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THE CARIBBEAN BUSINESS ENVIRONMENT: PROSPECTS FOR GLOBAL VALUE CHAINS IN MEDICAL TOURISM SERVICES IN THE CARIBBEAN

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ABSTRACT

Caribbean states are open traders due to small size, geography, and location. They rely on foreign investment, intermediate services, and other inputs for certain service industries such as telecommunications and related information and communication technologies, financial services, and tourism. As the Caribbean region attempts to shift from its post-colonial trading relationships, and to mitigate the vulnerability of the mainstay tourism and financial industries, strategic positioning in global value chains (GVCs) presents an option for achieving economic diversification and growth. Caribbean states are at varying stages in the process of domestic policy and regulatory development aimed at stimulating investment and commerce. Given the increasing geographic fragmentation of business operations leading up to the delivery of goods and services to consumers, the region should be deliberate in creating a policy and regulatory framework that facilitates multiple global value chains. This article examines the Caribbean business and economic environment with particular focus on the prospects for global value chains in services. With reference to the main services sectors engaged in global value chains in the Caribbean, the article will assess the importance of global value chains in enhancing Caribbean competitiveness, economic development and trade.

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1. Introduction

The services sector increasingly dominates the Caribbean economy in terms of gross domestic production, value-added, employment, and exports. The trend is attributable not only to a decline in productivity in the goods sector and loss of preferential market access to major trading partners, but also to the nature of the services sector itself, that is, the relatively low barriers to entry. While the services sector has absorbed displaced participants in the declining goods sector, and has cushioned the effects on the Caribbean of the global economic crisis since 2008, the sector also holds significant potential for effectively integrating the region's economies into lucrative services and non-services value chains and stimulating economic growth.

Over the last decade, it has been recognized that the region is now at a critical juncture in Caribbean economic history, and with the imperative of making some critical policy decisions. As the region has been obliged to diversify away from unilateral trade preferences, development policies of Caribbean states have increasingly reflected on potentially winning economic services sectors and upstream agricultural and manufacturing activities. In the case of services, these include medical tourism and services related to pharmaceuticals, which are the main focus of this article. The Inter-American Development Bank (IDB) concludes that policy makers need to examine clear policy options to make decisions that will foster economic growth. This article attempts to employ the global value chain (GVC) framework to assess the prospects for the CARIFORUM states in sectors already identified as possible growth areas for the region.

The level of international economic integration has accelerated because open economic policies, trade liberalization, and technologi-

cal advances have in turn facilitated subcontracting of parts of the production process to entities overseas — offshoring and outsourcing. The value added by different processes or activities at each stage of the production process is referred to as the value chain, and the development of GVCs is reflective of the increased integration of developing countries in the global economy (OECD, 2007). The concept of the services value chain takes the view that global service firms, like manufacturers, adopt a supply chain view of their business (Pacific Consulting Group, 2011). An understanding of how global firms operate and make decisions can guide developing countries in the formulation of policies and programs that focus on developing value added services (Gereffi, 2011). The goal is economic upgrading — where firms, countries, or regions move to higher value activities in global value chains in order to increase the benefits from participating in global production. Moving up the value chain equates to increased competitiveness, job creation, and increased standard of living — overall economic development for service-oriented economies. The GVC framework presents a unique context to view trade in services and therefore develops a different approach to determine potential market access areas and facilitates a country's trade services negotiating strategy. Therefore, value chain upgrading should be an area of focused attention for the Caribbean. Better positioning in the GVC requires strategic planning, identifying potential sectors, and training of human resource.

This article considers independent Caribbean Community (CARICOM) states as well as the Dominican Republic, together they constitute the Caribbean Forum of the Grouping of African Caribbean and Pacific (ACP) States (CARIFORUM) in the CARIFORUM-EU Economic Partnership Agreement, signed in October 2008 — Guyana and Haiti signed later. The CARIFORUM countries are Antigua and Barbuda; Bahamas, Barbados, Belize, Dominica, Dominican Republic, Grenada, Guyana, Haiti, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago. The article outlines the core services related to the medical tourism and pharmaceutical industries, and identifies some of the areas where local and foreign firms are providing these services in the CARIFORUM states. The article also reviews the CARIFORUM medical tourism industry based on the value chain for this sector developed in a case study of Health Tourism

in Malaysia (Sallel et al, 2011). The article suggests actions that can be taken to improve the CARIFORUM performance at each stage of the value chain, including in relation to source markets and specific medical tourism services. References are made to the experiences of other developing countries that are successfully participating in medical tourism value chains.

The findings indicate that international tourism remains a viable prospect for the region, but more effort is required to sustain visitor levels and/or to extract increased income as well as to diversify source markets to reduce vulnerability. The CARIFORUM countries actively export health tourism services, including through international chain hotels. They are linked to overseas medical facilities for certain services required to provide a complete medical tourism product and in this way they are linked to an international medical tourism value chain. Medical tourism relies on similar services as other sectors, and its development would likely have spillover effects into other tourism niches such as ecotourism and heritage tourism, as well as into pharmaceutical research and development. The CARIFORUM would benefit from the incorporation of firm-level value chain analyses in formulating policies and strategies for the development of a competitive and innovative international medical tourism sector, which has been identified as a priority growth sector in most CARIFORUM states.

2. Methodology and Organization

The health tourism value chain is discussed in terms of its main drivers of demand, the core services comprising the cluster of health tourism sectors, and the services consumed before and after the provision of medical tourism services. A key feature of medical tourism is the simultaneous delivery and consumption of services. Different segments of the value chain are identified. Core medical tourism services are directly related with treatment, which is a specific segment on the value chain, and these are listed and described. A systematic differentiation by value is not attempted because of the absence of firm level data. However, specific CARIFORUM countries providing certain health tourism services are listed in relation to the services they provide in order to reflect the relative competences and the range of services offered by the region. The adequacy of the CARIFORUM legal and policy frame-

work is examined, particularly in relation to the services sector, development, investment, and trade policies.

This article incorporates the use of descriptive statistics and the GVC analysis framework. Poor data collection for service exports and the difficulty in gathering statistical data from international companies presented challenges in accurately capturing the value of the selected services activities provided by the CARIFORUM states. A significant constraint experienced was the unavailability of disaggregated data on tourism services supply, which limited the ability to estimate the size of the sector in the CARIFORUM.

The article is organized into six sections. The first and second sections provide the introduction and methodology, respectively. Section three is an analysis of the Caribbean economic and business environment, which situates the Caribbean in the global economy. Section four outlines an approach to defining the medical tourism sector and highlights the main issues in measuring value along the value chain. The section also focuses on the global and CARIFORUM medical tourism value chain, with specific reference to CARIFORUM states and key global industry participants, and reviews the region's prospects for upgrading in global medical tourism value chains. Prospects for upgrading in the global medical tourism value chains are assessed in terms of current involvement in the sector, the quality of medical facilities and human resources, the business environment, costs of acquiring services in CARIFORUM, and potential linkages to another high growth sector, the pharmaceutical industry. Section five reviews the Caribbean industrial, development and trade policy framework, and to a lesser extent the legal framework for the services sector. The section includes a detailed examination of the CARIFORUM-European Union Economic Partnership Agreement (EPA) and the implications of the Agreement, which combines trade and development cooperation commitments, for the growth of the CARIFORUM Medical Tourism sector. Section six contains the main conclusions relating to the prospects for global value chains in services in medical tourism in the Caribbean.

3. Caribbean Economic and Business Environment: The Caribbean Region in the Global Economy

3. 1. Economic Performance

As reflected in Table 1 below, CARIFORUM states are open traders with trade being equivalent to approximately 57 percent of gross domestic product (GDP) in the case of the Dominican Republic (World Bank, 2012) and 70 percent or above in all other states in 2009 (CARICOM, 2013). The GDP of CARIFORUM states was approximately $98.86 billion (2009 prices) in 2011, with the Dominican Republic contributing approximately $58.95 billion. The total GDP of CARICOM states is almost equivalent to the size of the Costa Rican economy ($45.12b), with the GDP of the largest economies being Trinidad and Tobago ($22.48b), Jamaica ($14.8b), The Bahamas ($7.7 b), and Barbados ($3.69b). On average, CARIFORUM states grew in real GDP terms for most of the 2001-2010 period, though the contagion effects of the global financial and economic crisis negatively affected growth rates in 2009, particularly in tourism dependent states. There was a further decline of 1.3 percent in 2010, which was felt especially in the OECS subregion with a contraction of 3.4 percent. Notably, the performance of the non-services CARIFORUM economies fluctuated based on changes in commodity prices. Suriname's deceleration in 2009 because of reduced alumina production and lower prices for alumina and oil was offset by increases in gold prices; the latter also benefited Guyana in 2009, and both countries gained from high commodity prices in 2010. The Dominican Republic grew 109 percent between 2001 and 2010; Trinidad and Tobago, which had been a growth engine for most of the decade with an average annual growth rate of 5.7 percent, slowed in 2010 to a rate of 0.1 percent (CARICOM, 2013). The GDP growth rates remain a cause for concern as Dominica, Grenada, Jamaica, and St. Kitts and Nevis contracted in 2012. Antigua and Barbuda, The Bahamas, St. Lucia, and Suriname experienced less than 3 percent growth, while the Dominican Republic and St. Vincent and the Grenadines stood out with growth rates of 3.8 percent and 4.5 percent, respectively. This compares to growth rates of 5.1 percent in Malaysia, 5.6 percent in Costa Rica, 6.4 percent in Thailand, and 1.3 percent in Singapore (World Bank, 2012).

Table 1: Structure of CARIFORUM Economies, 2010

Countries	Agriculture (Percent of GDP)	Industry (Percent of GDP)	Manufacturing (Percent of GDP)	Services (Percent of GDP)
Antigua and Barbuda	2.0	19.9	1.9	78.1
The Bahamas	2.2	15.2	3.5	82.6
Barbados*	3.0	23.2	73.8	73.8
Belize*	12.1	22.7	14.3	65.2
Dominica	13.3	14.9	3.5	71.9
Dominican Republic**	6.09	32.84	25.12	13.6
Grenada	5.3	13.9	4.5	80.7
Guyana*	21.0	33.1	4.1	45.9
Haiti*	…	…	…	…
Jamaica	6.3	22.4	9.2	71.3
St. Kitts and Nevis	1.7	16.4	5.5	81.8
St. Lucia	3.2	16.6	3.9	80.2
St. Vincent and the Grenadines	6.9	19.2	5.2	73.9
Suriname	10.9	37.8	22.7	1.3
Trinidad &Tobago	0.6	52.4	5.3	47.0
CARIFORUM				
CARICOM				
OECS				

Table 1 (Continued): Structure of CARIFORUM Economies, 2010

Countries	Exports (Percent of GDP)	Imports (Percent of GDP)	GDP US$ Millions (Current Market Prices 2009)	GDP Growth (Annual Percent) 2012	Income Classification*
Antigua and Barbuda	46.3	56.5	1,097	2.3	Upper-middle income
The Bahamas	41.5	50.1	7,367	1.8	High-income
Barbados*	47.3	52.4	3,538	…	High-income
Belize*	61.9	69.8	1,337	…	Low-middle income
Dominica	31.7	54.4	375	-1.5	Upper-middle income
Dominican Republic**	27.47	35.73	58,951	3.8	Upper-middle income
Grenada	20.7	49.2	614	-0.8	Upper-middle income
Guyana*	84.6	119.2	2,025	4.8	Low-middle income
Haiti*	12.3	62.3	6,478	2.8	Low-income

Source: World DataBank: http:/data.worldbank.org (For CARICOM, adapted from *Aid for Trade Strategy* (2013))
*All Belize figures are from 2008. Data on Agriculture, Industry, Manufacture and Services for Barbados are from 2009; the same data was unavailable for Haiti. Exports/Imports data for both Guyana and Suriname are from 2005 and from 2008 for Trinidad & Tobago.
Source: CARICOM Secretariat Statistics; CARICOM's mid-Year population estimates; *United Nation Human Development Report 2010* and World Bank
*The World Bank uses gross national income (GNI) per capita as the main criterion for classifying economies.

Table 1 (Continued): Structure of CARIFORUM Economies, 2010

Countries	Exports (Percent of GDP)	Imports (Percent of GDP)	GDP US$ Millions (Current Market Prices 2009)	GDP Growth (Annual Percent) 2012	Income Classification*
Jamaica	26.3	44.5	12,414	-1.1	Upper-middle income
St. Kitts and Nevis	26.2	43.2	526	-0.3	Upper-middle income
St. Lucia	47.2	60.3	954	1.5	Upper-middle income
St. Vincent and the Grenadines	26.5	57.5	585	4.5	Upper-middle income
Suriname	30.4	45.2	2,178	1.2	Upper-middle income
Trinidad &Tobago	63.7	36.7	21,124	15,776	High-income
CARIFORUM					
CARICOM			60,680	8,044	
OECS			4,206	7,505	

Source: World DataBank: http:/data.worldbank.org (For CARICOM, adapted from Aid for Trade Strategy (2013))
*All Belize figures are from 2008. Data on Agriculture, Industry, Manufacture and Services for Barbados are from 2009; the same data was unavailable for Haiti. Exports/Imports data for both Guyana and Suriname are from 2005 and from 2008 for Trinidad & Tobago.
Source: CARICOM Secretariat Statistics; CARICOM's mid-Year population estimates; *United Nation Human Development Report 2010* and World Bank
*The World Bank uses gross national income (GNI) per capita as the main criterion for classifying economies.

Ten of the fifteen CARIFORUM states are upper middle-income countries. The Bahamas, Barbados, and Trinidad and Tobago are classified as high-income, while Belize is a lower middle-income country. Haiti is classified as a low-income country and a United Nations least developed country (World Bank, 2012). The classification as lower middle income, however, betrays the persistently low growth rates, decline in productivity and troubling debt to GDP ratio of these states and poses some concerns relative to access for concessionary finance to facilitate economic transformation. The resulting constraints lead to prohibitively high domestic and border taxes and administrative charges. The World Bank Growth Diagnostics Study revealed a decline in total factor productivity in many Caribbean countries in the 1990s and pointed to trade barriers and distortive taxation as the main inhibitors to economic growth and competitiveness. In a more recent IDB analysis of six CARIFORUM countries[1] — The Bahamas, Barbados, Guyana, Jamaica, Suriname, and Trinidad and Tobago — the business climate and infrastructure quality were found to be the greatest barriers to economic growth, with low factor productivity and especially labor productivity highlighted as major contributors. The high tax burden for some firms still undercuts investment and economic growth in Barbados, The Bahamas, and Jamaica, which are categorized in the IDB study as tourism dependent (IDB, 2013). Guyana, Suriname, and Trinidad and Tobago are classified as commodity dependent countries, with the cost of electricity and the effect of crime being negatively affecting the business environment. In Suriname and Trinidad and Tobago, the notable impediments are procedures and time to register a property. A more detailed analysis follows in the examination of CARIFORUM's ranking in the *2013 World Bank Doing Business Report.*

The International Monetary Fund's (IMF) *World Economic Outlook* growth projections for 2013 revealed lower forecasts for highly indebted countries than for medium indebtedness or low debt countries: Jamaica and Barbados 2013 real growth rates were projected at 0.6 percent and 0.5 percent, respectively. The Bahamas and Trinidad and Tobago, which are classified as medium indebtedness, were expected to grow at rates of 2.7 percent and 2 percent, respectively, and the low debt countries of Suriname and Guyana were expected to grow at 4.5 percent and 5.5 percent, respectively. The forecast might have

suggested a role for debt forgiveness on the part of the international community, as was granted to Guyana, because the immediate prospect for growing out of indebtedness was dubious.

3. 2. International Trade in Services

The CARIFORUM group of 15 states can be classified as mainly service economies, with services accounting for more than 70 percent of GDP in nine states in 2010. The contribution of services in the other states range from a 13.6 percent of GDP in the Dominican Republic to 82.6 percent in The Bahamas. However, manufacturing remains a significant contributor to GDP in Belize (14.3 percent), The Dominican Republic (25.12 percent), Jamaica (9.2 percent), and Suriname (22.7 percent), as does "Other Industry," which ranged from 13.9 percent of GDP in Grenada to 32.84 percent in the Dominican Republic. Agriculture accounts for 12.1 percent of GDP in Belize, 13.3 percent in Dominica, 10.9 percent in Suriname, and 21 percent in Guyana (CARICOM, 2013). Agriculture plays a significantly lesser role in the economy of the Dominican Republic at 6.1 percent of GDP (World Bank, 2012). The figures reflect the specialization of OECS states, The Bahamas and Barbados in services, and more economic diversification in the other CARIFORUM states. However, high employment in services is a feature of the region regardless of the relative contribution of services and non-services sectors. In 2011, employment in services was 83 percent in The Bahamas, 76.4 percent in Barbados, 66.3 percent in Jamaica, and 68.9 percent in Guyana. This is comparable to 66 percent in Malaysia (World Bank, 2012).

Global exports of "other commercial services" more than doubled to $2.24 trillion during the period 1999-2009. The top seven traders in "other commercial services" are the European Union, the United States, India, China, Japan, Singapore, and Switzerland. However, growth in exports of commercial services has occurred in several regions, with North America growing at 9 percent in 2011 over the previous year, South and Central America at a rate of 13 percent for the same period, and Europe and Asia's exports growing at 11 percent. The CARIFORUM has displayed comparable rates of growth over the period, with OECS services exports growing at an average of 13.1 percent, Trinidad and Tobago at 35 percent, Jamaica at 38.7 percent, and the

Dominican Republic at 75 percent. However, the mainstay tourism (travel and transportation) services exports have experienced notable decline during the 2010-2013 period, which will be examined later. At the same time, the European Union and East Asian economies such as Thailand, Singapore, and Hong Kong are growing at double-digit rates in travel services. This trend signals the need for services diversification and enhanced competitiveness by CARIFORUM economies. Within the category of ''other commercial services,'' the most trade subsectors were ''other business services'' and ''royalties and license fees''. North America and Europe continue to dominate both categories. "Other business services", which is a highly aggregated category, support a wide range of industries. Similarly, data on receipts of royalties and license fees are an indication of research and development and innovation transactions and receipts from intangible assets. These are significant deficiencies in the data. However, emerging markets are finding sector niches to propel their services export: for example, Costa Rica expanded exports of computer services by 35 percent in 2011 to $1.53 billion (World Trade Organization, 2012).

Tourism receipts account for five percent of world trade exports (WTO, UNWTO, OECD, 2013). Tourism remains a primary income earner in the CARIFORUM states. Figures from the Caribbean Tourism Organization reflect dynamism among some CARIFORUM states in tourist arrivals, which relate to visitors who stay at least 24 hours in the country visited and do not include cruise passengers. Further research is however required to determine the type of tourists visiting CARIFORUM and the contribution of medical/health and wellness to the overall picture. The main source markets are the United States, Canada and Europe with a share of 45 percent, 14.1 percent, and 21.5 percent of the total 2010-2012 arrivals (approximately 29.2 million), respectively. These countries are also among the top five source countries for medical tourists. The U.**S.** is a top designation for excellent care, and other source countries are Germany and the Middle East. Arrivals from other countries are aggregated, and they account for 19.4 percent of arrivals. Over the period, there was an increase in the number of arrivals from the U. S. of almost 3 percent and 6.7 percent from Canada. European arrivals fell by 2.7 percent, while arrivals from "Other" source countries increased by 17.45 percent. A further breakdown of the tourism trends

by country is found in the discussion of prospects for the CARIFORUM medical tourism industry.

3. 3. Investment Flows

The global economy is slowly emerging from an economic crisis and developing countries are showing more dynamism. In 2010, foreign direct investment (FDI) inflows rose 3 percent. The growth was uneven with FDI inflows to high-income economies falling by 7 percent, which was attributed to a decline in the Euro Zone, while the U.S. remained the world's largest FDI recipient. Notably, low and middle-income economies saw an increase in FDI inflows of 27 percent to $514 billion, and their share of global FDI inflows increased to approximately 36 percent, up from 29 percent in 2009. The rebound is attributed to a better investment environment, corporate earnings revival, and increased developing country-to-developing country investment in extractive industries and infrastructural development (WDI, 2012). In spite of the global decline of FDI flows by 18 percent to $1.35 trillion in 2012, attributed to investors' uncertainty, modest increases were expected in the next two years. The UNCTAD estimates that 2013 FDI levels will be similar to the 2012 level, with an upper range of $1.45 trillion. This would be comparable to the pre-crisis average of 2005–2007 (UNCTAD, 2013).

The BRICS — Brazil, Russia, India, China, and South Africa — are playing an especially significant role in world investment patterns. Between 2003 and 2008, FDI inflows to the BRICS grew from $77 billion to $281 billion, with China and the Russian Federation accounting for the lion's share of growth, and this share peaked at 20 percent of global FDI inflows in 2012. Since 2010, developing and transition economies have increasingly been the destination for more than half of global FDI inflows, and in 2012 FDI flows to developing economies exceeded those to developed countries by US$130 billion. The BRICS are also increasingly outward investors, with their FDI outflows rising from $7 billion in 2000 to $145 billion in 2012, accounting for 10 percent of the world total, compared to 1 percent in 2000. The trend is associated with the expansion of BRICS firms through mergers and acquisitions and significant flows directed to international financial centers. Importantly for the CARIFORUM, the BRICS are also engaged in inter-regional investment,

as seen in China's investments in neighboring economies representing 70 percent of outward investment stock and Brazil's investments representing 40 percent in 2011. The BRICS' investment in developing countries is also significant. In 2011, Latin America and the Caribbean accounted for 15.5 percent of outward FDI stock from the BRICS compared to 29 percent for Asia and 4 percent for Africa (UNCTAD, 2013). This outward investment is often directed towards regional value chains or integrated production networks. Therefore, Brazil, which is the geographically closest BRICS economy, and a major medical tourism destination and pharmaceutical player, is an important prospective partner.

Prior to 2009, the CARICOM region experienced a progressive increase in (FDI), which peaked at US$6.75 billion in 2008. In response to the global economic and financial crisis, FDI inflows to most CARICOM member states decreased in 2009 by 50.4 percent and in 2010 by 32.4 percent. For the OECS Sub-Region, the decline was particularly drastic over the two years, with a contraction of 25.6 percent and 16.2 percent, respectively, reflecting a plummet in the construction sector (CARICOM, 2013). More recently, there has been a rebound in some states, with FDI net inflows as a percentage of GDP at 15.25 percent in St. Kitts & Nevis and 15.9 percent in St. Vincent and the Grenadines in 2011. The inflows of FDI to the rest of the OECS ranged from 5.1 percent in Antigua and Barbuda to 7.1 percent in Dominica (World Bank, 2012).

A greater presence of FDI relative to the size of a country's economy may be indicative of a higher level of participation in GVCs and that country's ability to generate relatively more domestic value added from trade (WIR, 2013). Foreign direct investment as a percentage of GDP has fluctuated in The Bahamas and ranging from 12 percent in 2010 to 7.3 percent in 2012, which is apparently linked to the completion of major construction projects, and in Guyana, FDI levels have been maintained between 8 percent and 10 percent from 2008-2012 (IDB, 2013). Barbados and Belize also maintained net inflow rates of 9 percent and 6.6 percent, respectively, in 2012. However, other states had rates of below 5 percent, ranging from 4.1 percent in the Dominican Republic to a low of 1.2 percent in Jamaica, suggesting the need for attention to investment attraction mechanisms in these larger states. There is a correlation between FDI inflows and GDP growth: Malaysia's net inflow of

FDI was 4.2 percent of GDP in 2011 while Costa Rica's was 5.26 percent, and both countries experienced GDP growth rates of 5.1 percent and 5.6 percent, respectively, in 2012. The Dominican Republic experienced FDI inflow of 4.1 percent of GDP and its 2012 GDP growth rate was 3.9 percent in 2012. The CARIFORUM states are net importers of FDI, which is an important financing option for development objectives, and these states should therefore focus on diversifying FDI attraction in order to improve the dynamism in investment flows.

3. 4. Doing Business Indicators

A 2004 World Bank survey reflected the priority placed by foreign investors in the Caribbean on infrastructure, labor, and the policy and legal environment, and that the physical infrastructure, policy and legal environment, taxation, and customs did not meet the expectations of investors. The factors highlighted by investors included political regime stability, exchange rate stability, laws and regulations, attitude towards FDI, labor productivity, cost and availability of skilled labor, tax rates, telecommunications, power supply, and shipping and ports (World Bank, 2005).

The more recent 2013 *Doing Business Indicators* (World Bank, 2012) reflects the ease of doing business in an economy by analyzing a range of transactions that a commercial entity would be reasonably expected to undertake. The index spans 185 economies and ranks the economies in 10 main areas of business regulations and procedures. These include enforcing contracts, starting a business, registering property, enforcing contracts, protecting investors, and accessing utilities such as electricity. Though the indicators of the business environment are not exhaustive, the rankings signal key regulatory measures that may be affecting a country's entrepreneurial environment and ability to attract foreign direct investment.

The 2013 report revealed increased convergence of business regulatory practices, mostly in the area of reducing the complexity and cost of regulatory processes as opposed to increasing the strength of legal institutions. The ease of doing business ranking is the average of the economy's percentile rankings on the ten areas of business regulation. Though poor performers from past years have largely been narrowing the gap with better performers, CARIFORUM's relative position

Table 2: FDI Flows and Ease of Doing Business (2007-2012) in CARIFORUM States

Economy	GDP Growth (Annual %) 2012	FDI Net Inflows (% of GDP) 2011	FDI Net Outflows (% of GDP) 2011	Ease of Doing Business Rank 2007	Ease of Doing Business Rank 2012	Enforcing Contracts 2007	Enforcing Contracts 2012
Antigua and Barbuda	2.3	5.13		41	63	74	72
Bahamas	1.8	7.56		NI	77	NI	123
Barbados		9.05		NI	88	NI	105
Belize		6.59	0.04	59	105	170	169
Dominica	-1.5	7.19		77	68	164	170
Dominican Republic	3.9	4.12	0.14	99	116	82	84
Grenada	-0.8	5.31		70	100	163	165
Guyana	4.8	6.42		104	114	73	75
Haiti	2.8	2.46		148	174	95	97
Jamaica	-0.3	1.20	0.20	63	90	103	129
St. Kitts & Nevis	1.1	15.25		64	96	117	119
St. Lucia	-3.0	6.69		34	53	161	168
St. Vincent & the Grenadines	1.5	15.90		54	75	108	99
Suriname	4.5	3.38	1.68	142	164	174	180
Trinidad & Tobago	1.2	2.44		67	69	168	179

*NI indicates economies that were not ranked in 2007
Sources: World Data Bank; Human Development Indicators; UN Data

in the indices has declined. Since 2007, every CARIFORUM country member except for Dominica has dropped in the Ease of Doing Business ranking — the Bahamas and Barbados were not yet included in the reports in 2007. This is in part due to regulatory improvements in other economies. Better performance in the doing business indicators has been associated with greater inflows of foreign direct investment. Many investors look to the doing business ranking in assessing the quality of a country's investment environment. Enforcing contracts is an important indicator for economies planning to partake in global value chains through outsourcing. Companies that outsource their services to larger firms rely on binding contracts. With the exception of Antigua and Barbuda, Belize, and St. Vincent and the Grenadines, CARIFORUM countries have slightly declined in this indicator. The message for the CARIFORUM is that competition in improving these indicators has greatly increased and that specific remedial interventions, like regulatory modernization and procedural efficiencies, may improve investors' perceptions.

3. 5. Services Trade Restrictiveness

The Dominican Republic is the only CARIFORUM country covered in the World Bank Services Trade Restrictiveness Database, which reviews restrictions on service supply through cross-border trade (mode 1), investment through a commercial presence (mode 3), and temporary movement of persons (mode 4). The database does not cover consumption abroad (mode 2). The database covers services generally classified as infrastructural services because they enable other services and industry, namely financial services (banking and insurance), telecommunications, distribution (retail), transportation, and professional services. The policy measures examined are related to sector openness, form of entry, licensing requirements, operations, regulatory environment, conditions of provision of service, restrictions on service providers, type of entry, and entry conditions. The Dominican Republic has an overall score of 12.5, with zero being the least restrictive and 100 being totally closed, and this compares to 21 for Latin America and the Caribbean and 19.1 for the OECD. This is an impressive performance for the Dominican Republic and suggests that in terms of services liber-

alization, the country is potentially well positioned for linking to services value chains dependent on the services covered in the index.

The World Bank has illustrated that there is a positive relationship between services reform and increased foreign direct investment (mergers and acquisitions), trade facilitation, and downstream manufacturing industries (World Bank, 2012). It is also estimated that services liberalization yields an average of 0.9 percent gain in real GDP for developing countries, compared to 0.2 percent for developed countries (Center for International Economics, 2010). Services reform could be a significant tool for the CARIFORUM states as they seek to upgrade their position in global value chains, but further work is required to determine the adequacy of existing services regulations and the level of restrictiveness.

4. Value Chain Analysis: The Medical Tourism Sectors and Prospects for CARIFORUM States

The global value chain analytical framework can assist policy makers and businesses to identify opportunities for market entry into the offshore services industry for developing countries. Outsourcing refers to the "contracting of a special function or service from a legally separate unit (outside the boundary of the company), rather than using the company's own internal resources and capabilities (in house transactions). Offshoring refers to the "provisions of a function or service beyond national, rather than firm, boundaries". While there is no agreement on a methodology for collecting data on the offshore services industry, there is consensus that the industry is large and expanding. India's National Association of Software and Services Companies (NASSCOM), the Boston Consulting Group (BCG) and the Organization for Economic Co-operation and Development (OECD) estimates of the sector ranged from US$101 billion to $157 billion in 2008 (World Bank, 2010).

A value chain can be broadly defined as a "sequence of related and dependent activities that are needed to bring a product or service from conception, through the different phases of production, to final delivery to consumers and after sales services, and finally to disposal or recycling". Value chains vary, and each link in a value chain can itself consist of related and dependent activities or links to different chains.

Intermediary producers in one value chain may also feed into several other value chains. A simple value chain typically includes design and product development, manufacturing, marketing and sales, disposal, and recycling. Value chain analysis can assist in determining a country's "productive and technological capabilities" and competitiveness, and such an exercise can inform and direct policy interventions toward innovation and development. A related concept is that of Global Production Network (GPN) in which independent enterprises are interrelated with the effect that their actions can affect others in the network in terms of, *inter alia*, price, efficiency, as well as affecting competitors. As firms become interdependent in a GPN, individual lead firms can influence (govern) the prospects for other firms to innovate. These lead firms can range from transnational corporations to retailers, branded marketers, manufacturers, or other entities that organize production at different locations. In addition, the relative influence of firms in the network can change as some network participants improve their competence (UNIDO, 2004).

The first task for developing country firms is to access lead firms in the network, and this can be done through leveraging channels including foreign direct investment, joint ventures, licensing, subcontracting arrangements, and strategic partnerships (UNIDO, 2004). If GVCs do determine the distribution of actual economic gains from trade between individual economies and are shaped to a significant extent by the investment decisions of transnational corporations (TNCs) (WIR, 2013), then there is a role for both public and private actors in the CARIFORUM to seek out and secure a relationship with lead firms in medical tourism, pharmaceutical value chains, and global production networks. Thereafter, four potential types of upgrading could be pursued: change in process, change in products, functional (intra-chain) upgrading, and inter-sectoral upgrading (UNIDO, 2004).

There has not been a comprehensive assessment of CARIFORUM firms' participation in global value chains. However, there is evidence of significant activities in several states in business process outsourcing, much of which are carried out in Export Processing Zones ranging from medical transcription, ICT, customer service, and financial services. For example, Infotel, a U.S. firm outsources the functions of its Operation Division to Belize in customer service, transaction pro-

cessing, marketing, debt recovery, training, and quality assurance activities. Trust services are also outsourced from a Swiss entity to Belize-based Bay Trust Corporate Services, formed as an International Business Company (InvestBelize, 2013). In Jamaica, the business process outsourcing industry is a strategic sub-sector providing approximately 12,000 jobs. There has been a major push to reposition the industry as the largest employer in the knowledge services sector (JCSI Online, 2012). In Trinidad and Tobago, there are significant links to global value chains in the manufacturing sector (TTMA, 2011) and in the oil and gas sector (Chaitoo, 2013).

As previously mentioned, the CARIFORUM states are involved in medical tourism. The global value chain (GVC) analytical framework, developed by Gereffi and Fernandez-Stark, classifies services as horizontal or vertical. The GVC methodology, though traditionally used to assess goods production, is useful in the analysis of services to identify opportunities for market entry into the offshore services industry for developing countries. The activities classified as 'horizontal' in the framework are the services that can be provided across all industries, and are represented by expertise in certain processes. The vertical activities are the industry specific services, and horizontal activities tend to be process experts. All activities are related to supporting generic business functions such as network management, application integration, payroll, call centers, accounting, and human resources. The higher value added services, such as market intelligence, business analytics, and legal services, are the knowledge processes being outsourced. Lower valued added services require fewer years of formal education. Vertical activities must have industry expertise and services may have limited applicability in other industries. The related value chain will vary, as will the types of associated services that can be relocated.

Medical or health tourism, by its extra-territorial nature, lends itself to outsourcing and offshoring where related service providers can export their services and forge relationships with overseas entities in the value chain. Given the linkages between the tourism, health and other economic sectors (WTO, UNWTO, OECD, 2013), the relationships in the offshore services value chain for medical tourism can range from Information Technology Outsourcing (ITO) to Business Process Outsourcing (BPO) or knowledge process outsourcing (KPO).

The following section addresses the medical tourism sector and services related to the pharmaceutical industry which is considered as a complementary sector. For medical tourism, and to a lesser extent the pharmaceutical industry, the section outlines trends in the global industry, the activities covered in each segment of a simple value chain, and where possible the types of companies involved in the industry. The areas in which CARIFORUM states hold comparative and competitive advantages are also highlighted. It is suggested that CARIFORUM states should examine the prospects for medical tourism in tandem with market segment linkages to the pharmaceutical industry and other tourism niches such as ecotourism and heritage tourism.

4. 1. Defining the Health Tourism Services Value Chain

Medical or health tourism spans two discrete services classifications: Tourism and Travel Related Services, and Health and Related Social Services. While much of the existing GVC analysis has focused on services supporting goods production, like manufacturing and agricultural production, the concept can be applied to the services sector. As an industry, medical tourism can viewed as a service sector that is distinct from the pharmaceutical goods sector and its related support services, such as research and development, services related to manufacturing, or distribution. A medical procedure or advice is a service consumed at the time of service delivery while services related to the pharmaceutical industry ultimately lead to a physical product or good which embodies a series of services. Embodied services generally refer to those that constitute an input into the manufacturing of goods; for example, services for R&D pharmaceuticals or alternative medicines (Fung, WTO, 2013). These input or support services, also referred to as "intangibles," are traditionally underestimated in valuing an industry and in crafting appropriate policies for sector development. This conceptual distinction also limits the applicability of the concept of 'embedded' services to the medical tourism sector, or at least the sequence of services inputs, as embedded services constitute an input into the sale of the good are usually associated with activities occurring after the acquisition of the good or provision of the service (Fung, WTO, 2013). Notably, there is significant overlap in the services going into medical tourism, other tourism services, and those facilitating pharmaceutical

production, as illustrated in the non-exhaustive list of services related to medical tourism and the pharmaceutical industry. Similar to the case study of the Swedish multinational Sandvik Tooling, which identified fifty-two discrete services that feed into its supply chain management, goods delivery and customer delivery combined (WTO, 2013), it is anticipated that a range of services support medical tourism services and services related to the pharmaceutical industry. These services are illustrated in Table 3 below. It is suggested that in value chain positioning, examination of the role of input and support services should underpin a comprehensive approach to service sector efficiency, competitiveness, and regulation at the national and international levels (Adlung, Zhang, 2012).

Trade in medical tourism services mainly takes place via Mode 2 consumption abroad. Medical tourists travel across borders to consume the service abroad. Immigration procedures may act as a barrier to trade. Mode 1, cross border supply, entails the sales aspect of the value chain. Travel and sales agents located abroad package and sell medical tourism products to clients worldwide. There is also potential for Mode 3, commercial presence, through foreign direct investments in hospital or tourist facilities. It is important to take a holistic view of the sector in order to determine the strategy for autonomous liberalization as well as for negotiation of external trade agreements. Trade liberalization in certain services activities would facilitate medical tourism: for example, the liberalization of Mode 2 (medical and tourism services) by the sending country; the liberalization of medical and business services in the host country to encourage investment; and Mode 1, the liberalization of life insurance provision would allow the sourcing of foreign insurance to cover medical tourism services abroad. Trade commitments seem to be more geared toward limiting the insurance providers of the other party's ability to sell insurance for use in the other party's home territory or internationally. However, portability of insurance obtained by tourists visiting the Caribbean would be important to facilitate services provided in the region and could be allowed on a case by case basis outside of a trade agreement, given regulatory concerns about cross border trade in financial services.

Services related to pharmaceuticals feed into medical tourism. They could be classified as core and support services, with those di-

rectly related to research and development, technical testing and analysis, patent registration and brokerage (arranging for the purchase and sale of patents), and to manufacturing being considered as core services. Other post-production, distribution and support services leading up to delivery and after-sales could be considered as support services. Further research is required to verify the extent to which the industry in the Caribbean is providing these services, the nationality of services providers, the mode of services supplied, and whether they are being provided by affiliate or third party entities. Closer examination of the sectors will also determine those in which CARIFORUM states are actively trading or have viable prospects of trading. An important factor in determining the potential feasibility of enhancing the capacity to provide the services identified is the size and skill level of the workforce. The literature on innovation and trade in services has found that the propensity to trade and innovate in services is less a factor of size than it is of skill level or intensity. Therefore, CARIFORUM governmental support should be focused on skill upgrading of individual firms and in technical education and training. Additionally, support should not be unevenly distributed or restricted to large firms since small firms stand as good a chance in upgrading their position in global services value chains (World Bank, 2013).

There may also be some difficulties in disaggregating and classifying the services elements into discrete services activities for the purposes of trade negotiations. The CARIFORUM states have listed market opening on specific sectors (positive list approach) in their schedules of commitments on services liberalization in the WTO, and services and investment in the CARIFORUM-EU EPA, based on the United Nations Central Product Classification (CPC) provisional (1991) listing. There is, however, recognition among WTO Members of the need to use more modern classification systems to revise the W/120 Classification Guideline for Services. For example, ISIC rev 4, which is referenced for some activities in Table 3: List of Services Related to Medical Tourism and the Pharmaceutical Industry. The ISIC rev 4 seems to aggregate related economic activities based on current business practices, that is, the provision of a cluster of services from one service provided, and may therefore be a useful framework for measuring value added along the medical tourism and pharmaceutical value chains.

Given increased international production sharing arrangements another issue in trade negotiations is consistency in the treatment of investors. This arises from commitments made by countries under the WTO General Agreement on Trade in Services for services related to goods production operations when compared to commitments under the General Agreement on Tariffs and Trade for goods being produced (Adlung, Zhang, 2012). This is particularly relevant to physical products that could be created from the medical tourism such as related pharmaceuticals.

Table 3: List of Services Related to Medical Tourism and the Pharmaceutical Industry*

Services Directly Related to Medical Tourism	Hospital activities (ISIC 8610) Medical and Dental Practice Activities (ISIC8620) Other human health activities (ISIC 8690) Higher education (except non-profit, public and publicly funded entities) (ISIC 8530) Other Education n.e.c. (ISIC 8549) Accommodation (ISIC 5510)
	Other Business Services Research and Development of Pharmaceuticals and Biotech Pharmaceuticals (ISIC 7210) (equivalent to Research and Development in Natural Sciences (CPC 851) and Interdisciplinary Research and Development (CPC 853))
	Other professional, scientific and technical activities n.e.c. (which includes patent brokerage activities) (ISIC 7490/CPC 8675
	Technical testing and analysis services ((ISIC 7120/CPC 8676)
	Computer and related services (CPC 84/ ISIC 6201,6202, 6209)
	Management consultancy activities (including, Services related to Management Consulting) *(ISIC 7020)*
	Market Research and public opinion polling *(ISIC 7320)*
	Organization of conventions and trade shows *(ISIC 8230//CPC 87909)*

Table 3 (continued): List of Services Related to Medical Tourism and the Pharmaceutical Industry*

	Financial Services
	Life insurance (including health, disability, international health) (ISIC 6511) and Non-life Insurance (e.g. freight, public & product liability) *(ISIC 6512)* Other activities auxiliary to financial service activities *(ISIC 6619)* Other activities auxiliary to insurance and pension *(ISIC 6629)*
	Other Services Packaging Services *(ISIC 8292/CPC 876)* Distribution - Wholesale of Pharmaceuticals *(ISIC 4649)* Distribution - Retail Sale of Pharmaceutical and Medical Goods *(ISIC 4772*
Services Related to the Pharmaceutical Industry Only	Logistics services** Services incidental to manufacturing*** Services incidental to agriculture ***
Other Related Economic Activities******	Growing of spices, aromatic, drug and pharmaceutical crops (ISIC 0128) Manufacture of pharmaceuticals, medicinal chemical and botanical products (ISIC 2100) Manufacture of laboratory, hygienic or pharmaceutical glassware (part of ISIC 2310)

* The table uses a mix of services classifications derived from the CPC, ISIC, broad sector headings and clusters of services proposed in trade negotiations.

** Logistics services refers to a cluster of services including inter alia services incidental to all modes of transportation, distribution services, courier/express delivery services

*** There is no direct transposition from CPC to ISIC and States would have to identify the specific activities in relation to the pharmaceutical industry

**** Some economic activities may include services elements but would normally fall under liberalization commitments on non-services investments

Attempts have been made to determine the contribution of the tourism sector to national economies through the Tourism Satellite Account (TSA) Initiative. The TSA extends the system of national accounts and is guided by the International Recommendations for Tourism Statistics. The TSA classifies inbound non-resident visitors by the purpose of their visit, and one such classification is health and medical care. The TSA also allows for the collection of demographic information about the visitor, period of stay, type of lodging and tourism expenditure (UNWTO, 2010). Since early 2011, the Caribbean Tourism Organization (CTO) and the Inter-American Development Bank (IDB) have been working towards the implementation of the TSA in five countries (CTO, 2013), with work to date advancing in Barbados, The Bahamas, Jamaica and Trinidad and Tobago. This lack of detailed, harmonized statistical data prevents systematic economic analysis, direction, and benchmarking of the region's performance (Boyce, 2013).

Measuring value along the services value chain is complicated due to the lack of reliable company level data and trade statistics for services. To partially address this problem, the value of different services can be related to employee education level and work experience (Gereffi & Fernandez-Stark, 2010). By indicating the human capital required at different levels of the offshore services value chain, this classification provides decision makers in developing countries with an instrument to determine where they may be best suited to enter the value chain and enter the market. It also provides an initial blueprint for economic upgrading strategies within the industry. Developing countries must evaluate their workforce development strategies and implement policies to build human capital for those segments. The WTO-OECD Trade in Value Added (TIVA) database covers OECD countries, Indonesia, and the BRICs. The TIVA measures the foreign value added content in the output of specific sectors by originating country and as a proportion of exports. It therefore allows the tracking of domestic value added and the extent to which goods and services exports of a particular country are being integrated into the production and trade of its partner countries. The TIVA figures have the effect of checking traditional trade statistics for double counting based on the value, or value added, of goods and services traded rather than counting intermediate goods multiple times in world export figures. For example, in Indonesia

21 percent of exports reflected services in 2009, compared to the 9 percent contribution of services using conventional trade statistics (OECD/WTO, 2013). The Indonesian experience suggests that the value of services is underestimated in conventional data collection, and that neither its real contribution to other industries nor the actual economic gains of Indonesia relative to trading partners has been adequately assessed to usefully inform targeted policy making and planning for GVC upgrading in most states. There is a commitment to maintain the TIVA database and expand its territorial coverage (OECD, 2013). The CARIFORUM countries should seek to improve their data collection through the adoption of the tourism satellite accounts and inclusion in the TIVA database, as this would generate necessary information for policy making in the era of GVCs.

4. 2. Global Analysis – The Health Tourism Industry

There are various definitions of health tourism and medical tourism. A broad definition of health tourism is "organized travel outside one's local environment for the maintenance, enhancement or restoration of an individual's well-being in mind and body." Using this definition, medical tourism would be a segment of health tourism and would be defined as "organized travel outside one's natural health care jurisdiction for the enhancement or restoration of the individual's health through medical intervention" (Carrera and Bridges, 2006)[2]. This article uses health and medical tourism interchangeably and adopts a wide definition of health tourism as proposed in a recent ECLAC survey: "traveling in order to undergo different types of medical treatments that enhance a person's physical or mental well-being, ranging from medical intervention (elective or essential), traditional and alternative treatments, to holistic medicine offered by spas and wellness resorts (ECLAC, 2010). By extension, this article adopts the related classification of medical tourism services into three broad segments: (a) invasive procedures performed by a specialist; (b) diagnostic procedures including several types of tests such as blood screenings and electrocardiograms; and (c) lifestyle procedures including wellness and recuperation treatments. These three types of medical service are captured under the "Treatment" link of the medical tourism value chain discussed below. The Caribbean Export Development Agency identified four

main target segments of the health and wellness industry for the region: medical tourism, wellness and spas, nursing and elderly care, and research and diagnostic services (CEDA, 2008).

The broad definition is the more appropriate one for the CARIFORUM with a rich legacy of traditional knowledge and diverse natural resources, which form the basis for what is popularly termed "alternative" or "non-traditional" medicine. This is consistent with the World Health Organization's definition of health that is holistic and is not necessarily linked to morbidity. In addition, the emergence of "functional medicine" emphasizing a therapeutic approach rather than the acute-care approach (Institute for Functional Medicine, 2013) seems to already be bridging the substantive gap between conventional and alternative medicine. Definitional issues do however translate into diversity in the regulatory approach to the sector and services providers, the activities covered under insurance schemes, and under trade agreements. Notwithstanding the broad definition adopted in this article, there is greater attention to the regulated activities.

Though figures about the size of the medical tourism industry vary, perhaps because of differences in its definition, it is clearly growing and this trend is expected to continue given the demand factors driving the industry. The World Bank estimated that by 2005, the global health services sector amounted to $4 trillion, and that the value of exported (traded) health services grew by at least six percent annually, though the rates could be higher given the growth in information and communications technology and greater openness of health systems. According to the World Travel & Tourism Council (WTTC), medical tourism contributed 9 percent of global GDP (more than US$6 trillion) and accounted for 255 million jobs in 2011. In 2010, the global medical tourism industry was estimated to be valued over US$60 billion (RNCOS, 2010). Patients without Borders is reported to have capped this figure at as much as $40 billion, with about 7 million people traveling abroad annually (Robertson, 2013). One estimate for 2013 puts the value of the industry at $100 billion (Asia Focus, 2013), while Research and Markets (2013) reports that the global medical tourism market was valued at US $10.5 billion in 2012 and is expected to grow at a rate of approximately eighteen percent from 2013 to 2019 to US$32.5 billion in 2019.

"Deloitte expects the number of U.S. medical tourists to rise by 35 percent this year — and annually for the foreseeable future because it offers savings of as much as 70 percent". A 2009 Gallup poll indicated that 40 percent of Americans said they would travel abroad to treat a major medical problem if the quality were the same as that in the U.S. and the price was cheaper (Jacob, 2013). Patients Beyond Borders (2013) estimates that some 900,000 Americans will travel outside the U.S. for medical care this year (2013). They also estimate that approximately eight million cross-border patients worldwide spend an average of USD $3,000-5,000 per visit, including all medically related costs, cross-border and local transport, inpatient stay, and accommodations. Patients Beyond Borders also estimates the worldwide medical tourism market is growing at an annual rate of 15-25 percent, with rates highest in North, Southeast and South Asia.

The factors that drive this movement of people include patients seeking competitive pricing due to high costs of healthcare at home (often in developed countries), patients facing long wait times for procedures, patients who seek procedures that cannot be done at home, or patients seeking procedures that are done at a better standard due to low quality services in their country of residence (ECLAC, 2010). Other factors include the exclusion of certain procedures from health care plans and the increasing number of uninsured persons. For example, in 2011 49.9 million persons were uninsured in the United States (AmericanGlobalMD, 2013).

In the CARIFORUM, though tourist arrival statistics are good, there is no standardized method of data collection for medical tourism, which makes estimating this sub-sector a challenge. The table below summarizes the number of medical tourists who traveled to the top eight most visited countries in 2012. Number one on the list is Thailand, which had an estimated 1.2 million medical tourists in 2012. The top destinations offer high cost savings for the most sought out medical treatments. The top specialty procedures sought by medical tourists include the following: cosmetic surgery; dentistry (general, restorative, cosmetic); cardiovascular (angioplasty, CABG, transplants); orthopedics (joint and spine; sports medicine); cancer (often high-acuity or last resort); reproductive (fertility, women's health); weight loss (LAP-BAND, gastric bypass); scans, tests, health screenings, and second

opinions. MoBay Hope, in Jamaica, already offers several of the services listed above to local residents and visitors. This suggests that MoBay Hope and similar facilities can export many of the services listed in Table 4 below, depending on cost and service quality.

Table 4: Top Eight Most Visited Countries (2012)

Country	Number of Medical Tourists	Notes
Taiwan	90,000	Major procedures such as a full facelift can be more than 50 percent cheaper in Taiwan than in the U.S.
Turkey	110,000	A major procedure such as spinal fusion can be 60 percent cheaper than in the U.S.
Brazil	180,000	More than 4,500 licensed cosmetic surgeons. A nose job can be had for about 60 percent less than the cost of the procedure in the US
India	400,000	High-difficulty operations such as coronary artery bypass graft surgery can be 90 percent less expensive in India than in the U.S.
Singapore	610,000	
United States	800,000	World-class care for the hardest-to-treat cases
Mexico	> 1 million	Popular procedures are dental work and weight-loss surgery
Thailand	1.2 million	Major procedures can be 50-70 percent cheaper there than in the U.S.

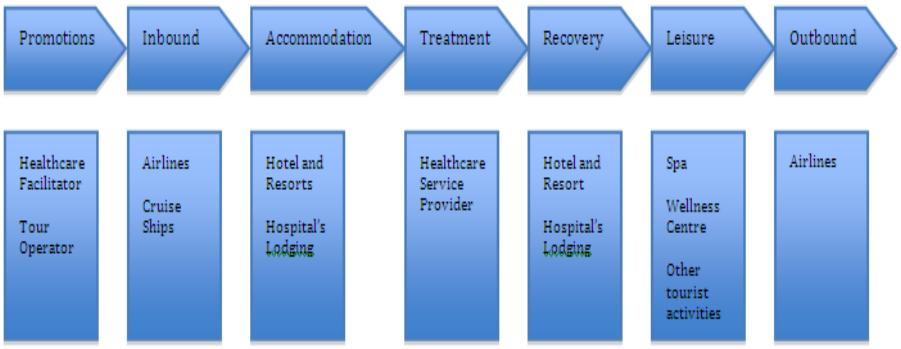
Source: Patients Beyond Borders (2013)

4. 3. Medical Tourism Value Chain Analysis

The basic medical tourism value chain for Malaysia as reflected in Figure 1 below is equally applicable to the CARIFORUM context. It should however be noted that the tourism sector has linkages with most other economic sectors, and that more elaborate value chains are useful for an assessment of a wider economic impact.[3] The value chain consists of promotions, inbound transportation, accommodation in the destination country, the core health service or treatment, services to the patient during recovery, leisure services that may be enjoyed before or after recuperation, and outbound international travel and transportation. The ‘‘Treatment’’ link of the medical tourism value chain can fur-

ther be broken down as related sub-categories of medical tourism which are (a) invasive procedures performed by a specialist; (b) diagnostic – which includes several types of tests such as blood screenings and electrocardiograms; and (c) lifestyle, which includes wellness and recuperation treatments. The simple value chain below presents the links in the medical tourism chain.

Figure 1: Medical Tourism Value Chain



Source: Salleh et al. (2011), Health Tourism in Malaysia

4.3. 1. Promotions

The first link of the value chain is the promotions conducted by tour operators, healthcare facilitators, or governments and tourism associations. Promotions include the marketing of the country's product and medical tourism services to target consumers abroad. Belize, for example, uses tax receipts from hotels and accommodation taxes to fund the statutory body, Belize Tourism Board (BTB). The BTB develops and conducts country brand promotions. Similarly, other CARIFORUM states have a Tourist Board or Ministry of Tourism that coordinates and funds tourism initiatives and promotes the respective national brand, but these are resourced to varying degrees. The Caribbean Tourism Organization and the Caribbean Hotel and Tourism Association also play lead roles in promoting and positioning the CARIFORUM in overseas markets. In Thailand, the top medical tourism destination, the Tourism Authority of Thailand (TAT) is also government funded. It markets Thailand internationally, collects data, and conducts studies on

destination development. These institutions, often in conjunction with other related associations, work to promote the country as a medical tourism destination. Sales are then usually made through health packages sold to patients either directly by the medical institutions or by third parties (medical tourism travel agents).

Factors such as airlift costs, accommodation stay, and cost of the actual procedure are factored into the total medical package and consumer decision-making process. Jensen suggests that there are opportunities for significant benefits in the travel organization and booking segment, and that in spite of the small number of players, the tour operator segment seems contestable especially given advances in information and communication technologies (OECD/United Nations World Tourism Organization (UN WTO)/WTO, 2013)

4. 3. 2. Inbound and Outbound International Travel

Promotions result in inbound foreign tourists or patients through airlines or cruise travel. These may be under contract arrangements, as is the case for the Bayview Hospital in Barbados and cruise line operators (CRNM, 2001). Six of the top eight global destinations for medical tourists are located more than five hours from the U.S., one of the major markets. Most Caribbean countries are four hours or less from the U.S. Despite the proximity advantage, the low flight volumes in the region propel prices upward relative to high volume destinations. Airlift capacity is a continued challenge for the region and local airlines find it difficult to compete. The viability of regional airlines and regional transportation continues to present logistical issues for inter and extra regional trade. The availability and quality of transportation to and within the destination country is a particularly important element of a successful tourism strategy (WTO, UNWTO, OECD, 2013). The end of the value chain is the outbound movement of foreign patients via airlines or cruise travel. Immigration procedures, such as visa requirements, can act as deterrence to destination choice because of cost, time, and the effort to complete application procedures. In that respect, it is also an important characteristic of the visitor experience.

Air transportation into, and more within, the region is a major challenge to realizing the potential of the sector. Major international carriers from North America, Europe, and to a lesser extent South

America, service the Caribbean. Air links into the region are generally good, though costly and intra-regional travel is difficult. With respect to regional carriers, the low-fare carrier Red Jet, operating out of Barbados, failed in its operations due to struggles with various governments. Air Jamaica was acquired by Caribbean Airlines two years ago, effectively consolidating the regional airline sector into one dominant domestic player. Since then major routes to the United States and the United Kingdom have been removed from the air travel offer, reducing the ease of access to the Northern Caribbean. (Barrett, 2013). The Trinidad & Tobago government stepped in by acting as a guarantor for its loan. Liat airline, another Caribbean airline servicing the Eastern and Southern Caribbean, has also been subject to political and financial difficulties that translate into high travel costs. Accessibility and the cost of inbound and outbound transportation are crucial as six of the top eight destinations for medical tourist listed in Table 4 are located more than five hours from the U.S., while the CARIFORUM is less than four hours away. The cost of travel from Europe to the Caribbean has also increased since 2009 with the restructuring of the United Kingdom Air Passenger, which effectively imposes additional charges for long distance travel from the UK, including transit flights from other destinations to the Caribbean (CTO, 2011). The relative cost of travel to the region could undermine the comparative advantage of proximity if not remedied.

4. 3. 3. Accommodation

While in the destination country, the next chain link accounts for patient stay at accommodations such as hotels, resorts or even hospital lodging. The CARIFORUM hotel industry has a winter season, the peak season for arrivals from temperate and cold climates, and a summer season during which special packages are offered to local residents to boost occupancy levels. In the first quarter of 2012 Caribbean Tourism Organization (CTO) member countries, which is a wider grouping than the CARIFORUM, have 2,125 hotels and 231,278 rooms. In March 2012, completion of existing and pipeline projects resulted in an increase in occupancy of 3.5 percent. The Asia-Pacific region alone was expanding its occupancy level by 212,154, suggesting preparation for even further expansion of the tourism market. In the CARIFORUM, the occupancy

rate in the first quarter of 2012 was 72.5 percent, indicating a surplus in accommodation even in the peak season. This suggests an urgent need to improve marketing efforts and product diversification to maximize the returns on existing investment in the tourism infrastructure (STR, 2012). It also suggests that CARIFORUM may not need to invest in greenfield projects for lodging services for certain types of recuperative care, as existing accommodation facilities are underutilized and could be retrofitted. Furthermore, given the small size of the region and sustainable tourism concerns, the region should compete based on product differentiation rather than scale.

Hotel standards are important in ensuring quality experience. The Caribbean Hotel and Tourism Association (CHTA), the Caribbean Tourism Organization (CTO) and the CARICOM Regional Organization for Standards and Quality (CROSQ) coordinate regional standards that *inter alia* specify the minimum requirements for any commercial enterprise providing accommodation to tourists operating in the CARICOM region. There are differences in standards and practices for the spa and wellness sector from one territory to another (CEDA/C-SWA, 2013).

With respect to conventional medical facilities, the Joint Commission International (JCI) is a U.S. based quality and safety accrediting organization. "Nearly 500 facilities around the world have now been awarded JCI accreditation and that number is growing by about 20 percent per year." (Patients Beyond Borders, 2013**).** Other notable accreditation schemes are the Australian Council on Healthcare Standards International (ACHSI) and the Canadian Council on Health Services Accreditation (CCHSA) (Nethersole, 2012). In order to ensure appropriate standards for quality assurance for medical treatment and recovery lodging facilities, the next link in the value chain, health regulators and stakeholders would need to be engaged and, wherever possible, efforts should be at a regional level to pool resources and ensure coherence.

4. 3. 4. Treatment, Recovery and Leisure

The next link in the value chain relates to the treatment provided by healthcare service providers and the recovery period, which is the main focus of this article. The services offered by CARIFORUM have been listed in Table 5 below, but some additional considerations are

listed here. The experience and effectiveness of care are critical in building a brand for medical tourism. People want to feel better. Therefore, the care received in the CARIFORUM has to be qualitatively distinct for the patient, as does the experience for their love ones who may be traveling with them.

As early as 2001, the Caribbean began considering the prospects for health tourism and related services in the context of Caribbean development and international trade, and countries like Jamaica had begun earlier. A report by Gonzales for the Caribbean Regional Negotiating Machinery (CRNM) focused on convalescent care and rehabilitation, health and wellness programs, drug and alcohol dependency programs, the use of local health services by tourists, cosmetic surgery, and telemedicine (CRNM, 2001). Today, several private locally or regionally owned facilities are offering medical tourism services across the CARIFORUM and are establishing partnerships with overseas counterparts for specialty diagnostic services and surgical procedures not provided in the region. American World Clinics, a privately held company that develops hospitals and clinics in the international medical travel market, operates in Barbados and is currently assessing the building of new hospitals in the Bahamas (Caribbean News Now, 2013). In Jamaica, the Spanish company Grupo Hospitien International (Hospiten Group) acquired Montego Medical Center (opened in 1997) in 2010 resulting in the renaming of the new subsidiary to MoBay Hope. MoBay Hope provides 24 hour Life Call Ambulance Services, 24 hour Emergency Room, 24 hour Laboratory, 24 hour Radiology Service, Cardiac General Surgery, Orthopaedic Surgery, Obstetrician/ Gynecologist; Pediatrician, Colonoscopy & Endoscopes surgery, Dermatology, Pharmacy, U.S. Immigration Physicals, and Immunization Services. Similar services are offered at Hospiten's second facility in Falmouth, Jamaica, called the Centro de Especialidades Medicas. In the two facilities in the Dominican Republic, namely Hospiten Bavaro in Punta Cana and Hospiten Santo Domingo in Santo Domingo, additional services are provided such as Clinical Psychology, Intensive Care Unit, Pediatric Surgery, Psychiatry, Venerology (Hospiten Group, 2013). The services are accessible to citizens and visitors, and the services provided are generally available through the public health system as well. The Hospitien Network also has other private medical-hospital centers in Spain,

Mexico, Jamaica, and more than 100 outpatient health centers under the registered trademark Clinic Assist (MoBay Hope Online, 2013).

Table 5: CARIFORUM Provision of Medical Tourism Services

CARIFORUM STATE	SERVICES PROVIDED
INVASIVE PROCEDURES PERFORMED BY A SPECIALIST	
The Bahamas	Dialysis
Barbados, Dominican Republic, Jamaica, Trinidad and Tobago	Opthalmology, Cosmetic surgery
Barbados, Jamaica	Fertility services
Belize , Dominican Republic	Dentistry
Dominican Republic	Bariatric Surgery, Clinical Psychology, Intensive Care Unit, Pediatric Surgery, Psychiatry, Venerology
Dominican Republic, Jamaica	Cardiothoracic Surgery, Gastroenterology, General Surgery, Hematology, Internal Medicine Nephrology, Neurosurgery, Obstetrics & Gynecology, Ear, Nose & Throat (Otorrinolaringology), Radiology, Urology, Vascular & Endovascular
Dominican Republic, Jamaica, Trinidad and Tobago	Orthopaedics
Jamaica	Endocrinology, Liposuction, Oncology, Nuclear Medicine
Trinidad and Tobago	Laparoscopic Surgery
DIAGNOSTIC	
Barbados, Jamaica	Heart testing (ECHO, ECG) Mammograms
Dominican Republic, Jamaica	Medical Imaging (MRI), Other Radiology
Antigua and Barbuda	Assessment and treatment for alcohol, drugs and other addictive disorders
LIFESTYLE	
The Bahamas, Belize, Barbados, Dominican Republic, St. Lucia	Spa services, herbal treatments Alternative medicine
Dominica	Spa services, Therapeutic mineral and sulphur baths
Jamaica	Physiotherapy
St. Lucia	Yoga
St. Lucia	Alternative and complementary medicine through medicinal food and herbs

In the treatment and recovery segment, service providers also have opportunities in support industries to healthcare. Related support industries include insurance companies/agents, hospital management, and clinical waste management (Salleh, 2011). These industries should also be developed to ensure a sound and fully integrated system that covers all aspects necessary for high quality consumer experience. Opportunities for growth of medical tourism in the Caribbean can be facilitated through innovations in, and expansion of, the range of support services products. For example, with respect to insurance, binational health insurance plans could be offered to CARIFORUM Diaspora communities. Such an arrangement has been in place since 2004 for the Mexican Diaspora in California, with United States based and Mexican based entities permitted to sell medical tourism plans to both Mexican and U.S. Nationals. There could be an expansion of insurer recognized healthcare providers of choice for the global consumer market; and, insurers could offer preventative and wellness plan addons. At the State-to-State level, bilateral agreements with government funded healthcare plans could be pursued to improve accessibility of medical services in the CARIFORUM to nationals of major source markets. (Access Global Healthcare, 2013)

After the recovery period, there may be a Leisure link on the value chain. Patients can continue to operate as tourists and explore other parts of the country or enjoy various programs at the spa and wellness centers. In addition, family and friends traveling with the patient would have been utilizing tourism services throughout the trip. Another scenario is that the trip is made primarily for the Spa and Wellness services, in which case the health tourist would not move sequentially through all the links on the value chain in Figure 1. Rather, Spa Applications would replace the Treatment and Recovery link in the medical tourism value chain. This is the approach adopted in the Caribbean Spa and Wellness Strategy 2014-2018 (CEDA, 2013).

There are several medical and wellness facilities providing innovative services and non-traditional treatments to residents and nonresidents. These include water therapies (Hydrotherapy), facials, massage, sauna, Jacuzzi, salon services, dietary solutions and restricted consultant (specialist) treatments (CEDA, 2013). For example, in Barbados the Soothing Touch Da Spa branded therapies to local residents

and tourists alike (Soothing Touch, 2013). In Jamaica, Ted Emmanuel Naturopathic Solutions Center offers treatments for cancer, pediatric conditions, fibroids, high cholesterol, HIV/AIDS and malaria, skin care, stress, and other ailments (Ted Emanuel, 2013). The sub-sector is considered to be in its early stages of development in terms of size, level of organization, and level of regulation (CEDA, 2013).

4. 4. Governance Structure and Geographical Shifts

International players can potentially influence the supply chain through their own partnerships overseas and obligations arising from negotiated investment terms with host governments or public policies of the destination that influence their behavior in the market. Global lead firms in tourism specialize in particular segments of the tourism value chain, and may be involved in multiple segments. Lead firms have international marketing access and the coordination, logistics and bundling of the tourism product and its delivery. Therefore, they can affect pricing, industry standards, and the type and range of products offered. Tourism destination firm and institutional practices relating to purchasing, international market access, access to land and finance, and educational requirements can affect the structure of workforce and the allocation of benefits along the value chain (Christian, 2013).

Medical facilitators, or patient liaisons, are intermediaries between the tourist and the medical service provider. Deloitte (2008) divides them into four categories: Hotel Groups, Travel Agencies, Medical Travel Planners which represent patients as they seek treatment abroad, and Provider Groups which have dedicated clinical programs exclusively for international clients. In the case of the CARIFORUM, contract arrangements with international intermediaries do exist, as in the case for the Bayview Hospital in Barbados and cruise line operators (CRNM, 2001). There are also major international chain hotels operating in the CARIFORUM that bundle packages and promote specific services in their locales; for example, the Hilton, Hotel Four Seasons, the Marriot, and the Radisson Group. Tour operators, many operating as spinoffs of extra-regional airlines servicing the region, also play a significant role in linking tourists to Caribbean destinations. Caribbean industries have complained of being price takers obliged to heavily discount rooms in contracts with tour operators based in source markets who purchase

accommodation and packages in bulk. This reduces the margins of Caribbean tourism operators. The tour operator segment should be a target for upgrading in order to avert undercutting of the region's growing medical tourism market through tour operators' abuse of their dominant position. This prompted the CARIFORUM's successful advocacy for the inclusion of a tourism specific clause on competition in the Economic Partnership Agreement with Europe. Policy changes in tour operator markets have also affected the CARIFORUM suppliers negatively in the past, such as the EU Package Travel Directive, which obliged retrofitting of hotel facilities to meet EU standards (ECDPM, 2011).

The CARIFORUM may deviate from the Provider Group model since the medical tourism industry in the region consists mainly of locally owned private hospitals and with other medical facilities expanding their client base to include non-residents while maintaining their domestic clientele. At least one of the few international chain hospitals also serves locals and non-residents alike (Hospiten), and it is not clear if pipeline facilities will be exclusive. In Puerto Rico there is a local domestic chain called Grupo HIMA San Pablo Inc., which operates hospitals and centers in five locations across Puerto Rico. There is scope for expansion of these facilities into hospital chains domestically and regionally. The role of international chain hospitals will become important in the CARIFORUM as it seeks to attract foreign investment into ventures like Mobay Hope in Jamaica, or American World Clinics in Barbados and The Bahamas. Jamaica is also in talks with American Global MD. More in depth analysis of the relationships between the CARIFORUM medical tourism services providers and local and international partners is required, particularly in relation to medical services provision. There is merit in branding and collective marketing of the CARIFORUM medical facilities. However, adopting the Provider Group model directed towards exclusively international service could displace local health services provisions. It could also increase the vulnerability of the region through over-reliance on external markets.

4. 5. Prospects for CARIFORUM Upgrading in Global Medical Tourism Value Chains

The region, comprising largely of service-based economies, has an opportunity to capitalize on various entry points into the global

value chains given the range of services demanded by medical tourists in main source markets, and the existing leisure tourism relation between the Caribbean and these markets. Access to developed country markets has become increasingly dependent on participation in global value chains. Several firms based in CARIFORUM states have already been inserting themselves into these value chains. However, a comprehensive assessment is required to inform a coordinated strategy for propelling the sectors.

Nethersole (2012) recommended three key elements to Commonwealth Ministers for the successful establishment of a medical tourism industry; namely, accessibility, the Internet, and accreditation and healthcare standards. The CARIFORUM region is within easy access of the Americas and Europe, with which it holds cultural affinities. However, the cost of inbound and outbound transportation undermines accessibility. Technological advancements have generally made the practice of offshoring and managing quality outputs of offshore companies more feasible than in previous years. This holds true for medical tourism which is reliant on a significant Internet presence for marketing, customer care and the cross-border delivery of services such as medical advice and telemedicine. The process of managing relationships in medical tourism also relies on information and communication technologies. For example, a feature of major medical tourism destinations is the cluster of services provided by international patient liaisons, which includes the specific health related issues, hotel bookings, and tourism advice (Nethersole, 2012). While healthcare standards are being addressed to varying extents in the CARIFORUM, international accreditation requires specific attention.

Four possible types of value chain upgrading could be pursued by the CARIFORUM: change in process, change in products, functional (intra-chain) upgrading, and inter-sectoral upgrading (UNIDO, 2004). *A* case study of Costa Rica, Jordan, and Vietnam revealed that workforce development supports upgrading of the hotel segment and functional upgrading in the tour operator segment. Innovation in the medical tourism sector could also be achieved by improving the CARIFORUM capabilities in providing services, developing new specialty areas, for example, testing or high difficulty procedures, improved design and marketing of the region as a medical tourism destination, and diversifying

customers and tourist source markets. The feasibility of developing the capacity to produce products related to the industry, such as pharmaceuticals based on Caribbean traditional remedies and equipment, should also be assessed.

By focusing on all links in the value chain and on all activities in each link of a value chain, it becomes easier to distinguish activities subject to increasing or decreasing returns and to understand the nature and dynamics of innovation (UNIDO, 2004). Opportunities for new market entry points for CARIFORUM states in medical tourism include research and development through contract research organizations or services related pharmaceutical industry. Business processes in the pharmaceutical sector are increasingly being outsourced with major players operating through subsidiaries and affiliates in Latin America, while also having a presence or sub-contracts throughout the CARIFORUM for marketing and distribution. In order to reposition for value chain upgrading, CARIFORUM states would require retooling and strengthening of their legal and regulatory framework. Significant investment in human resource development would also be required.

4.5. 1. Know-how and Current Medical Tourism Performance

"The CARIFORUM region already has an established tourism infrastructure by which the medical tourism industry is a natural extension. The CARIFORUM also has an attractive climate and environment; well-trained health practitioners; reliable telecommunications and good transport infrastructure; an educated labor force; and lower labor costs than most developed countries" (CRNM, 2001; ECLAC, 2010). The range of services offered by CARIFORUM services providers is wide and apparently consistent with those demanded by certain markets. The region should try to identify specific markets for the services supplied through a matching exercise. Geographic clustering of medical facilities and support industries could also be a strategy for developing competencies, intra-firm linkages, and brand recognition to make CARIFORUM medical tourism players more attractive GVC partners. Clustering would encourage competitiveness, innovation, and the sharing of knowledge. Medical tourists would have easy access to a host of auxiliary tourist services and even introduction to other medical procedures

they could utilize while on their trip. The aim would be to encourage repeat visits and the productivity of marketing efforts.

The CARIFORUM region has a strong and generally consistent tourism relationship with the United States, Canada and Europe, which are top sources of medical tourists. There is also an overall increase in arrivals from "Other" source markets that require disaggregating. Analysis of tourism arrival data could be a useful starting point for the CARIFORUM industry and policymakers to begin their assessment of the extent to which current visitors are consuming medical tourism services. The picture across the CARIFORUM is one of varied performance over the years and in relation to the country of origin of tourists, but the overall trend is an upward one except in Europe where the underlying factors need to be more closely assessed as the region could be losing market share in the medical tourism segment.

In the United States tourism relationship with some states achieved an increase of over 10 percent in arrivals, such as Antigua and Barbuda with growth of 14 percent (93,214); Belize with growth of 21.1 percent (176,640); the Dominican Republic grew 18.8 percent (approx. 1.46 million), and as did Guyana (98,625). Some states are hovering at the same level or experiencing absolute decline in the U.S. market, such as Barbados where there was a moderate decrease of 8.2 percent in 2012 relative to 2011 and resulting in arrivals of 130,762. Dominica experienced a 7.5 percent drop in 2011 and a 6.5 percent recovery in 2012 (18,974) to almost equal the 2010 performance; Jamaica experienced a slight decline of 1.4 percent in 2011 and a recovery of 2.6 percent to almost 1.26 million persons. St. Lucia experienced an impressive growth of 30.8 percent followed by a 5.2 percent decline in 2011 and a further decline of 6 percent landing at arrivals of 115,065 in 2012.[4] In the CARIFORUM-Canada relationship, most states exhibited growth over both periods and some saw double-digit growth in both periods, signaling a dynamism in the relationship with Canada. Between 2010 and 2012, Antigua and Barbuda had an overall increase of 35.7 percent (24,185); Belize grew at a rate of 32.8 percent (24,224); Jamaica had an increase of 24 percent (403,200); and in Suriname the increase was 28 percent (2,205). There was a slight slippage in Barbados with a 2.4 percent decline to 72,351 (CTO, 2013).

However, the picture with Europe is troubling. In 2010, arrivals from Europe declined in ten CARIFORUM states, ranging from 0.9 percent in The Bahamas to 9.3 percent in Trinidad and Tobago. In 2011, this decline was seen in four countries, ranging from 0.8 percent in the Dominican Republic and Guyana to 6.7 percent in Jamaica. In 2012, there was a further decline in Barbados, the Dominican Republic, Grenada, and Jamaica. There was also a decline in Antigua and Barbuda and St. Vincent and the Grenadines in 2012 relative to 2011, but there was an overall increase from 2010-2012 of 1.1 percent (89,909) in Antigua and Barbuda and 15 percent (20,410) in St. Vincent and the Grenadines. Dominica and St. Lucia also experienced notable increases of 17.2 percent (12,567) and 9 percent (93,390), respectively, reflecting a rebound from the drop in numbers experienced by both countries in 2010. The decline in Europe relative to the CARIFORUM performance may be attributable to the economic crisis in Europe as well as the November 2009 restructuring of the Air Passenger Duty (APD) by the United Kingdom — the main European source country for English speaking CARIFORUM states (CTO, 2011). Further analysis is required to determine if the increased cost of long distance travel from the United Kingdom arising from the restructured Airport Passenger Duty has triggered a geographic shift in tourist travel destinations and the extent to which that shift consists of medical tourists.

The trends in non-traditional markets are equally important and they present a mixed picture. In six CARIFORUM countries, namely Antigua and Barbuda, Grenada, Jamaica, St. Lucia, St. Vincent and the Grenadines, and Trinidad and Tobago, arrivals declined from "Other" markets over the 2009-2010 period. In 2010-2011, this was the case for Belize, Dominica, and St. Vincent and the Grenadines. In the 2011-2012 period, arrivals declined for Antigua and Barbuda, Barbados, Grenada, St. Lucia and St. Vincent and the Grenadines. This suggests that resources may have shifted to focus on main markets and a lack of consistent marketing effort in non-traditional markets. While it is acknowledged that resources are increasingly limited, over-reliance on three main markets could make these CARIFORUM states more vulnerable to shocks arising from events in these markets. However, further research would be required to determine whether diversification is taking place in the tourism product and the crisis resilience of any tourism niches

offered. In terms of the outlook for 2013, the top five most visited Caribbean territories over the January-June 2013 period are the Dominican Republic, with an average of 41,144 visitors; Cuba with an average of 259,928; Jamaica with 176,548; Puerto Rico with 116,305 (January-March only), and The Bahamas, which ties with the U.S. Virgin Island, at 116,305 (CTO, 2013). Further analysis of the specific countries of origin in the "Other" category and the reason for trends in arrivals is necessary to determine how inflows to CARIFORUM can be improved from the category, as diversification of tourism source markets would be desirable for the CARIFORUM.

4. 5. 2. Quality of Medical Facilities and Human Resources

International accreditation of personnel and of facilities is vital to the industry. Accreditation gives assurance to medical tourists that the medical provider is qualified and provides a certain standard of treatment. However, it is important to note that the recognized standards and accreditation systems may be private standards and formal state-to-state systems and mutual recognition agreements may be required to ensure that these are objective and not unduly burdensome for the CARIFORUM medical tourism services suppliers. With respect to medical facilities, the Barbados Fertility Center is the only JCI accredited facility in the CARIFORUM region. Therefore, accreditation has to be a priority for the CARIFORUM to compete on quality in conventional medical services. The CARIFORUM should explore the feasibility of developing a regional accreditation and standards framework that is equivalent to international standards in order to ensure the relevance of quality standards to the CARIFORUM while creating a recognizable measure of quality for the region.

The CARIFORUM Spa and Wellness sub-sector requires greater standardization, benchmarked to international best practices, and a larger pool of certified professionals (CEDA, 2013). The region is focused on developing competitiveness through stakeholders driving the implementation of internationally recognized standards and best practices. The Caribbean Export Development Agency (CEDA) has been working with the Caribbean Spa and Wellness Association (C-SWA), CROSQ and CTO to sensitize stakeholders to regional assurance measures and standards for the spa and wellness sector, which are be-

ing benchmarked against international standards in Europe and North America. There are also training initiatives for professionals underway. The Caribbean Spa and Wellness Strategy 2014-2018 focuses on the Development and Organization of the Sub-sector for Growth. It contemplates achieving uniformity in quality across the industry, product differentiation through greater use of the Caribbean's indigenous natural resources, and establishment of the Caribbean Spa and Wellness Seal of Approval (CSWSA) to be issued for compliance with minimum operating procedures and use of Caribbean products.

The Caribbean Tourism Organization (CTO) administers the Hospitality Assured Standard for Service and Business Excellence, which was created by the United Kingdom Institute of Hospitality and is consistent with the European Foundation for Quality Management Excellence Model. The framework is available to the tourism and hospitality industry as well as to other businesses. There are more than seventeen certified businesses in The Bahamas, Barbados, Dominica, Jamaica and Tobago and over fifty businesses going through the process of certification in these countries as well as in Antigua and Barbuda, and Grenada (Hospitality Assured, 2013). The wider utilization of this standards framework could improve the region's branding and competitiveness based on quality.

The CTO and the Caribbean Hotel and Tourism Association (CHTA) have mainly driven training of tourism professionals in the mainstream leisure and hospitality sector. The CTO Human Resources Technical Committee consists of the private sector, other non-state actors and governmental stakeholders, and they drive the CTO's Human Resources work to address Caribbean tourism education, training and career development needs. There is also a facility for language training for tourism professionals in thirty-eight languages (CTO, 2013); Gereffi (2011) notes language training as a best practice in Costa Rica, Jordan and Vietnam. There is also the Tourism Qualifications Framework, developed in 2003 (CTO, 2003), and has been incorporated in the competence based National Vocational Qualifications (NVQ) and Caribbean Vocational Qualifications (CVQ) systems of CARICOM. The Caribbean Association of National Training Agencies (CANTA) in the nine CARICOM Member Countries administers these systems in Antigua and Barbuda, The Bahamas, Barbados, Belize, Guyana, Jamaica, Montserrat,

St. Lucia, Trinidad and Tobago (CANTA, 2013). Several health related occupational standards are administered by CANTA, which relate to older adult and geriatric care, health screening, peri-operative surgical technology, and emergency medical care. For Spa and Wellness, the Barbados national training agency, in collaboration with the Coalition of Service Industries, has launched training programs for health and wellness professionals based on the United Kingdom ITEC certification in Complementary and Alternative Therapies (BCSI, 2013).

The Caribbean Association of Medical Councils (CAMC) is a regional organization of representatives from National Medical Councils of CARICOM States and of British Dependencies in the Caribbean. The CAMC has responsibility for registration and monitoring the practice of all categories of health personnel (CAMC, 2013). In the CARICOM, the Nursing Council promotes a common curriculum and regional standards. Given the possible differences in regulatory systems between the Dominican Republic and CARICOM, an analysis of equivalence would be necessary to determine whether regional cooperative initiatives on professional training would be feasible.

Based on the list of commonly demanded services and the differentiation of destination markets by the complexity of specialized procedures, medical tourism competitiveness appears to require highly trained experts in surgical procedures. The task in the region is to identify the surgical procedure techniques that can be accomplished at high quality and at a globally competitive price and then focus on developing or enhancing these procedures. The Caribbean is competing with Asia for patients from industrialized countries (ECLAC, 2010). Aside from price, Chambers & McIntosh (2008) suggest that the region's true competitive advantage is in providing an authentic experience for the consumer by utilizing the region's indigenous herbal remedies and treatments since competition based on price and quality in mainstream surgical procedures may be difficult due to constraints such as medical technological capability, staff expertise, and investment in healthcare facilities and infrastructure.

The number of health care professionals and experts in the region must also be assessed in relation to the medical tourism market size that would make investments in the sector viable. Trinidad and Tobago in its Draft National Strategy for Medical Tourism has already

identified a surplus in medical services provision capacity and has set tourist attraction and revenue targets for the sector (TTCSI, 2012). Plans to grow the industry must naturally consider proposals to build the current human capacity whether by way of educational reform or the attraction of highly skilled labor from abroad and from members of the Diaspora. Medical staff can also engage in study abroad programs or short internships that offer them international experience and training.

Independent actors and investors work closely with governments along the supply chain. Government support is necessary for infrastructural foundation, integration of related industries, and the oversight and enforcement of regulation and standards. Governments also play a role in developing the qualified experts and technically skilled labor force through its investment in education. Local consumer protection agencies, such as CROSQ, work to advocate for not only standards but also the protection of consumers. Professional associations along with accreditation bodies, both local and international, also support the industry and ensure high quality and professionalism of its members.

4.5. 3. Business Environment

In a 2013 OECD/UNWTO/WTO survey, tourism suppliers cited as their main difficulty the business environment and low labor skills. This seems to remain the case in some CARIFOURM territories based on the analysis above. It has been recognized that in order to boost competitiveness, there is a need to improve infrastructure and connectivity, strengthen institutions, diversify export markets, and promote private sector innovation (CARICOM Secretariat, 2013). However, given the economic situation of the region and the limited financial resources available to them, interventions will need to be strategic, targeted, and likely to generate speedy returns. The CARIFORUM has in the past successfully used cluster approaches for service sector development, though there have been issues with sustainability where efforts were piloted with donor funding. The cluster approach could be replicated for medical tourism.

Foreign investment has played a critical role in the development of the sectors examined. Investment in developing a cluster of services will serve the needs of multiple industries, and a strategic and coherent approach to developing essential support services to medical

tourism and the pharmaceutical industry would improve the positioning of CARIFORUM states in the value chains related to these sectors. The Caribbean business and economic environment affects the relative cost and attractiveness of doing business in the CARIFORUM. There are also disparities within the bloc that impede the region's ability to position itself as an economic space capable of undertaking large-scale activities. Entering and upgrading in international markets would require boosting competitiveness, especially in human capital in order to yield meaningful job creation. Ideally, a significant level of returns from foreign investment should be reinvested in the CARIFORUM countries rather than being repatriated. The Caribbean has to keep pace with other developing countries taking active steps to improve their business environment and investor perception, including regulatory modernization and procedural efficiencies.

4.5. 4. Cost

In more developed countries, the high cost of healthcare, lack of insurance coverage, wait times, non-existent or low quality medical procedures, coupled with technological shifts that have lowered the relative cost of traveling, and the spread of medical technologies and knowledge have contributed to the geographical shift of the value chain. The Caribbean region's close proximity to the U.S. should create a competitive advantage relative to other regional hubs such as those in the Asian region, if the quality and diversity of surgical procedures available limit the region's competitiveness in the mass market. The region instead has to choose its target market based on its current and potential competitive areas. State to state agreements can be used to secure medical tourists, while easing pressure on the health care services of the sending country. Many medical tourists do not have insurance at all, or they do not have insurance coverage for medical procedures done in certain countries. In situations where their insurance policy does not cover certain medical procedures, they are responsible for the costs of overseas procedures and are therefore sensitive to the price of services.

The lowest costs can be found in the Asian region in countries such as Malaysia, Thailand, and Vietnam. Price savings, compared to U.K. prices, range from 64-89 percent. Comparing the average costs of

other sought out procedures such as cosmetic surgery reveal similarly high cost savings, and many travelers are beginning to see the beneficial symbiotic relationship between tourism, health and wellness. Treatment Abroad's Price Watch Survey (Treatment Abroad, 2008) compared the average price of dental services, particularly wisdom teeth extraction, in several markets; namely the U.K. and in Costa Rica, Malaysia, Slovakia, Thailand, Turkey, Venezuela, and Vietnam. The survey revealed that for a procedure costing US$744, price savings of 88-89 percent could be made in Malaysia, Slovakia, and Vietnam. While doing the procedure in Venezuela, Turkey or Thailand could result in a price saving of 76-81 percent, in Costa Rica the procedure would result in a 64 percent saving. The CARIFORUM may also be able to compete on price for some services. For example, treatment of addictive disorders in Antigua and Barbuda was found to cost about 33 percent (one third) less than comparable facilities in the United States (CRNM, 2001). In relation to the United States and Canada, the prohibitively high visa costs and cumbersome application procedures presents an opportunity to capture some of the market share of CARIFORUM medical tourists and possibly the wider Americas for similar services with comparable quality of delivery. The CARIFORUM states impose visas on a few states, except for the Dominican Republic which issues visas at the border for a relatively low fee. However, a current review of relative prices of the CARIFORUM medical tourism services offering is required to determine the region's relative price competitiveness.

While quality assurance measurements and programs are crucial to the success of the industry, they may be costly and require significant investment. There must also be further investment in healthcare infrastructure by governments and the private sector. Part of the infrastructure assessment is a need to evaluate the impact of air lift costs on the total health package price and determine whether the region's prices are internationally competitive and, if not, ways to make the prices more competitive.

4. 5. 5. Potential for Linkages to Other Sectors - Pharmaceuticals

Growth in the biotech industry presents a strong opportunity for the region to capitalize on the outsourcing trends of major pharmaceutical companies aiming to cut costs and maintain high quality products.

The global pharmaceutical industry market is worth US$300 billion a year and expected to grow to US$400 billion within three years (WHO, 2013). The pharmaceutical industry is lucrative and highly monopolized. Ten of the largest drugs companies, six located in the U.S. and four in Europe, control over one third of the market with sales of more than US$10 billion a year and profit margins of about 30 percent (WHO, 2013). The most profitable small businesses in the U.S., in comparison, on average report pretax profit margins of approximately 10.4 percent to 16.5 percent (See Nelson, 2011). Amgen, a U.S. company, is the world's biggest biotechnology company, and it is expected to consolidate its market position with the recent acquisition of Onyx which specializes in drugs to treat blood for $10.4 billion,

With generics beginning to control larger proportions of revenue generation when compared to patented and protected products, the business models of pharmaceutical companies are changing. Consumer demand for lower prices at the same or higher quality places pressures on large firms that have often relied on the trading system to protect their patented products and adapt to market changes. The demonstrated effect is that traditional pharmaceutical companies in the United States and Europe are losing their high rates of returns to new entrants from developing countries, such as India, that can manufacture generic drugs at a cheaper cost and price. While concerns over quality, delays and regulatory compliance initially contributed to low outsourcing (Visiongain, 2013), pharmaceutical companies have been moving towards outsourcing various parts of their value chain to companies as a strategy for keeping up with the changing market forces.

The pharmaceutical value chain begins with research and development. This part of the value chain entails specialists who conduct research into the development of new products. Amgen, a leading U.S. pharmaceutical company, reported that in 2012 its total revenue was $17.3 billion, product sales generated $16.6 billion, and R&D expense was approximately $3.4 billion or 20.5 percent (Amgen, 2013). Research and development is outsourced to contract research organizations (CROs). The CRO services include providing skills and expertise in carrying out a range of research functions such as clinical studies, trials for drugs or medical devices, and data analyses (CEPTON). One such company in Jamaica that runs clinical trials is Biomedical Caledo-

nia Laboratory Limited. The company is currently certified to the ISO15189, an international standard, and has been labeled as a facility that provides accurate results (*Jamaica Observer*, 2013). The company is currently pursuing further accreditation so that it can compete in the international market. Some accreditation processes take several years. As such, the time is now for the region to start assessing its readiness for market entry into this field. Another CRO operating out of the region is Barbados' 4R company. The company provides excellent analytical research services and research management and resource services and has already attracted clients in Europe and the U.S. (Hillier, 2013). FIT-THR (Fit Human Resources) provides 'evidence-based' services derived from the latest medical trials worldwide (Hillier, 2013).

The next link in the value chain consists of the design of the product developed by engineers. The next stage is the supply and production of the product for the mass market. Manufacturing is outsourced to contract manufacturing organizations (CMOs). The CMOs offer engineering, design, and packaging services. "The medical device contract manufacturing market was worth $33.6bn in 2011. It is estimated that outsourcing has allowed OEMs (Original Equipment Manufacturers) to reduce costs by 10-30 percent" Visiongain, 2013). Some studies point toward the worldwide CMO market growing at a rate of about 10 percent annually (Pharma Live, 2011). "CMOs can provide innovative, state-of-the-art processes and production technologies to support the rapid technical transfer of products from R&D to commercial manufacturing" (Pharma Live, 2011). The contract manufacturing market is highly fragmented with thousands of companies competing for a small share of the market (Visiongain, 2013). However, the region should take note of consolidation trends that may lead to changes in the dynamics in the near future (Visiongain, 2013).

The final link of the value chain entails the distribution of the product. Service providers can capitalize on providing logistic services, marketing and sales. "Companies spend approximately one-third of all sales revenue on marketing products — roughly twice what they spend on research and development" (WHO, 2013). In the past, the parent pharmaceutical company usually controlled marketing and sales, but now marketing and sales can be contracted out to contract sales organizations, CSOs. Richard Lang, a pharmaceutical industry analyst for Vi-

siongain, said, "Pharmaceutical sales models are changing rapidly. Healthcare payers have greater influence in prescribing decisions, complicating market access strategies for pharmaceutical companies" (Visiongain 2012). There is a growing demand for outsourced sales teams that give pharmaceutical companies a competitive strategy for accessing these new markets (Visiongain 2012). A recent report published by Visiongain forecasts that revenues in the Contract Sales Organization (CSO) industry will grow to $3.9 billion globally in 2013 (Visiongain 2012). The predominantly English-speaking Caribbean region has the opportunity to capitalize on companies aimed at providing major pharmaceutical companies with marketing and sales services.

Figure 2: The Pharmaceutical Value Chain

Source: Duke University

There may be some overlap in the governance of the medical tourism and pharmaceutical value chain. Srai and Alinaghian (2009) identified three main groups of key supply chain actors in the pharmaceutical sector: institutional players, which include research, industry development, and specialist firms; government, which plays the roles of policy maker, regulator, and payer; and healthcare supply chain actors, which include primary providers (pharmacists), secondary healthcare providers (hospitals), and patients (the end users). Accreditation bodies for laboratories and inspection include the International Accreditation Cooperation of which Inter-American Accreditation Cooperation (IAAC) is a member (ILAC, 2012).

Geographic shifts in pharmaceutical GVCs are taking place. Outsourcing of various parts of the pharmaceutical value chain is leading to geographical shifts in the industry. Emerging countries such as India and Brazil have taken note of the growth and revenue potential of the industry and tapped into various parts of the pharmaceutical value chain. India's pharmaceutical industry is worth about US$14 billion (WTO, 2012). The geographic shifts hold significant possibilities for the Caribbean. Most CARIFORUM members distribute large pharmaceutical company products, but they have not taken advantage of other parts of the global value chain. Novartis, the number one pharmaceutical company in the world in 2012, has operations located in the Dominican Republic. The largest markets for medical tourists are in the U.S. and Europe. The Caribbean region has a close geographical proximity to six of the largest drug companies in the world — those located in the United States.

There has been limited discourse on how the fragmented Caribbean region could organize itself to create a "cluster" effect in biosciences. Hellier suggests that apart from institutional creation and strengthening specific to biosciences, there would also be a need for more efficiency, reliability and cost-competitiveness of the wider services sector to position the Caribbean for outsourcing (Hellier, 2013). The Caribbean region holds a vast quantity of natural resources, of which its large biodiversity, found in its rainforests and seas, can be used for the discovery of new medicine. The region holds two main opportunities for propelling its services providers in the pharmaceutical supply chain. It can either (1) capitalize on natural medicine pharmaceutical production and thereby take part in the whole supply chain or (2) develop CRO, CMO, and CSO companies that capitalize on the outsourced parts of the supply chain.

There are challenges to the region's prospects of entering into the competitive global value chain. On average, the region ranks low in innovation, according to the Global Innovation Index available for a few countries. Patent registration is an indication of innovation taking place in the region. There is limited data on the number of patent registration. For those with data, the patent registration is low, compared to countries such as Costa Rica that registered 5,376 patents in 2011. There is also little investment in R&D compared to top performers in the world.

An additional challenge to increasing competitiveness is the availability of skilled human resources. The region spends between 1.5-7.4 percent of GNI (gross national income) on education. Compared to countries such as Costa Rica (at 4 percent) and Malaysia (at 6 percent), the region fares well. Unfortunately, the region has very high migration rates of an already limited skilled labor force. The migration phenomenon presents both opportunities and challenges for development of the industry.

There are various policy routes the region can take to boost the competitiveness of its services and increase participation in the value chain. The most pressing need for tapping into the pharmaceutical industry is technical expertise, standards, and accreditation. Partnership between universities and the private sector can assist in developing curriculums that meet the employment needs of private sector organizations. Migration policies aiming to attract highly skilled labor that has migrated abroad and that retains talent at home can be pursued in an integrated framework seeking to provide the qualitative and infrastructural needs for the highly skilled labor pool. Regulatory bodies can be established to monitor and assist private sector firms in meeting international standards and accreditation. Clustering is another initiative that would spur knowledge sharing among these firms and increase their capacity and competitiveness on an international basis. Ultimately, the goal is to create a culture of innovation in the region's human capital base.

5. Caribbean Policy and Legal Framework for the Services Sector

5. 1. Industrial and Development Policies

Global value chains have significant implications for industrial and development policies which could inform strategies for insertion into a global value chain through the targeting of outsourced services tasked to achieve development and potentially "leapfrog" over manufacturing to services such as design, research and development, innovation or logistics, and marketing (Drake-Brockman, 2013). The prospect of providing high value added services to the pharmaceutical and medical tourism markets is an important one for the CARIFORUM, which, though involved in pharmaceutical manufacturing, face inherent

challenges in achieving economies of scale because of their size and geography. In positioning the region to integrate into global value chains in services, policymakers should adopt an integrated approach that takes into account complementary markets, and that does not create a disadvantage by raising relative prices across different interdependent markets.

The Caribbean Community (CARICOM) was originally constituted by the Treaty of Chaguaramas of 1973, and the Revised Treaty of Chaguaramas (2001) deepened the integration of the economies of the region through the Caribbean Single Market and Economy (CSME) which covers all factors of production. The CARICOM integration movement is geared towards creating a single economic space with harmonized policy framework and rules on trade and investment. The CSME regime, which has been identified as the principal mechanism for stimulating intra-regional trade, market integration, and growth in the region, has not been fully implemented and there is not yet agreement on all elements of the preferential regimes for trade in services and government procurement. Deeper levels of integration have been achieved in the OECS Sub-region created by the Treaty of Basseterre. There is also ongoing integration at the CARICOM-Dominican Republic level by virtue of the Free Trade Agreement they concluded in 1998 and their joint participation as the CARIFORUM in the 2008 CARIFORUM-European Union Economic Partnership Agreement (EPA).

The CARICOM states commit themselves under Chapter Four — Polices for Sectoral Development — of the Revised Treaty of Chaguaramas Establishing the Caribbean Community, including the CARICOM Single Market and Economy, to developing an industrial policy which would be aimed at internationally competitive and sustainable production of goods and services for the promotion of the region's economic and social development. Implementation would in part be achieved through the coordination of national industrial policies, diversification of the products and markets for goods and services to increase the export base and earnings, and institutional coordination at the Community and national levels. Member states would also achieve the objectives of the industrial policy through development and coordination of appropriate macroeconomic policies (See Articles 51 and 52). Specific consideration is also given to improving the competitiveness of

micro and small economic enterprise development (Article 53). Concerning the services sector, priority is given to developing programs and policies, particularly in infrastructural services, capacity-enhancing services like education and research and development services, as well as those that enhance competitiveness and facilitate cross-border provision of services (Article 54). The RTC also provides for sustainable tourism development and sets out its objectives (Article 55).

5.1.1. Services Sector Policies

Work towards a regional strategic plan for the services sector is underway based on the priority sectors endorsed by CARICOM Heads of Government. Sector policies or strategies have been developed for *inter alia* Information and Communication Technologies, Culture, and Tourism. On Research and Development, the policy framework is significantly less, and is more fragmented across states. The Caribbean Tourism Organization, in which all CARIFORUM states participate, has spearheaded a Sustainable Tourism Development Action Plan in place since 1999, and since then an annual forum for monitoring Sustainable Development in the Caribbean. At the national level, tourism sector policies are generally in place and are linked to investment and incentives legislation. These require upgrading or complementary measures to address the particularities of medical tourism. The CARIFORUM approach to medical tourism in the Caribbean has been a mix of government led initiatives through national development and export promotion policies, as well as private sector driven activities that oblige government attention, for example, fertility clinic in Barbados. The World Bank report highlights Cuba, Jordan and Singapore as illustrations of government led approach to trade in health services, while the results for Latin America and East Asia are considered mixed. It is important to maintain equity in access to health care and to ensure a balance in the allocation of resources normally dedicated to public health programs. Gonzales concludes that such crowding out would only take place when public funds are used to develop trade in health services, and that instead government's role should be a facilitative and monitoring one. The development and improvement of local health care and trade health services can be undertaken simultaneously, and in a mutually reinforcing way (CRNM, 2001). This signals the need for com-

mercially viable projects that can be supported by the private sector. Investment attraction and development of various sub-sectors that support the medical tourism value chain can create positive spillover effects into domestic health care systems. For example, the attraction of offshore medical tourism educational facilities in the CARIFORUM states such as Belize, Grenada, Jamaica, Saint Kitts Nevis are attended by locals and contribute to the cadre of medical professionals in the Caribbean.

At the national level, there are tourism policies across the CARIFORUM, but medical tourism policies are now being developed to address the particularities of this niche sector. A Draft National Strategy for Medical Tourism was prepared in Trinidad and Tobago in August 2012. The document sets medium term targets for the growth of the sector based on an assessment of existing hospital and private medical care service and key actions to be undertaken at the public and private levels; for example, facility upgrading and international accreditations and development of the medical liability and medical malpractice market (TTCSI, 2012). The Dominican Republic is in the initial stages of development of such a policy (Mora, 2014), as is Jamaica (Bobb-Semple, 2013). In the development of national polices and standards, CARIFORUM states should be mindful of the need for close coordination with institutions responsible for health, such as the Caribbean Association of Medical Councils (CAMC) in the case of CARICOM (CRNM, 2001).

The CARICOM Aid for Trade Strategy has been prepared under the supervision of the CARICOM Council for Trade and Economic Development since 2009, in consultation with regional stakeholders, and represents a "holistic and comprehensive approach towards competitiveness, and trade development" In order to improve competitiveness, improve efficiency and deepen global and regional economic integration, the CARICOM has set three strategic goals: (i) Upgrading Key Economic Infrastructure; (ii) Enhancing Competitiveness and Facilitating Trade Expansion and Diversification; and (iii) Deepening Regional Integration and Maximizing the Gains from External Trade Agreements.

The strategy highlights several key areas, validated by member states, for remedial action to be taken in order to realize the three goals, namely: Goal 1: Maritime Transport, ICT and Energy; Goal 2: Trade Facilitation, Sanitary and Phytosanitary Measures, Quality Infra-

structure, Services and Private Sector Development; and Goal 3: Deepening Regional Integration and Maximizing Gains from External Trade Agreements.

While several of the remedial activities are more relevant to goods production on services related to goods, it is important to note the focus on the ICT sector as an enabler and on private sector development. The treatment of services probably reflects reservations about narrowing the focus to sub-sectors as CARICOM states are broadly interested in a wide range of services, and periodic assessments have revealed economic activity and trading partners in non-traditional services sectors. The strategy highlights that two "early harvest" projects are particularly relevant to services provision and innovation. These are the Caribbean Broadband Transformation Strategy, which aims to create a single ICT space, develop a broadband strategy and a roadmap for analog switchover, and creating a mechanism for public-private partnerships in the telecom sector. The other is the Private Sector Innovation in the Caribbean: promoting and financing innovation, and establishing a trade financing mechanism. The Fourth Global Review of Aid for Trade, held in July 2013, focused on "connecting to value chains"

The UNCTAD suggests three initiatives to assist countries in preparing for global value chain positioning and upgrading: (i) synergistic trade and investment policies and institutions, including collaboration between trade and investment promotion agencies; (ii) regional industrial development to integrate regional trade and investment agreements focusing on liberalization and facilitation, and joint trade and investment promotion mechanisms and institutions; and (iii) sustainable export processing zones (EPZs) which are hubs for GVCs through incentives to transnational corporations and suppliers to GVCs (WIR,2013). At the CARICOM level, a Regional Strategic Plan for Services, which would cover exports, is being developed as well as a CARICOM Investment Code, and efforts are being made to harmonize fiscal incentives. Initiative one is achieved at the national level and initiative two is achieved at the CARIFORUM level through the Caribbean Association of Investment Promotion Agencies (CAIPA) and the Caribbean Export Development Agency. In relation to initiative three, most

CARIFORUM states have EPZs, but there is no regional coordination or harmonization of their activities.

At the CARICOM level, greater progress has been made on services sector-specific policies and coordination rather than on the development of a regional industrial policy. Investment incentives across the CARICOM do contemplate the tourism service sector; however, explicit provisions for medical tourism, contemplated in national development plans, are generally not covered in the CARIFORUM. Therefore, a legislative agenda is required for promotion of the sector, and such an agenda has been initiated in Jamaica. There is no specific policy for medical tourism in the Dominican Republic, though there are signs of active trade especially in cosmetic surgery. This is causing difficulty, as some of the services providers are not properly qualified and reflecting a lack of regulatory oversight of the sector. Regulations are required across the region to ensure consumer protection, including recourse in the case of malpractice, maintenance of quality and ethical standards, appropriate professional qualifications and licensing procedures and requirements, data protection, and portability of insurance. The CRNM 2001 report recommends joint ventures with health-care funding institutions to mitigate the limits on access to Caribbean health tourism services through non-portability, as well as a focus on cross border supply through telemedicine while noting that tele-diagnosis services were already being provided in the Caribbean.

A supportive legal and regulatory framework for the protection of intellectual property rights is required for both the medical tourism and pharmaceutical industries. Guyana has issued rights of exploration in its forests, which could be important for the discovery and development of new medicines. Similarly, with the support of BNDES, Brazil national councils have the rights of exploration of national forests. It is important to note that there is limited information on research and development expenditure and patent registration across the CARIFORUM.

5. 2. Trade Policy and Network of Trade Agreements[5]

Trade and investment policy is important in facilitating the provision of adequate infrastructure services, which are services that enable other industries such as financial services, information and communication services (including telecommunications), courier services,

transportation services, and services that support all types of transportation. These are essential services for the efficient operation of global value chains, including but not limited to those linked to manufacturing supply chains. Outsourcing of business functions abroad has provided new opportunities in offshore services provision for countries like India and the Philippines, particularly in information technology (IT) and business process outsourcing (BPO). The success in their positioning is attributed to the upgrading of infrastructure and support services, which lowered costs and boosted competitiveness of domestic firms; and deliberate improvement of trade facilitation and trade related regulations and procedures. Increasingly, there is call to move away from restrictive and discriminatory trade policy based on nationality, given the evidence that trade in intermediate goods and tasks complements trade in final goods and services exports, and that exports increasingly include intermediate goods sourced from abroad (OECD, 2013). This suggests that both a cluster approach to services liberalization and modal neutrality of commitments are necessary to foster services value chains as the mode of supply used by firms depends on cost.

At the multilateral level, the Dominican Republic and all CARICOM members, except the Bahamas and Montserrat, are members of the World Trade Organization (WTO). The Bahamas is in the process of accession. The CARICOM WTO members participate in the WTO as individual countries, but they collaborate around common interests in GATS talks through the Small Vulnerable Economies (SVE) Group and the African Caribbean and Pacific (ACP) Group. Although there were some coordination of CARICOM's GATS commitments and WTO offers, these are varied in terms of sectoral and modal coverage. The commitments of the CARIFORUM states were limited to specific sectors of interest, most commonly in professional services, computer and related services, research and development, and telecommunications. A few states have also made GATS offers in Professional Services, Research and Development, Other Business Services, Construction and Related Engineering Services, Distribution, Financial Services, Health related Services, Tourism and Travel Related Services, and Transportation services. There is a high level of fragmentation across the CARI-

FORUM WTO schedules and offers, which is reduced in the region's consolidated services offer in the CARIFORUM-EC EPA.

The slow pace of WTO negotiations and the difficulty of arriving at consensus on areas relevant to global services value chains potentially leaves the Caribbean at a time of increased proliferation of FTAs and RTAs in the region. Nakatomi predicts a possible scenario of a spaghetti bowl of mega FTAs with inconsistent rules on disciplines that may not be easily or quickly harmonized or incorporated into the WTO, including, for example, areas such as intellectual property rights protection on the Internet, personal data protection, and competition (Nakatomi, 2013). Nakatomi suggests that the extent to which the WTO could effectively regulate global supply chains is debatable given the dynamic nature of global value chains. This suggests that the CARIFORUM external trade policy at both the multilateral and bilateral levels should already anticipate possible GVC trends.

Outside of the World Trade Organization (WTO), the CARIFORUM's participation in bilateral and regional trade agreements could secure predictable and relatively favorable terms of access to strategic markets when compared to competing regions, and would reduce transaction costs to firms which currently have to maneuver multiple regimes depending on their trading partners. A trade policy first mover advantage coupled with coherent interventions to improve supply side constraints would benefit the region's small and medium-sized enterprises (SMEs) and micro SMEs firms. The CARIFORUM states have a significant network of free trade and partial scope agreements which would potentially enhance their already good geographical positioning for international value chains

The CARICOM-Cuba partial scope agreement in 2001 anticipated negotiation of an FTA between the parties covering trade in services at a later date. Notwithstanding the deferral of full negotiations, the Agreement identified specific sectors that could be covered and elements essential to the development of trade in services that could be implemented prior to the conclusion of the CARICOM services regime. It also articulated provisions on investment, tourism cooperation, and transportation. The CARICOM (12 Member States) and Costa Rica signed an FTA in March 2004, which entered into force in August 2005. The FTA focuses largely on trade in goods, but also sets out basic prin-

ciples on domestic regulation and creates a built-in agenda for the parties to review developments related to trade in services and consider the need for further disciplines in that area. There have been exploratory discussions about expanding the Agreement to other Central American countries, and such an expansion could provide synergies with the Central American market which has had significant experience with medical tourism. (Rochester-King, 2012). The CARICOM also has FTAs with Venezuela and Colombia, which should be considered in light of discussions on strengthening CELAC. Some CARICOM states have also signed partial scope agreements — namely Belize with Guatemala, Guyana and St. Kitts Nevis with Brazil, and Trinidad and Tobago with Panama.

Common bilateral trade agreement partners to CARICOM and the Dominican Republic are Costa Rica — for the Dominican Republic, this is as a part of Central America — and the European Union. The CARICOM also has trade agreements with Colombia while the Dominican Republic has an FTA with Central America and the United States (CAFTA). The CARICOM states, with the exception of Montserrat, and the Dominican Republic are also member states of the 33 Member Movement Community of Latin America and Caribbean States (CELAC), which aims to advance regional integration of the Americas and to expand to developing country trade through inter alia coalition with the BRICs. The CELAC has emerged from the Rio Group and the Latin American and Caribbean Summit on Integration and Development (CALC).

Several goods partial scope agreements are also in effect: Guyana-Brazil, which entered into force in 2004; Belize-Guatemala, which entered into force in April 2010; and the Dominican Republic-Panama agreement. In addition, the Trinidad and Tobago-Venezuela Partial Scope Agreement was expanded, resulting in the CARICOM-Venezuela agreement, which entered into force in 1994. There has been limited implementation of these bilateral agreements. However, the trade network should be revived as a means of securing markets for medical tourism goods and related services.

5. 2. 1. Intra-CARIFORUM Integration: The Caribbean Community, CARICOM-Dominican Republic Free Trade Agreement and CARIFORUM Regional Integration

Chapter Five of the CARICOM's Revised Treaty of Chaguaramas RTC provides for internal liberalization and sets out the goals and elements of the Community Trade Policy, which include creating a single market and securing the most favorable terms in external trade agreements. The CARICOM and the Dominican Republic have had a FTA in place since 1998, and there are ongoing discussions about its implementation and completion of the built-in agenda. The CARICOM-Dominican Republic FTA makes provision for reciprocal goods tariff liberalization between CARICOM's more developed countries — The Bahamas, Barbados, Guyana, Jamaica, Suriname and Trinidad and Tobago — and the Dominican Republic. The less developed CARICOM countries — the OECS and Belize — are shielded from the obligation to grant reciprocity to the Dominican Republic and benefit from non-reciprocal market access to the Dominican Republic. A fundamental objective of the Agreement is the progressive liberalization of trade in services between the Parties. The Agreement specifies priority for co-operation activities in the following services: construction, tourism, transportation, telecommunications, banking, insurance, capital markets, and professional services. Additionally, the FTA contains an Agreement on the Reciprocal Promotion and Protection of Investments, and the Parties commit to liberalize trade in services between themselves by the establishment of a framework of principles and rules and to deepen the degree of liberalization of trade in services through future negotiations to be convened by the CARICOM- Dominican Republic Council.

The Parties have not yet negotiated the liberalization commitments provided for in the Annex II framework of principles and rules of the Agreement, the Annex on Temporary Entry of Business Persons, or the Appendix to the Annex on Trade in Services relating to Professional Services. The result is that there is currently no preferential regime for the trade in services between the Parties, although such a regime could help promote collaboration in the medical tourism sector. The Dominican Republic has also expressed an interest in joining the CARICOM, and this would obviate the need to complete the built in agenda and

would fulfill the anticipated regional preference between CARICOM and the Dominican Republic relative to the European Union, as anticipated under Article 238 of the EPA.

6. Conclusions: Prospects for Global Value Chains in Services in the Caribbean

Growth trends in several CARIFORUM states give a positive indication of a successful transition away from preference dependence and a measure of resilience to the global economic crisis. However, several CARIFORUM states are losing their ranking on the World Bank's *Doing Business Index*, suggesting the need for a closer look by policymakers on investment facilitation relating to the causes of the slippage.

Tourism remains an important contributor to the CARIFORUM states, and it is evident that the well-needed diversification of that sector is occurring. However, the scope of the regional medical tourism market has not been defined, nor has the relative contribution of tourism niche markets been fully assessed. It is clear that medical tourism is being exported and playing an increasingly important role based on the range of medical tourism services now being offered relative to the initial assessments of the sector. However, the industry remains vulnerable. This can be remedied through branding, improved relationship with medical tourism facilitators, and upgrading in the tour operator segment. Political cooperation through trade agreements is also necessary to reduce threats such as the fallout in the European tourism market.

Strategic repositioning in the medical tourism global value chains presents a viable option for achieving economic diversification and growth in the CARIFORUM. Based on the known services provided by the CARIFORUM, the region could service the needs of medical tourists in the areas provided by the top eight most visited medical tourism destinations in several procedures. The region has the industry experience and networks to exploit new tourism niches, and the institutional capacity to deliver skills upgrading for participation in medical tourism GVC. In addition, the CARIFORUM "induce" a geographical shift by capturing market share of regional medical tourists who currently travel to developed country markets like the United States and Canada. However, a comprehensive assessment is required to inform a coordinated

strategy for propelling the medical tourism sector and developing the capacity to produce goods related to the industry, such as pharmaceuticals based on Caribbean traditional remedies and equipment.

The CARIFORUM region has done a significant analysis relating to the development of this niche segment and has made commitments to its expansion. The CARIFORUM states are at varying stages in the process of domestic policy and regulatory development to support investment and growth of the medical tourism, while ensuring social and environmental preservation. Given the increasing geographic fragmentation of business operations leading up to the delivery of medical tourism services and related goods to consumers, there is room for the region to improve its market position along the entire value chain. A regional approach would maximize efforts towards development through knowledge sharing, policy coherence, and collective marketing. Much of the development of medical tourism is occurring outside of a specific legal and policy framework. A holistic view of health services is required to ensure proper regulation of traditional and non-traditional or alternative medicine, including the spa and wellness sector. The line drawn between medical and health services and wellness results is an artificial differentiation in the level of regulation across these sectors in different territories, and impedes their trade under a formal framework. Concerning trade policy, closer analysis of the interaction of firms along service value chains should inform external trade priorities for the CARIFORUM region. Medical tourism is clearly linked to other niche tourism sectors, like ecotourism and heritage tourism, as well as to the research and development of pharmaceutical companies.

Foreign direct investment will be crucial to the development of the medical tourism sector given the limited resources available to several states due to their high indebtedness and sluggish growth rates. The CARIFORUM has signaled its openness to foreign investment through its trade commitments in the WTO and in the CARIFORUM-EU EPA, and full implementation of that agreement would be beneficial to both investment seeking CARIFORUM states and to prospective European investors. The CAFTA positions the Dominican Republic to build on linkages with the Central American and United States markets, where there are already competencies in medical tourism services provision, support services, and pharmaceutical production. The

CARICOM-Canada and the Canada-Dominican Republic negotiations hold similar prospects, and conclusion of those agreements could promote synergies and increased investment flows between the parties by virtue of their coverage of services, investment promotion and protection, and facilitation of businesspersons. However, regulatory modernization and enhancement of procedural efficiencies may improve the perception of investors.

Further research is required to inform CARIFORUM policies, strategies and legislative agenda towards this end. The CARIFORUM states are still in the process of crafting their services sector development and would benefit from an analysis of their services trade restrictiveness to inform services policy development. Additionally, conventional data collection methods tend to underestimate the value of services, their real contribution to value added in other industry, and, consequently, the actual economic gains to trading partners has not been adequately assessed to usefully inform targeted policy making and planning for GVC upgrading in most states. This research agenda should be given priority by the CARIFORUM. Strategic GVC insertion and upgrading in medical tourism services by the CARIFORUM will also require a review of relative prices of the CARIFORUM medical tourism services offering in order to determine the region's relative price competitiveness.

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ENDNOTES

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[2] Carreras 2006, as found in OECD "Medical Tourism: Treatments, Markets and Health System Implications: A Scoping Review" (2011). Available from http://www.oecd.org/els/health-systems/48723982.pdf

[3] See, for example, tourism value chain in WTO, UNWTO, OECD *Aid for Trade and Value Chains in Tourism 2013.*

[4] Figures not available for Trinidad and Tobago for 2011 and 2012.

[5] The texts of the trade agreements referenced are available on the Organization of American States. See www/sice.oas.org.

[6] This recommendation was originally made in the Caribbean Regional Negotiating Machinery Study, L. Barfleur (ARK) EC-ALS, K. Logossah (CEREGMIA, I.F.G. CAR)

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