due to factors such as political stability, relatively educated workforce and incentives offered in free trade zones, we have identified that Medical tourism sector is getting very small effect from that as most of FDI goes to high-tech sectors. CINDE has not been very successful in

attracting FDI for Medical tourism cluster. In order to build more hospitals, and grow the Medical tourism cluster, we recommend that public and private sector must work together in order to attract more FDI.

(ii) Government incentives to develop its oncology, geriatric and reproductive health

In order to adapt to its major markets (US and Canada), diversify its medical services offer and move up in the value chain, Costa Rica government, in coordination with private sector, needs to provide incentives for further development of oncology, geriatric and reproductive health. These incentives could be tax reduction for investment in these areas, scholarships for students who study these fields abroad.

(iii) Establish partnerships with US/Canada insurance companies

As mentioned before, Costa Rica needs more aggressive marketing in its prime markets (US, Canada) in order to increase awareness and establish brand image as low cost but trusted medical service destination. In order to do that, partnering with local US/Canadian insurance companies can be a good strategy. We recommend that Costa Rica government, in cooperation with private sector, reach out to US/Canada advertising agencies, hospitals, lobby groups and especially important insurance companies, in order to increase market penetration and attract more tourists.

(iv) Strengthen the cooperation between government & private sector

As we have mentioned in most of previous recommendations, the cooperation between government and private sector is the key in the case of Costa Rica Medical tourism cluster. Private sector knowledge of business and the market and government ability to provide different incentives, international support, invest in infrastructure and create proper legal framework together can produce well aimed and coordinated action which can result in further Medical tourism cluster development.

APPENDIX

COUNTRY ANALYSIS:

A. ECONOMIC PERFORMANCE:

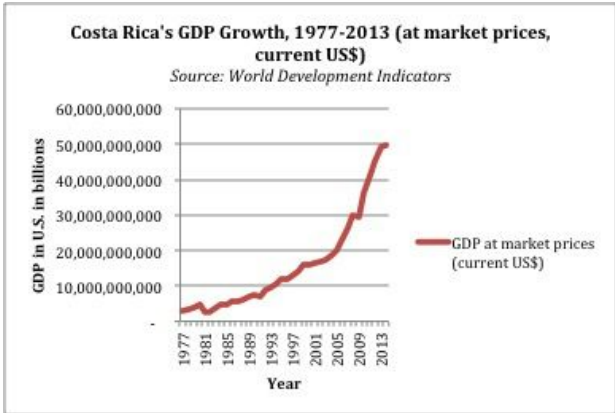


Figure 1: CR's GDP Growth, 1977-2013. Source: World Development Indicators.

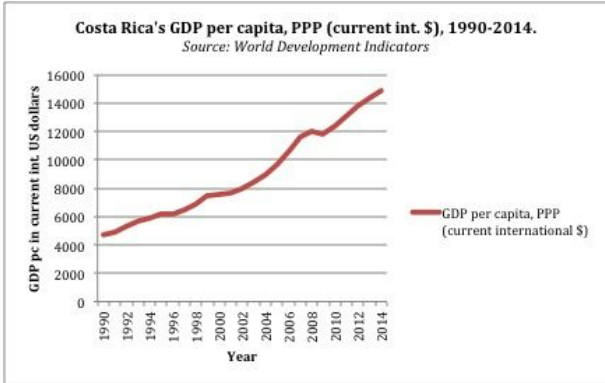


Figure 2: CR's GDP per capita, 1990-2013. Source: World Development Indicators.

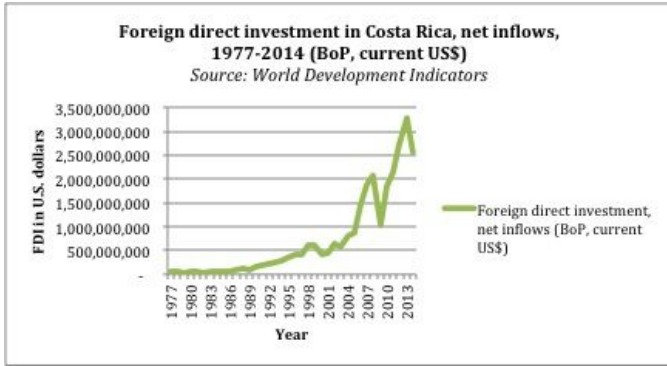


Figure 3: CR's FDI Inflows, 1977-2013. Source: World Development Indicators.

B. ECONOMIC STRUCTURE

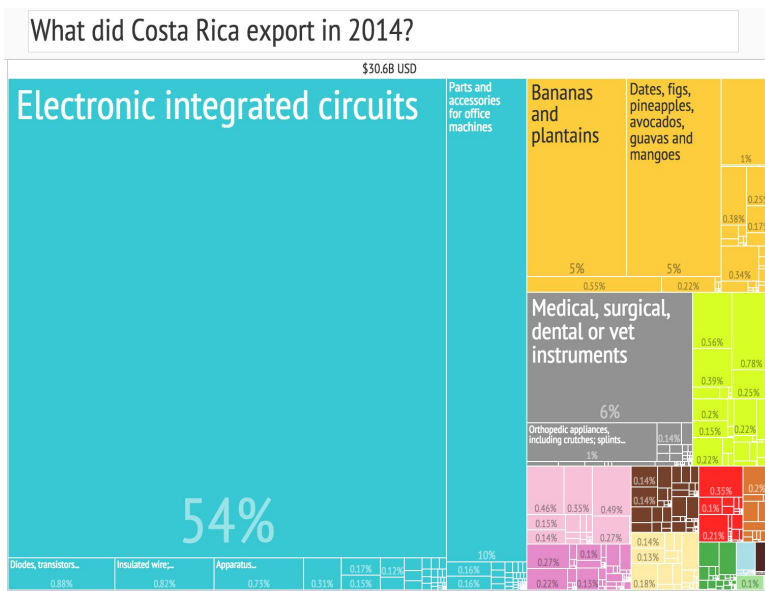


Figure 4: CR's Export Structure in 2014. Source: Atlas of Economic Complexity.

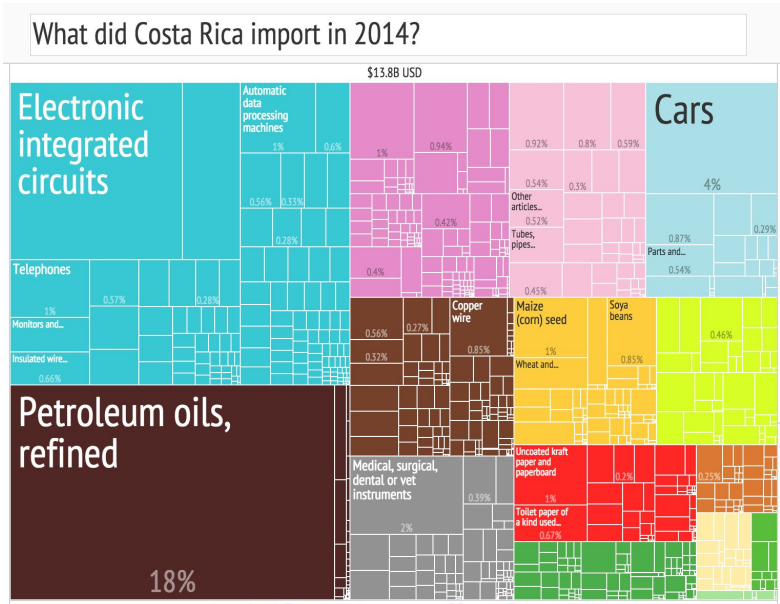


Figure 5: CR's Import Structure in 2014. Source: Atlas of Economic Complexity.

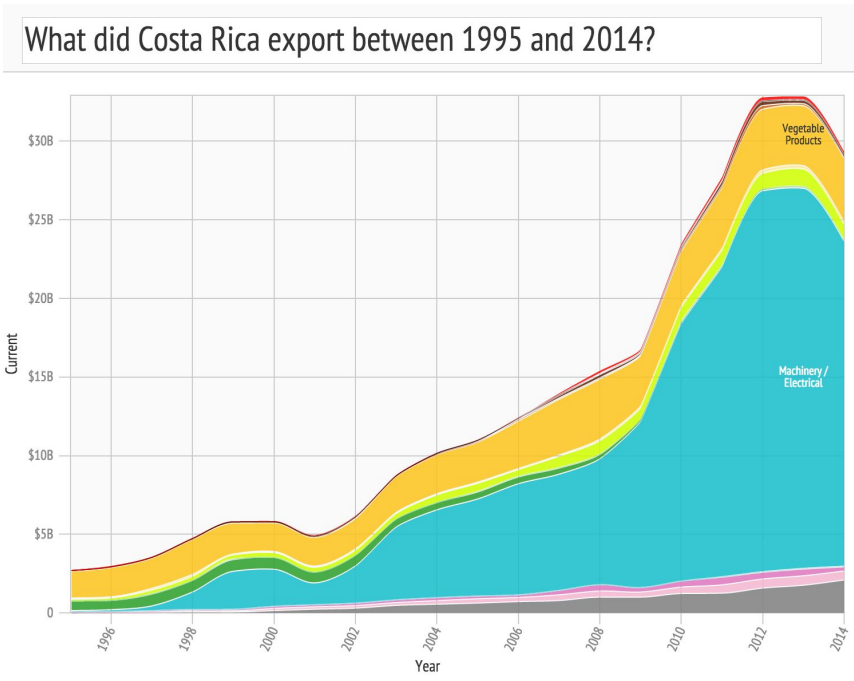


Figure 6: CR's Export Sector, 1995-2014. Source: Atlas of Economic Complexity.

C. COMPETITIVENESS

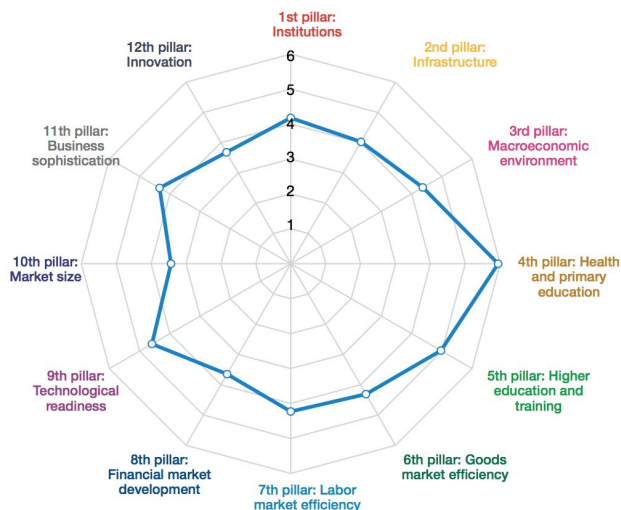


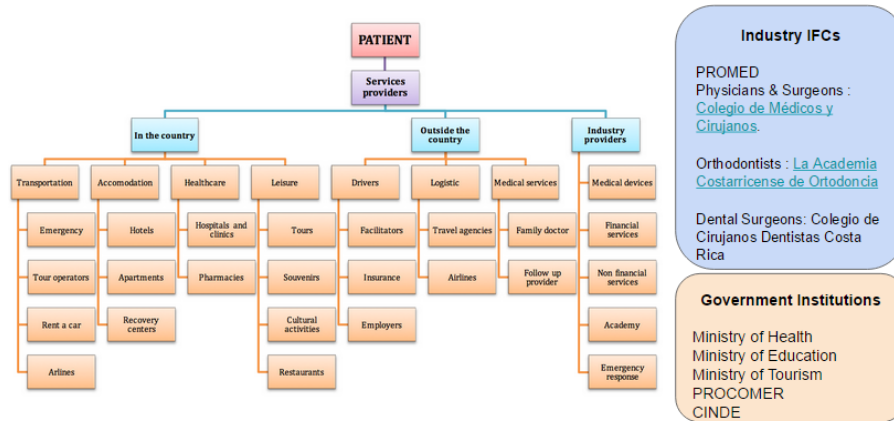
Figure 7: CR's Competitiveness Indicators in 2014. Source: World Economic Forum

D. MACROECONOMIC FACTORS:

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Income and Prices								projection	
GDP growth (% change)	2.7	-1.0	5.0	4.5	5.2	3.4	3.5	3.4	4.2
GDP per capita (% change)	1.2	-2.5	3.5	3.2	3.8	1.2	1.3	1.2	2.0
Inflation (cpi end of period % change)	13.9	4.0	5.8	4.7	4.6	3.7	5.2	4.5	4.0
Investment and savings									
Gross domestic investment	27.6	16.3	20.7	21.9	21.7	21.3	21.1	20.3	20.7
Gross domestic savings	18.2	14.3	17.1	16.5	16.5	16.3	16.1	15.6	16.2
Central Government									
Total revenues and grants	15.9	14.0	14.3	14.5	14.3	14.2	14.1	14.6	15.5
Tax revenues	15.3	13.4	13.0	13.3	13.2	13.3	13.2	13.6	14.7
Total expenditure	15.7	17.4	19.5	18.6	18.7	19.6	19.8	19.8	19.7
Current expenditure	13.5	15.6	17.2	17.1	17.3	18.0	18.1	18.0	17.9
Capital expenditure	1.8	1.8	2.4	1.5	1.5	1.6	1.7	1.8	1.8
Primary balance	2.4	-1.3	-3.1	-1.9	-2.3	-1.6	-3.1	-2.5	-1.5
Overall balance	0.2	-3.4	-5.2	-4.1	-4.4	-5.4	-5.7	-5.2	-4.2
Gross Debt	24.8	27.2	29.1	30.6	35.1	37.0	39.0	41.9	42.8
General Government									
Primary balance	2.4	-1.3	-3.0	-1.9	-2.3	-2.8	-3.2	-2.6	-1.6
Overall balance	-0.3	-3.6	-5.4	-4.3	-4.6	-5.6	-5.8	-5.3	-4.3
Consolidated public sector debt1	30.8	33.3	33.9	36.3	41.7	45.1	47.3	50.0	51.7
Balance of payments									
Current account balance	-9.3	-2.0	-3.5	-5.3	-5.3	-5.0	-5.0	-4.7	-4.5
Trade balance (Goods)	-17	-7	-9	-12	-12	-11	-12	-11	-12
Exports	31.9	30.1	26.2	25.3	25.3	23.5	23.8	24.0	24.4
Imports	49	37	36	38	37	35	35	35	36
Foreign direct investment	6.9	4.6	4.0	5.1	4.2	4.8	4.4	4.0	4.0
Net international reserves (millions of US\$)	3,799	4,066	4,627	4,756	6,857	7,331	7,211	-	-
Memorandum item:									
Nominal GDP (billions of colones)	15,702	16,845	19,087	20,852	22,782	24,607	26,948	29,528	31,998

Table 1: CR's Macroeconomic Indicators. Source: World Bank Group.

Cluster Analysis of Costa Rica Medical Tourism



IFCs and Public Institutions

INDUSTRY GROUPS:	
<p>PROMED: (www.promedcostarica.org)</p>	<p>Description: Membership-based, non-profit organization dedicated to ensuring industry standards, organizes and attends conferences, offers networking, business growth and educational programs for its members in areas of medical tourism, healthcare, retirement living and related services. Research Results: Lacks support and coordination from the CR government.</p>
<p>MEDICAL CERTIFICATION BOARDS AND ASSOCIATIONS:</p>	<p>Description: 4 main licensing organizations provide certifications for doctors in categories of surgeons and physicians, dental surgeons, psychologists, and orthodontists. Provides quality assurance for doctors' credibility. Research Results: Costa Rica medical boards do not have English websites and appear to be local in operations. However, most doctors on their web sites referred to their various memberships in associations not only in Costa Rica but also in the United States.</p>
<p>INTERNATIONAL ACCREDITING BODIES:</p>	<p>Description: International accrediting bodies such as JCI, AAAHC, AAASF provides quality assurance and accreditation for hospitals and medical services. Through on-going survey and quality assurance measures, accredited hospitals must meet certain standards. Health insurance companies requires international accreditation for medical reimbursements. Research Results: There are a limited number of internationally accredited hospitals and medical labs.</p>
<p>CINDE: (www.cinde.org/en)</p>	<p>Description: Private, non-political, non-profit investment (FDI) promoting agency. Offers four main services for investors from North America and other countries: assistance in site selection, meeting the investor's needs by arranging meetings with various stakeholders, providing networking opportunities, and specialized support for launching business in the country by continued support and expertise in business expansion. Research Results: Works closely with PROMED and facilitated our communications. Services are free of charge, attracted 250 high tech companies in its 32 years of history including Intel, Procter & Gamble and Western Union.</p>

PUBLIC INSTITUTIONS:

PROCOMER:
www.procomer.com/en

Description: Promotes Costa Rica's export products and services, trade and investment, generates exportation chains, simplifies exportation procedures, keeps trade data and provides market research studies and services. Diversifies the country's economy and increase economic competitiveness by becoming the strategic benchmark for the private sector.

Research Results: Focused on investment, trade, export and import services but lacks coordination and cooperation with PROMED and other players in the medical tourism industry.

TOURISM BOARD:

Description: Promotes sustainable tourism in Costa Rica. Provides tax exemptions for companies operating in the tourism sector. Introduced a voluntary certification for sustainable tourism program (CST) to reserve natural and social resources, encourage active local participation, and increase the competitiveness of the sector.

Research Results: There are no clear partnership links with PROMED in developing medical tourism in Costa Rica.

MINISTRY OF HEALTH:

Description: Responsible for regulating the healthcare industry and acts as the regulatory agency for food, drugs, Chemicals and medical devices ensuring products are up to standards.

Research Results: It does not have any direct links with medical tourism industry as the services are mainly geared towards foreign nationals.

EDUCATIONAL INSTITUTIONS:

Description: There are seven medical schools that offer medical degrees similar to the U.S. standards. Mainly located in San Jose and teaches in Spanish but all are members of the Foundation for Advancement of International Medical Education and Research.

Research Results: Lack of research and cooperation in the field of medical tourism with relevant industry players. Limited number of schools accredited by international standards.

Global Competitiveness Index

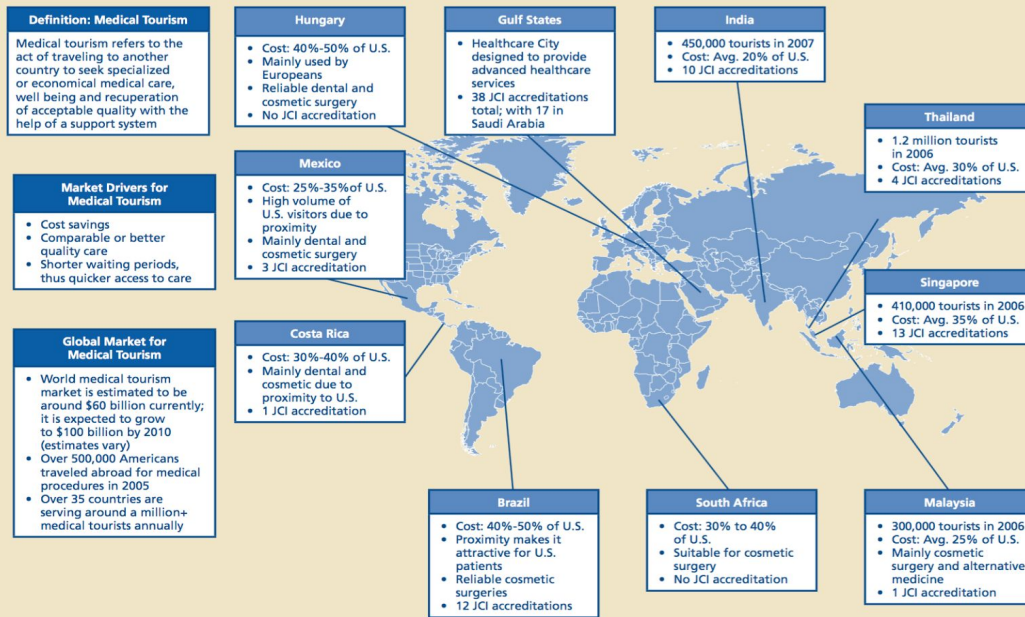
	Rank (out of 140)	Score (1-7)
GCI 2015–2016	52	4.3
GCI 2014–2015 (out of 144)	51	4.4
GCI 2013–2014 (out of 148)	54	4.3
GCI 2012–2013 (out of 144)	57	4.3
Basic requirements (37.3%)	64	4.6
1st pillar: Institutions	49	4.2
2nd pillar: Infrastructure	71	4.0
3rd pillar: Macroeconomic environment	94	4.4
4th pillar: Health and primary education	55	5.9
Efficiency enhancers (50.0%)	57	4.2
5th pillar: Higher education and training	35	5.0
6th pillar: Goods market efficiency	67	4.3
7th pillar: Labor market efficiency	70	4.2
8th pillar: Financial market development	85	3.6
9th pillar: Technological readiness	49	4.6
10th pillar: Market size	83	3.4
Innovation and sophistication factors (12.7%)	38	4.0
11th pillar: Business sophistication	37	4.3
12th pillar: Innovation	39	3.7



Stage of development



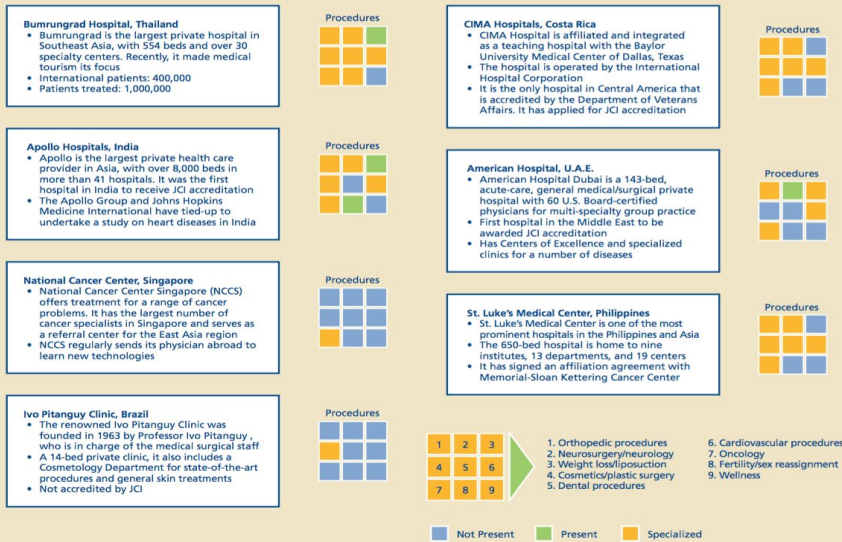
Figure 5: Medical Tourism and Medical Traveling



Note: JCI accreditation details at www.jointcommissioninternational.org/23218/fortiz/. Other sources and explanation appear in Appendix II.

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Non-U.S.-based International Providers

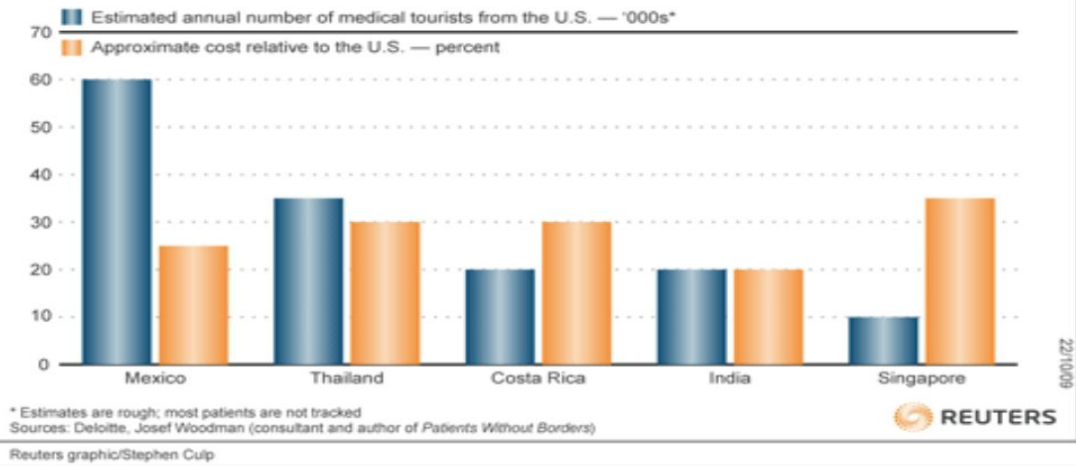


Note: Insights drawn from company web sites: www.bumrungrad.com/; www.apollohospitals.com/; <http://www.nccs.com.sg/>; www.hospitalcima.com/; www.ahdubai.com/; www.stluke.com.ph/; <http://www.pitanguy.com/> and the book "Patient Beyond Border" by Josef Woodman.

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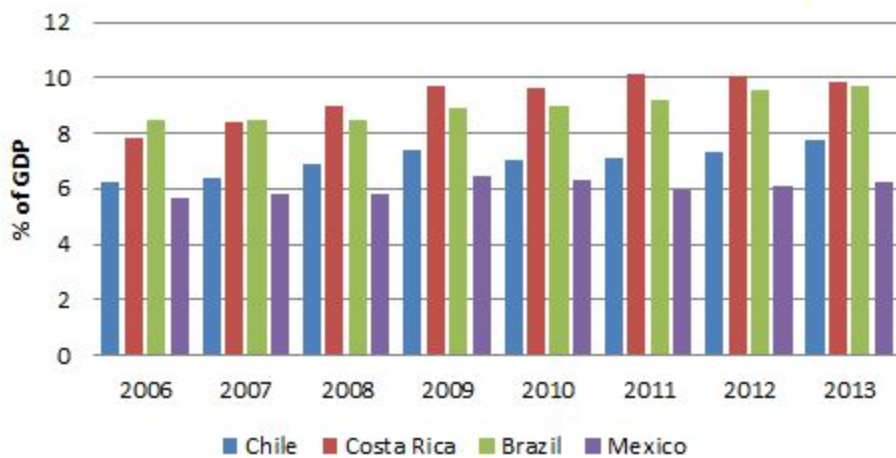
Medical tourism by country

Five of the countries visited most often for medical treatment



Reuters

Health expenditure, total (% of GDP)



Source: World Development Indicator