

Final Report:

**CONSULTANCY SERVICE FOR DEVELOPMENT OF A HEALTH CARE SERVICES
STRATEGY FOR MEDICAL TOURISM IN RWANDA:**

Paving the Way for Medical Tourism in Rwanda

Submitted to:



Prepared By:



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Executive Summary – Paving the Way for Medical Tourism in Rwanda

The services sector is expected to be “the most important engine” of Rwanda’s economy by the year 2020. Investments in the services sector are key to achieving **EDPRS II goals of 11.5% annual growthⁱ**. Medical tourism provides a **unique opportunity to contribute to growth while ensuring that the key goal of EDPRS II of providing a better quality of life for all Rwandans** is met through the provision of better healthcare.

The medical tourism market is estimated to be growing at a rate of **15-25% per annumⁱⁱ**. Various studies size the global market at market **at between \$24-100 billion per annumⁱⁱⁱ** with **eight million cross border patients** worldwide. Medical tourism spend is estimated at between **\$3,000 and \$5,000** per visit. In East Africa alone, our research & analysis suggests an addressable market size of **\$144 million** for Rwanda’s target specialties^{iv}.

Medical tourism has had great economic benefits for a number of countries. **India’s** medical tourism industry was for example predicted to be worth **\$2 billion in 2012**, which was between 6-7% of their GDP^v. **Tunisia’s** medical tourism industry was valued at **\$223 million in 2007^{vi}** while **South Africa** generated an estimated **\$184 million** in revenues in 2010.

Based on our research to date, including consultations with international experts and Rwandan stakeholders, we firmly believe that there is a way for Rwanda to compete in medical tourism including wellness tourism. Our analysis reveals that **diagnostics, cardiology, oncology and nephrology** are the highest in demand specialties in the region. Medical tourism has the potential to generate \$18 M in revenues by 2018.

A survey taken by 81 local regional and international doctors^{vii} provides key insights into how Rwanda stacks up against her regional competition and where to focus her efforts to improve. Specifically:

- Rwanda wins in the region on the following factors general **safety and security** (3.83/5), **cost of treatment** (3.14/5) and **travel cost and accessibility** (3.05/5)
- Rwanda scores poorly on **quality of after care services** (1.88/5), **availability and quality of equipment** (2.05/5) and information on **quality and cost of treatment** (2.14/5).
- To rapidly improve the sector, the survey results point to **intensifying training on service delivery, investing in more laboratory and diagnostic equipment as well increasing number of trained specialist doctors**.

There are **three key factors that will determine Rwanda’s ultimate success or failure** in medical tourism:

- **Go beyond universal primary care** and develop world-class specialty healthcare services
- **Encourage investment** by specialized healthcare services providers through targeted investment promotion
- **Position Rwanda** as a specialized regional medical tourism hub through marketing & bilateral accords

Success in medical tourism will be a **team effort** that will require the participation of the entire cluster:

- **RDB** should take the lead on facilitating investment and promoting Rwanda as a medical tourism destination
- The **MoH** must ensure that medical tourism serves the broader goal of upgrading the healthcare system
- The **incumbent private sector** must be an active player in this upgrade by investing in its own capabilities

To unleash the potential of the medical tourism industry, 5 key and 2 supporting actions must be executed:

- Upgrade the business environment for medical services specifically by revising the existing pricing schemes.
- Implement a customer care campaign with a focus on post-procedure care to provide a professional product
- Develop financing and leasing products to allow service providers to upgrade specialized medical equipment
- Reinforce specialty skills building through global partnerships with established market leaders
- Attract global specialty centers in oncology, nephrology and cardiology to anchor the cluster
- **Supporting actions:** Marketing & branding plus monitoring & evaluation.

PAVING THE WAY FOR MEDICAL TOURISM IN RWANDA

Preparing Rwanda to be East Africa’s Premier Medical Tourism Destination

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PAVING THE WAY FOR MEDICAL TOURISM IN RWANDA

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I. Building the Foundation For Medical Tourism in Rwanda – Action Plan

Rwanda has the potential to become a premier medical tourism destination in the next 3-5 years. A strong medical tourism product is often a by-product of a strong health care industry. Rwanda will need to go beyond universal primary care and develop world-class specialty healthcare services, encourage investment by specialized healthcare services providers and build the specialty skills base in the country.

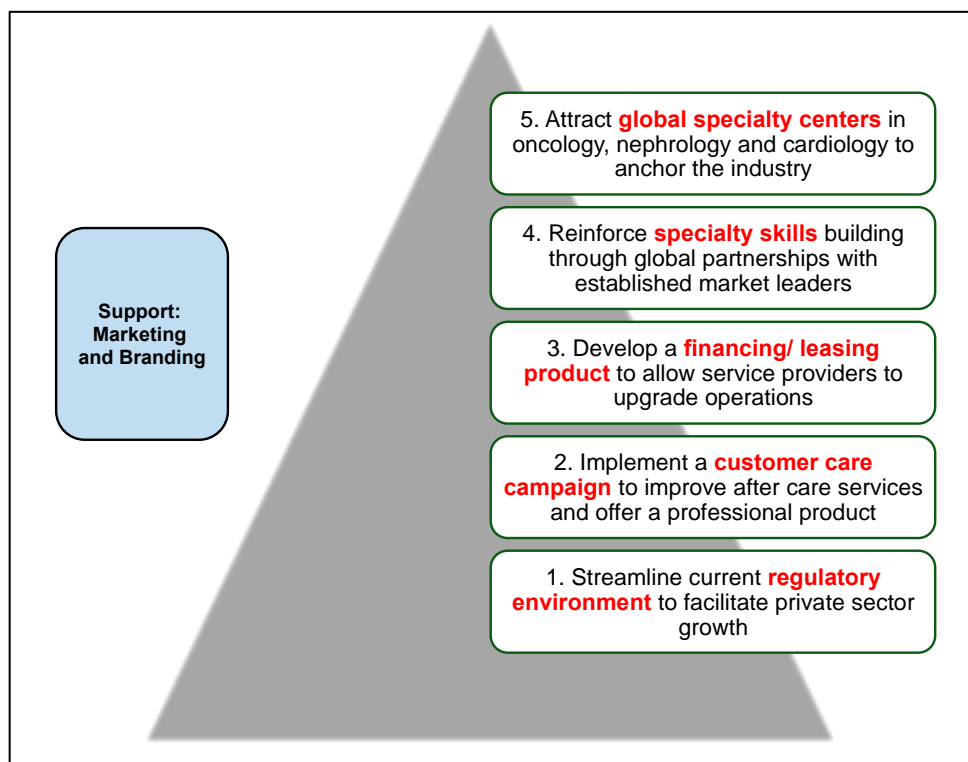
This section will outline concrete actions that will translate the vision of a premier medical tourism destination into reality. The section will outline a detailed implementation plan, programs and budgets and anchor investments. The recommendations in this section combine the benchmarking exercise and insights from the survey and stakeholder interviews to draw a roadmap for Rwanda’s medical tourism offering.

A. Action Plan and Implementation Framework

In order to achieve this potential five key priorities and two supporting actions must be addressed.

- Streamline the business environment for medical services specifically by revising the existing pricing schemes and medical tariffs
- Implement a customer care campaign with a focus on post-procedure care to provide a professional product
- Develop financing and leasing products to allow service providers to upgrade operations by purchasing specialized medical equipment and expanding operations
- Reinforce specialty skills building through global partnerships with established market leaders
- Attract global specialty centers in oncology, nephrology and cardiology to anchor the cluster
- **Supporting actions:** Marketing & branding

Illustration 1 : Priorities to lay the foundation for Rwanda’s medical tourism destination



Priority 1: Streamline the business environment for medical services to facilitate private sector growth

Current health sector regulations need to be streamlined to facilitate the entry, operations and growth of Rwanda's private health sector. Key changes to the regulations includes; introducing a single window clearance, standardization of prices and medical tariffs, creating the environment for an additional health insurance product, and ensuring quality regulations prior to treatment.

The single window clearance will facilitate the easy registration of new health sector related businesses. A single window clearance will act as a one-stop shop for registration of new health sector businesses. Having all the licensing agents under one roof will ensure fast, efficient and coordinated business registration. If implemented, Rwanda will be the pioneer for such a system.

A committee of select and representative health care professionals will operate the single window clearance system. This committee should be made up of a representative of the Ministry of Health (MOH), Rwanda Development Board (RDB), Rwanda Medical Council (RMC), Rwanda Social Security Board (RSSB), and a local banker. This committee could be housed either at RDB or the Ministry of Health.

This committee will be in charge of vetting and licensing different aspects of the new business. This committee will vet and ensure that the new business has doctors with the right credentials, has enough resources to be sustainable, and has the needed equipment to operate. Once this is ascertained, MOH and RDB can then offer the business registration license and provide all necessary facilitation such as access to land and incentives.

The current pricing schemes and medical tariffs need to be revised so as to ensure the profitability of private health care operations. The current perception of the private sector is that medical prices are determined arbitrarily and render private ventures unprofitable. Revised medical tariffs should therefore be set in collaboration with the private sector and take into consideration their profitability.

Finally, Rwanda should develop a one-year multi entry medical tourism visa for patients and two companions. India currently offers a medical tourism visa for patients seeking treatment in reputed and recognized hospitals. Up to two medical attendants are allowed to accompany the patient and the initial duration of the visa is up to one year or the period of treatment whichever is less. The visa is valid for 3 entries during the one year.

Illustration 2 : Actions for a streamlined regulatory environment

Streamlined Regulatory Environment	
Rationale	<ul style="list-style-type: none">• A streamlined regulatory environment that facilitates the entry, operations and growth of the health care sector
Key features	<ul style="list-style-type: none">• Revision of medical tariffs and prices• Single window clearance• Medical Tourism Visa• Quality regulations prior to treatment• Quality control maintenance• Regulatory areas: infrastructure, medical, fire, drugs, finance
Responsible	Rwanda Medical Association, Medical Council, MINISANTE, RDB, RSSB, RBS
Priority Actions	<ul style="list-style-type: none">• Revise existing medical prices and tariffs• Set up a single window clearance committee• Roll out a medical tourism visa

Priority 2: Implement a customer care campaign with a focus on post-procedure care to provide a professional product

Exceptional customer service including quality after care services is essential if Rwanda is to become a medical tourism destination. A lapse in service in the health sector can mean the difference between the life and death of patients. As such, poor customer care and after care services have serious reputational repercussions for any country, especially those positioning themselves as medical tourism destinations.

Rwanda scored lowest (1.88/5) on quality of after care services in the Health Care Services Survey (2013). Anecdotal evidence also points to the fact that Rwanda's quality of health care delivery still needs to be improved upon. Rwanda's health care professionals need to not only appreciate the importance of exceptional customer service but they also need to be empowered to offer exceptional customer service.

Exceptional customer service includes offering safe, timely, effective and efficient health care services. These services should be industry led and championed if they are to be effective and sustainable. Key to reinforcing excellent customer service are systems that not only ensure continuous learning and improvement but also those that also award professionals who are meeting industry standards.

The customer care campaigns improvements need to be owned and championed by professionals in the health care sector. A key first step will be to establish a holistic and nationwide vision for health care service delivery owned by the professionals. A core team would then be set up to champion the implementation of this vision. Voluntary certification based on international standards of customer care and revised guidelines for clinical practice implemented by an independent review panel should also be implemented.

Illustration 3 : Actions for improved health care delivery and customer service

Improved Health Care Delivery and Customer Service	
Rationale	<ul style="list-style-type: none"> • Empower health care professionals to offer exceptional customer care and excellent health care services
Key features	<ul style="list-style-type: none"> • Safe, timely, effective and efficient health care services • Physician led improvements and customer care • Awards for champions in the industry • Continuous learning and upgrading of skills (model for improvement) • Innovative ICT led solutions to offer exemplary service
Responsible	MINISANTE, Rwanda Medical Association, Medical Council, RDB
Actions	<ul style="list-style-type: none"> • Set up a holistic and nationwide vision for health care customer service • Set up a core team of industry professionals to champion cause • Initiate easy quick win actions to foster excellent health care delivery




Priority 3: Develop financing and leasing products to allow service providers to upgrade operations by purchasing specialized medical equipment and expanding operations

Access to finance for both the public and private sector is critical if Rwanda is to take off as a medical tourism destination. Financing sources include both traditional and non-traditional sources that can be used to facilitate different facets of the health sector business. Access to finance would assist the industry to purchase medical equipment, train personnel and even set up physical structures such as hospitals and clinics.

Private banks have successfully developed suitable financing products for the private health care sector. In Uganda for example, Stanbic Bank developed a specific asset-financing product for the health sector while fidelity Bank in Nigeria has a working capital product for pharmacies. Bicbanco in Brazil has specific banking products for clinics and smaller hospitals that provide government services.

Government funded development banks have also been instrumental in developing medical tourism. The Development Bank of Philippines has a hospital financing program which covers up to 75% of the total project cost with a favorable payment plan of up to 10 years with a 3 year grace period. A health care infrastructure project offers up to 80% of the total loan required to be repaid over a 10 year period.

Illustration 4 : Select Case Studies on Health Sector Financing

  					
<table><tr><th>Health care financing products provided</th></tr><tr><td><ul style="list-style-type: none">• Stanbic Uganda: specific asset financing product for the health sector• Fidelity Bank Nigeria: working capital loan products for pharmacies• Bicbanco Brazil: lending to clinics and small hospitals contracted by the government to provide health services</td></tr></table>	Health care financing products provided	<ul style="list-style-type: none">• Stanbic Uganda: specific asset financing product for the health sector• Fidelity Bank Nigeria: working capital loan products for pharmacies• Bicbanco Brazil: lending to clinics and small hospitals contracted by the government to provide health services	<table><tr><th>Health Care Specific Loans</th></tr><tr><td><p>1) DBP Lending Program on Housing Health Care and Education:</p><p>Terms: Up to 80% of loan. Repayment, up to 10 years with a 3 year grace period.</p><p>2) Hospital financing Program:</p><p>Terms: 75% of project cost but not exceeding \$3M. Payable within 10 years with a 3 year grace period</p></td></tr></table>	Health Care Specific Loans	<p>1) DBP Lending Program on Housing Health Care and Education:</p> <p>Terms: Up to 80% of loan. Repayment, up to 10 years with a 3 year grace period.</p> <p>2) Hospital financing Program:</p> <p>Terms: 75% of project cost but not exceeding \$3M. Payable within 10 years with a 3 year grace period</p>
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Rwanda private banks should be encouraged to develop competitive financing products including leasing for the health care sector. In order for this to happen, banks need an increased understanding of the health care industry business, its profitability potential and revenue cycles. The Rwanda Medical Council and the Rwanda Bankers Association should forge a partnership to facilitate this exchange and learning.

The Government can also set up a guarantee fund to benefit businesses in the medical tourism sector. Similar to the Philippines, the government could also, through the different banks set up government backed funded products for infrastructure set up and for purchasing or leasing equipment through. This government backed funding mechanism will be key in offering suitable financing cycles with a grace period for the health sector industry.

Illustration 5 : Actions for increasing access to finance

Increased Access to Finance	
Rationale	<ul style="list-style-type: none"> • Develop financing and leasing products to allow service providers to upgrade operations by purchasing specialized medical equipment and expanding operations
Key features	<ul style="list-style-type: none"> • Increased understanding of the health care sector by banks • Competitive financing products offered by banks for the health sector • Suitable financing cycles for various medical tourism related businesses • Government backed financing for medical tourism products
Responsible	MINISANTE, BRD, MINECOFIN, RMC, AMP, Rwanda Medical Association, RDB, Bankers Association
Actions	<ul style="list-style-type: none"> • Build capacity of health sector professionals to approach banks • Highlight the health care industry as a profitable business opportunity for private banks • Outline medical tourism as priority sector for a guarantee fund

Priority 4: Reinforce specialty skills building through global partnerships with established market leaders

A successful medical tourism product is hinged on the capacity and skills of its medical tourism professionals. Rwanda currently has 3 oncologists, 3 nephrologists and 2 cardiologists in the whole country. Successful medical tourism destinations have a high number of specialty doctors. In addition, these destinations have a medical training system that ensures sufficient number of graduates entering the system and specializing in key skills.

Rwanda needs to have a mechanism that guarantees not only quality but also quantity of key specialty skills. Rwanda has already developed some key partnerships for building the health care sector capacity through the Human Resources for Health (HRH) program. Rwanda needs to expand its network of global partnerships to include other reputable hospitals and specialists to facilitate effective skills building and transfer.

Rwanda will need to align Rwanda's health sector capacity building plans to the overall medical tourism and health care strategy for the country. Once these skills have been identified, a carefully rolled out phased capacity building approach will ensure that the projected skills are achieved. The Ministry of Health, School of Medicine and medical doctors associations' should take charge of this initiative.

The administration of incentives for foreign investors should be hinged on ensuring transfer of knowledge to local staff and hiring of local staff. The single window clearance committee and especially the Rwanda Medical Council should be responsible for ensuring that international hospitals adhere to this requirement. An example of this would be to require Agarwal to train at least five Rwandan optometrists in a span of five years.

Illustration 6 : Actions for reinforcing the quality and quantity of specialty skills

Reinforced Quantity and Quality of Specialty Skills	
Rationale	<ul style="list-style-type: none"> Reinforce specialty skills building through global partnerships with established market leaders
Key features	<ul style="list-style-type: none"> Incentives for local and international medical schools Increased intake of medical students with focus on selected specialties Partnerships with reputable hospitals and specialists Identify local talent offer scholarship/loans/compulsory training by companies entering Rwanda
Responsible	MINISANTE, MINEDUC, RDB, RMC, UoR, Rwanda Medical Association
Actions	<ul style="list-style-type: none"> Align skills needed to overall medical tourism strategy Identify key partners for skills building and initiate MOUs Roll out a phased capacity building approach to upgrade skills

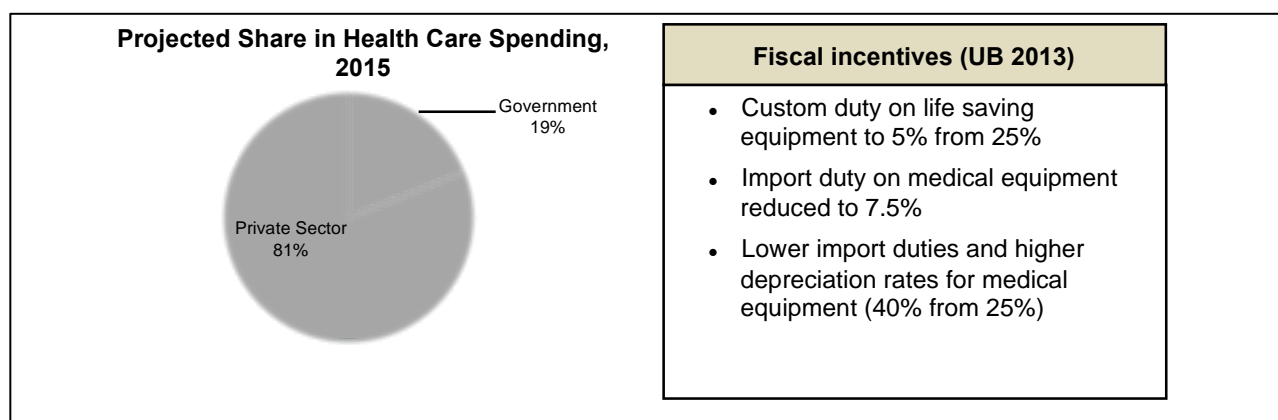
Priority 5: Attract global specialty centers in oncology, nephrology and cardiology to anchor the cluster

An attractive investment and fiscal regime will attract appropriate investments into the medical tourism industry. The new investment code stipulates that a registered investor investing at least \$50M and contributing at least 30% of this investment in form of equity in tourism and health facilities will be entitled to a maximum seven (7) year income tax holiday. The new code makes provision for accelerated depreciation.

Rwanda should increase the number of years eligible for applying accelerated depreciation on equipment. In addition, the new investment code stipulates that a registered investor investing in assets worth at least \$50,000 will be entitled to a flat accelerated depreciation rate of fifty per cent (50%) for the first year. While encouraging, the number of years should be increased to at least five years.

Additional fiscal incentives should be leveraged to attract investments in the health tourism sector. In addition to the above incentives, Rwanda currently offers tax incentives for importing medical equipment. To make the sector more competitive, Rwanda should in addition offer access to land and land concessions were applicable. These are critical for the medical tourism hubs, doctor's plaza and the health special economic zone to take off.

Illustration 7 : Health Care Fiscal Incentives announced in India's 2013 budget



All the earlier illustrated actions will ensure that Rwanda attracts key global specialty centers in oncology, cardiology and nephrology. Global specialty centers will be attracted to Rwanda if it has a favorable regulatory environment that will enable them to operate profitably and if they have the skills needed to operate. In addition, they will be attracted to a country that has a culture of offering exceptional health care services as well as necessary fiscal and operational incentives.

Illustration 8 : Actions to attract global specialty centers in oncology, nephrology and cardiology

Attract global specialty centers in oncology, nephrology and cardiology	
Rationale	<ul style="list-style-type: none"> • Attract global specialty centers in oncology, nephrology and cardiology to anchor the cluster
Key features	<ul style="list-style-type: none"> • Initiate a health care free zone/ one stop shop for medical services • Accelerated depreciation rates for medical equipment • Option to claim back credit for underlying and withholding foreign tax • Access to land/space at doctors' plaza/health care free zone
Responsible	RDB, RRA, MINISANTE, Rwanda Medical Association, RMC
Actions	<ul style="list-style-type: none"> • Administer accelerated depreciation rates for equipment at 40% • Publish and communicate applicable tax incentives • Identify location for health care special economic zone and doctors' plaza

Supporting Action – Marketing and Branding

Media visibility is key in creating excitement about the medical tourism opportunities available in the country. It is important to highlight key success stories such as the number of complicated brain surgeries that are successfully completed in Rwanda and number of doctors receiving specialists training. These will inject extra confidence in Rwanda's health care delivery and its future potential as a medical tourism destination.

Singaporemedicine, a multi-agency government-industry partnership successfully promotes Singapore as a world-class medical tourism destination. Singaporemedicine is made up of EDB which is charged with attracting investments, and the Singapore Tourism Board which is in charge of marketing Singapore's tourism resources. This industry collaboration ensures effectiveness of marketing and branding efforts for Singapore.


Singapore uses trade shows and fairs to promote their medical tourism offering. Aside from attending fairs, it also organizes strategic trade shows and fairs. Singapore has hosted the Medical Fair Asia for the past 10 years. It also hosts a number of key medical related conferences all facilitated by the Singapore Tourism Board under the auspices of Singaporemedicine.

India uses tourism fairs and road shows to market and brand their medical tourism offering. India has a dedicated exhibition space for Medical Tourism in ITB, Berlin. The government offers both financial and market development assistance to key players to attend the fair. India has carried out road shows to advertise its medical tourism offering in Kenya, Canada and West Asia (Dubai, Riyadh, Kuwait and Doha). In addition, the Ministry of Tourism has produced CDs and other publicity materials to promote medical and health tourism^{viii}.

South Africa uses medical facilitators to market its offering. Medical tourism facilitators/brokers assist interested patients with selecting hospitals abroad, visa applications and other paperwork, making travel and tourism arrangements, and sometimes also with organizing follow-up care at home. They can be situated in patients home countries, in destination nations, and in third-party countries.

Rwanda's marketing and branding initiative will be implemented to promote Rwanda as an upcoming medical tourism destination of choice. One department within RDB should be charged with the coordination of this initiative. The goal of this department would be to develop a clear brand positioning for Rwanda's offering, as well as a clear messaging promoting new investments for the industry.

Illustration 9 : Case study and actions for marketing and branding

	Marketing and Branding	
<p><i>“Multi-agency government-industry partnership committed to strengthening Singapore's position as Asia's leading medical hub, and promoting Singapore as a world-class destination for advanced patient care”</i></p>	Rationale	<ul style="list-style-type: none"> Promote Rwanda as an upcoming medical tourism destination
	Key features	<ul style="list-style-type: none"> Clear brand positioning for Rwanda's offering Clear marketing, sales and promotion strategy Clear messaging promoting new investments and developing relevant capabilities in the industry
	Responsible	MINISANTE, RDB, RMC
	Actions	<ul style="list-style-type: none"> Participation in key industry fairs FAM trips for facilitators and investors Tradeshows in key select destination Partnership with medical tourism facilitators Press articles in key journals

Becoming a medical tourism destination is a journey that should be implemented in three phases over ten years. The key actions described above will be implemented across a period of 10 years. The passed approach ends at year 10 with all major specialties being treated in Rwanda and with over 80% of the staffing being local and having key specialty centers set up in the country.

Illustration 10: Summary Action Plan

Priority Area	Activities	Phase 1 (0 - 3 yrs)			Phase 2 (3 - 7 yrs)				Phase 3 (7 -10 yrs)			Responsible Institutions
		1	2	3	4	5	6	7	8	9	10	
<i>Streamline regulatory environment to facilitate private sector growth</i>	Roll out a medical tourism visa											1. Lead: Rwanda Directorate General of Immigration and Emigration. 2. Support: Ministry of Foreign Affairs, Ministry of Health, RMC, RMA
	Introduce medical tourism single window clearance											1. Lead: Ministry of Health 2. Support: RDB, Rwanda Medical Council, Rwanda Medical Association, Ministry of Trade and Industry
	Revise existing prices and tariffs											RDB
<i>Implement customer care campaign to improve patient services</i>	Roll out a customer care campaign to improve service delivery											1. Lead : Rwanda Medical Council and Rwanda Medical Association 2. Support: Ministry of Health, RDB
	Award customer care champions											
	Roll out a voluntary system of certification for health care establishments											1. Lead : Ministry of Health 2. Support: RDB Services, Rwanda Medical Council, Rwanda Medical Association, COHSASA

Priority Area	Activities	Phase 1 (0 - 3 yrs)			Phase 2 (3 - 7 yrs)				Phase 3 (7 -10 yrs)			Responsible Institutions
		1	2	3	4	5	6	7	8	9	10	
Implement a financing/lease model and PPP subsidies for health sector	Develop financial products suitable for the health care sector											1. Lead: Rwanda Bankers Association 2. Support: Rwanda Medical Association, Rwanda Medical Council, RDB, Ministry of Health
	Lobby for medical tourism to be awarded priority economic sector status for lending at BRD and BDF											RDB
	Carry out detailed feasibility studies for key specialties											Lead: RDB and Investors
	Set up a health care services free zone area											1. Lead: Ministry of Health and RDB 2. Support Ministry of Local Government, Rwanda Medical Council, Rwanda Medical Association
Reinforce specialty skills building through global partnership	Increase number of oncologists, cardiologists and nephrologists in the country by 200% in 10 years											1. Lead: Ministry of Health 2. Support: Ministry of Education, University of Rwanda, , Rwanda Medical Council, Rwanda Medical Association,
	Offer at least 2 international medical schools incentives to set up in Rwanda											1. Lead: RDB 2. Support: Ministry of Education, Ministry of Health, University of Rwanda
	Ensure 20% transfer of knowledge in international hospitals and teaching hospitals											1. Lead: RDB and Ministry of Health 2. Support: Rwanda Medical Council, Rwanda Medical Association

Priority Area	Activities	Phase 1 (0 - 3 yrs)			Phase 2 (3 - 7 yrs)				Phase 3 (7 -10 yrs)			Responsible Institutions
		1	2	3	4	5	6	7	8	9	10	
Facilitate private sector specialty investments	Begin 1 small medical equipment manufacturing											1. Lead : RDB and Ministry of Health 2. Support: Ministry of Education, RRA,
	Attract 2 leading medical tourism institutions to set up in Rwanda											1. Lead: RDB 2. Support: MINAFFET, MINICOM, Ministry of Health
	Attract 1 pharmaceutical company to be set up											1. Lead: RDB 2. Support: MINAFFET, MINICOM, Ministry of Health
	Participate in at least 1 key medical tourism fair/year											1. Lead: (RDB Services and Tourism) 2. Support: Ministry of Health, Rwanda Medical Council, Rwanda Medical Association, RTTA
	Carry out road shows in 5 countries that Rwandair has direct flights to											1. Lead: (RDB Services and Tourism) and Rwandair 2. Support Institutions: Ministry of Health, Rwanda Medical Council, Rwanda Medical Association, RTTA
	Invite at least 5 leading specialists/institutions/investors for a FAM Trip											1. Lead: (RDB Services and Tourism) 2. Support: Ministry of Health, Rwanda Medical Council, Rwanda Medical Association, RTTA

B. Programs and Budget

Illustration 11 : Project Overview and Budget

Priority Area	Activities	Budget	Subtotal
Streamline regulatory environment to facilitate private sector growth	Roll out a medical tourism visa	\$ -	\$ 2,000
	Introduce medical tourism single window clearance	\$ 2,000	
	Revise existing prices and tariffs	\$ -	
Implement customer care campaign to improve patient services	Roll out a customer care campaign to improve service delivery	\$ 50,000	\$ 90,000
	Award customer care champions	\$ 10,000	
	Roll out a voluntary system of certification for health care establishments	\$ 30,000	
Implement a financing/lease model and PPP subsidies for health sector	Lobby for medical tourism to be awarded priority economic sector status for lending at BRD and BDF	\$ -	\$ 825,000
	Develop financial products suitable for the health care sector	\$ 25,000	
	Carry out detailed feasibility studies for key specialties	\$ 150,000	
	Set up a health care services free zone area	\$ 650,000	
Reinforce specialty skills building through global partnership	Increase number of oncologists, cardiologists and nephrologists in the country by 200% in 10 years	\$ 300,000	\$ 400,000
	Offer at least 2 international medical schools incentives to set up in Rwanda	\$ 100,000	
	Ensure 20% transfer of knowledge in international hospitals and teaching hospitals	\$ -	
Facilitate private sector specialty investments	Begin 1 small medical equipment manufacturing	\$ -	\$ 270,000
	Attract 1 leading medical tourism institution to set up in Rwanda	\$ 15,000	
	Attract 1 pharmaceutical company to be set up (either local person or foreigner)	\$ 25,000	
	Participate in at least 1 key medical tourism fair/year	\$ 80,000	
	Carry out road shows in 5 countries that Rwandair has direct flights to	\$ 100,000	
	Invite at least 5 leading specialists/institutions/investors for a FAM Trip	\$ 50,000	
Total			\$1,587,000

C. Anchor Investments

Each of the priority areas will require coordinated efforts by multiple stakeholders in order to succeed. While the next section lays out the details needed to implement the programs and address the priorities above this section focuses in on the anchor investments that will serve as catalysts to the overall strategy.

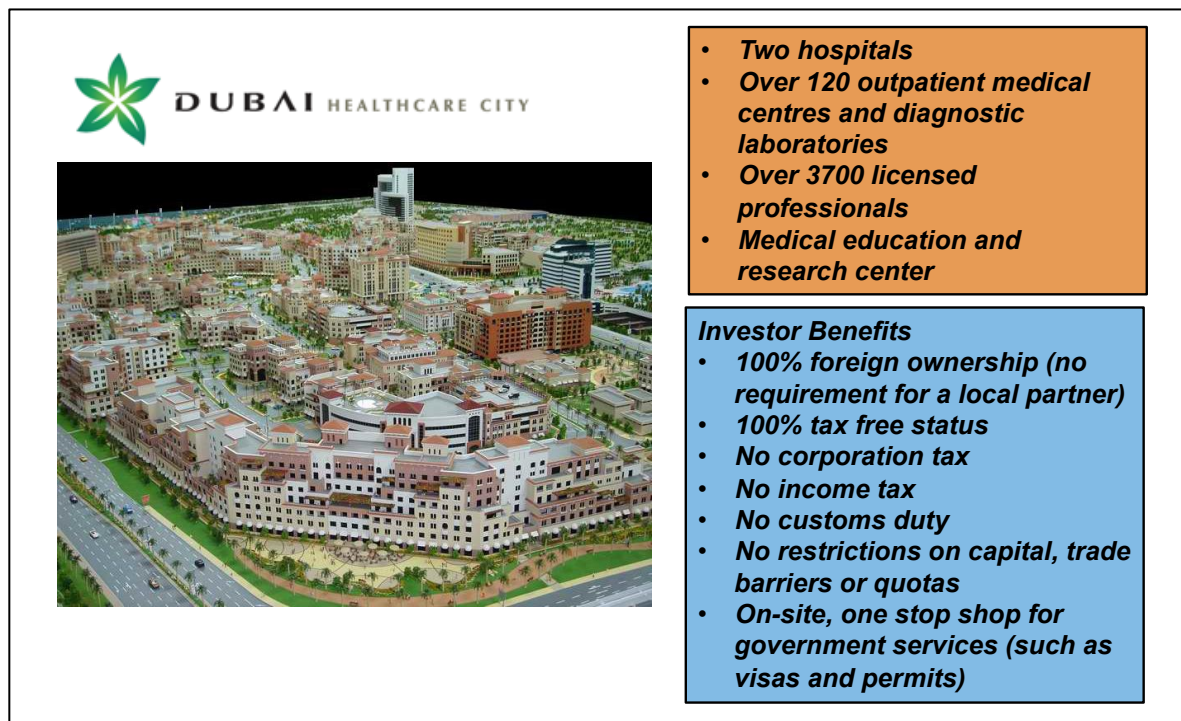
In order to drive these investments, feasibility studies should be the immediate next step. This assignment has provided evidence of specialties that are in demand in the region based on epidemiology statistics. Thorough feasibility studies should be carried out for each of the high in demand specialties to determine fully the costs and profits associated with implementing each of the specialties.

With these specialties vetted it will then be critical that Rwanda build a “pipeline” of key medical specialty skills and capacity. This can be achieved through increasing the number of students studying medicine, and the number of doctors specializing in key areas. Investments will be needed to create incentives for local and international medical schools to ensure that the country has sufficient quality and quantity of health care professionals.

Feasibility studies will also help drive outreach to potential private investors. This data will provide the material needed to help make the business case that Rwanda is the next medical tourist destination of choice. This will then be used to conduct roadshows and other campaigns aimed at enticing private investors. An important part of making this case will be providing the right incentives to investors.

A health care special economic zone for medical services will be a key incentive and investment made to ensure the medical tourism strategy takes off. A health care free zone will ensure that all services are in one area thus facilitating the patient care as well as ensuring that the medical tourism cluster benefits from economies of scale. A health care free zone will also make it easy to implement key tax incentives.

Illustration 12 : Dubai Health Care City



II. The Global Medical Tourism Opportunity

Medical Tourism has become a major economic driver and investment opportunity creator for countries in the past decade. Medical tourism, which is simply the act of people making health choices and accessing health treatments across borders begins and ends with excellent specialist health care. In essence, successful medical tourism is a by-product of a strong health care system.

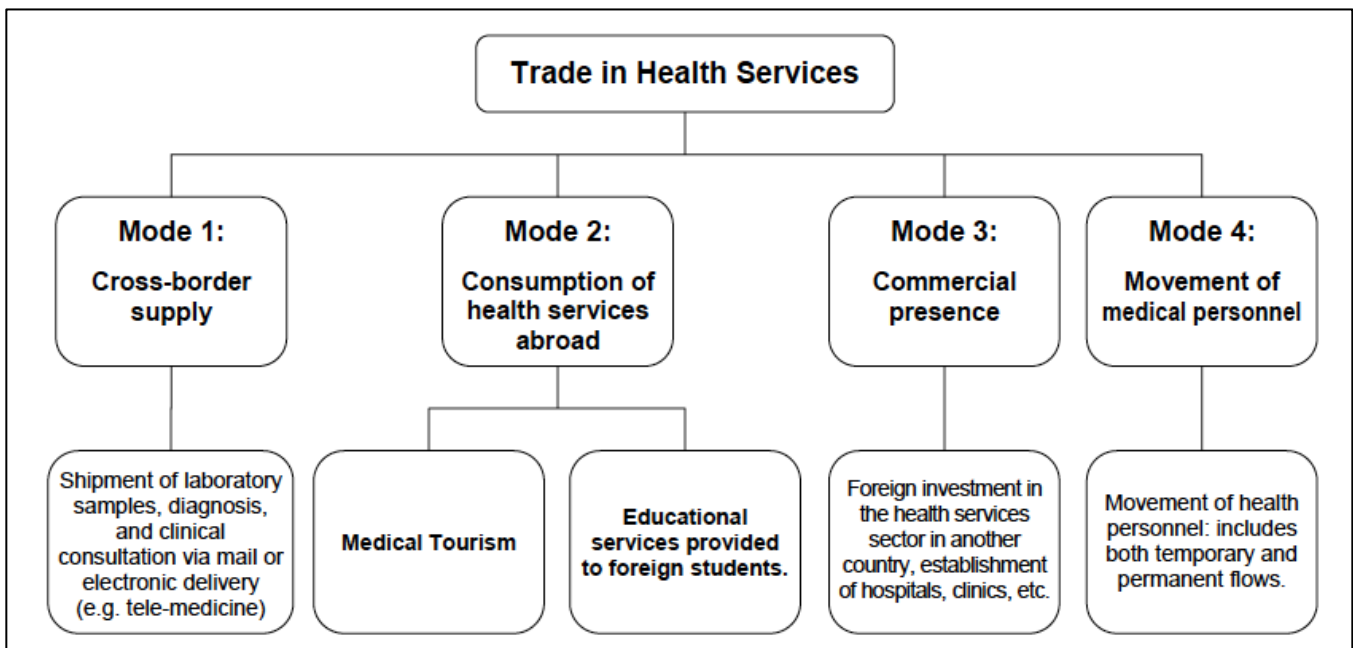
This section will summarize the global medical tourism opportunity. It will define key terms in the international medical tourism industry, explain trends in the industry, highlight the economic impact of the industry and lastly focus on key learnings from relevant case studies of leading regional and international medical tourism destinations.

A. Defining Medical Tourism

Medical tourism involves individuals acting as consumers and making choices regarding health needs, how they can be treated and appropriate providers^{ix}. There are three forms of medical tourism **invasive, diagnostic and lifestyle.** Invasive treatments involve high-tech procedures performed by a specialist such as cardiology and cardiac surgeries, cancer treatments, orthopaedics, eye surgeries, and dental work; diagnostic procedures encompass several types of tests such as blood screenings and electrocardiograms; and lifestyle includes wellness or recuperation treatments^x.

Medical tourism is both an economic and social activity and should generate both economic and social returns. Health tourism was first categorized as a commercial activity by the International Union of Travel Officials in 1973^{xi}. The World Trade Organization recognizes medical tourism as a form of international trade in services. A country that offers medical tourism services to foreign patients, the “destination country” is therefore the “exporter” while the patient’s “home country” is the “importer” of services.

Illustration 13 : Modes of Supply of Trade in Health Services^{xii}



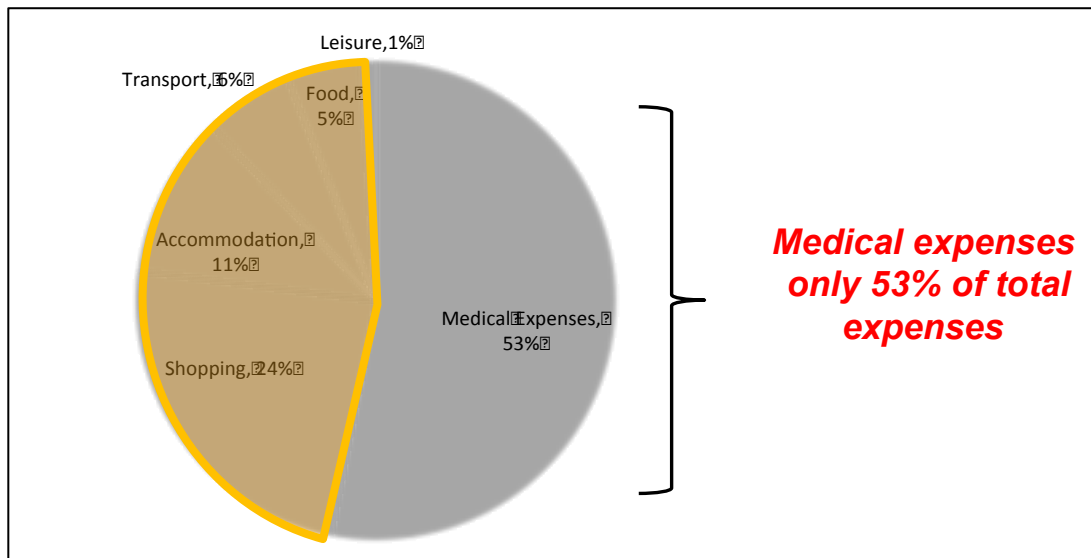
B. Trends in Medical Tourism

The medical tourism industry is a high spend, high volumes growing market worth billions of dollars. The market is estimated to be growing at a rate of 15-25% per annum^{xiii}. Some estimates place the industry at between \$24-40 billion, while others between \$60 and \$100 billion. It is estimated that there are eight million cross border patients worldwide. Medical tourism spend is estimated at between \$3000 and \$5000 per visit but this figure varies according to different regions and treatments.^{xiv}

Medical tourism is largely becoming regional and about providing niche services to specific segments. This is largely attributed to demands for comparable or even better quality health care at more affordable costs. Shorter waiting periods and accessing treatments that are not available in home countries also contribute to the growth of medical tourism. Enabling infrastructure such as affordable and accessible travel and readily accessible information over the Internet has further catapulted these changes.

Medical tourism has generated significant economic returns to a number of countries. India's medical tourism industry was predicted to be worth \$2 billion in 2012, which was between 6-7% of their GDP^{xv}. Tunisia's medical tourism industry on the other hand was valued at \$223 million in 2007^{xvi} while South Africa generated an estimated \$184 million in revenues in 2010. Medical tourism in addition generates income for other non-medical sectors. In South Africa, medical expenses made up only 53% of total tourists' expenses^{xvii}.

Illustration 14: Total Spend of Nigerian Medical Tourists in South Africa^{xviii}



Medical tourism is also associated with upgrades in medical knowledge, infrastructure and technological capabilities in home countries. Singapore has strongly argued that involvement in medical tourism has enabled them to provide a wider range of health services to their local population by using the income generated from medical tourism to invest in the health care sector. Cuba also regularly reinvests income from foreign patients into their national health system therefore improving the level of health care accorded to its citizens^{xix}.

C. Case Studies of Select Medical Tourism Destinations

Successful medical tourism destinations prove that medical tourism begins and ends with excellent specialist health care. These countries have made very important strategic decisions to invest in upgrading the entire health care system so as to harness the potential of medical tourism. Indeed, these countries prove that medical tourism is a by-product of a functioning and solid health care sector. Rwanda should accelerate its medical tourism development efforts by learning and building on the experiences of these destinations.

India's medical tourism sector is grounded in significant physical and human resources infrastructure guided by a clear choice of specialties and procedures to "own". India currently has 381 medical schools and graduates about 50,000 medical professionals in a year. In addition, India has 16 JCI accredited hospitals and a further 63 NABH accredited hospitals. India's industry is supported by the third largest pharmaceutical sector in the world and 700 medical device manufacturers registered with the association of Indian Medical Device Industry.

India has built a reputation of destination that provides huge cost saving benefits to patients. India's costs are for example on average 20% of those in the US^{xx}. Another study estimated that the UK's health system could save over 200 million pounds if it took advantage of medical procedure cost savings in India. This trend is not only limited to developed countries; Kenyans also travel to India for surgeries because they are cheaper there even after including travel and accommodation costs.

Illustration 15: Cost Savings for Medical Procedures; UK vs India^{xxi}

Procedure	Cost UK (£) ^a	Cost procedure India (£) ^b	Cost of flight ^c	Total cost India	Cost saved per operation (£)	Waiting list ^d	Total saved (£)
Coronary artery bypass graft (CABG)	8,631	3,413	500	3,913	4,718	97	457,646
Coronary angioplasty	2,269	2,363	500	2,863	-594	25,241	Not worth it
Total hip replacement	8,811	3,413	500	3,913	4,898	28,800	141,062,400
Total knee replacement	6,377	5,145	500	5,645	732	53,911	39,462,852
Femoral hernia repair	1,595	819	500	1,319	276	1,686	465,336
Inguinal hernia repair	1,595	717	500	1,217	378	65,064	24,594,192
Total							206,042,426

^aNHS reference costs 2007-2008
^bConversion used £1=\$1.66, rounded to the nearest pound
^cFrom British Airways, two week in advance of flying (i.e. 30th of September)
^dObtained from Hospital Episode Statistics, Main procedures and operations 2007-2008

India made a deliberate choice to become a medical tourism destination and implemented fiscal incentives to encourage the growth of the industry. Indeed, India's National Health Policy drafted in 2002, states that medical tourism should be "deemed export" and therefore awarded it fiscal incentives including prime land at subsidized rates, tax concessions and lower import duties, accelerated depreciation for equipment (from 25 to 40 percent) for life-saving medical equipment and low interest loans from public sector banks^{xxii}.

The Government of India allotted prime land to key medical tourism actors at subsidized rates or even for free. Apollo Hospitals was for example given 15 acres of prime land worth an estimated \$2.5 million given by the Delhi government free of cost. The condition that was given to Apollo Hospitals is that they would treat 20% of their local patients for free. Eye clinics and hospitals have also been given prime land in Hyderabad. In addition, India's immigration office introduced medical visas for patients that are valid for a year and are also issued to the patient's companion^{xxiii}.

Innovative and strong private sector players champion India’s health care sector. The Apollo Hospitals Group is arguably the pioneer of integrated healthcare delivery in India. Apollo’s passion is to lead in the development of unique centers of excellence across medical disciplines. Apollo started in 1983 as a 150 bed hospital but has now grown into 8500 beds across 50 hospitals in India and overseas in Sri Lanka, Dubai, Ghana, Saudia Arabia Bangladesh, Nigeria, Mauritius, Qatar, Oman and Kuwait^{xxiv}.

India provides an effective case study on how a strong private sector can establish a reputable medical tourism industry. With the mentioned government support, India’s medical tourism has been able to take off greatly to become a medical tourism hub to reckon with. Rwanda should in the same way enable promising and strong private sector entrepreneurs to thrive thereby providing excellent services to both local and international patients.

Illustration 16: India’s medical tourism industry summary

Receipts	<ul style="list-style-type: none"> Estimated at \$2.4 Billion Attracting 1.1 million health tourists, up from 150,000 in 2002
Economic Contribution	<ul style="list-style-type: none"> Approximately 6-7% to the overall GDP growth Increase employment by at least 2.5 million by 2012
Infrastructure	<ul style="list-style-type: none"> 381 medical schools 840,130 doctors Medical graduates – 49118 / year 16 Hospitals with JCI accreditation 63 hospitals with NABH accreditation (applied 395) 3rd largest pharmaceutical sector in the world (Rev 21.04Billion USD) 700 Medical device manufacturers registered with association of Indian medical device industry
Specialties	<ul style="list-style-type: none"> Cardiac treatment, Orthopedics (including joint replacement), Nephrology, Neuro surgery and Cancer

South Africa’s medical tourism industry is grounded on a relatively well-organized private sector with strong independent industry bodies. It is often cited as the leading medical tourism destination in Africa. South Africa currently boasts of 8 medical schools, 162,630 health professionals registered with the Health Professionals Council and 3173 medical graduates per year^{xxv}. In addition, South Africa has over 70 COHSASA accredited hospitals to date^{xxvi}.

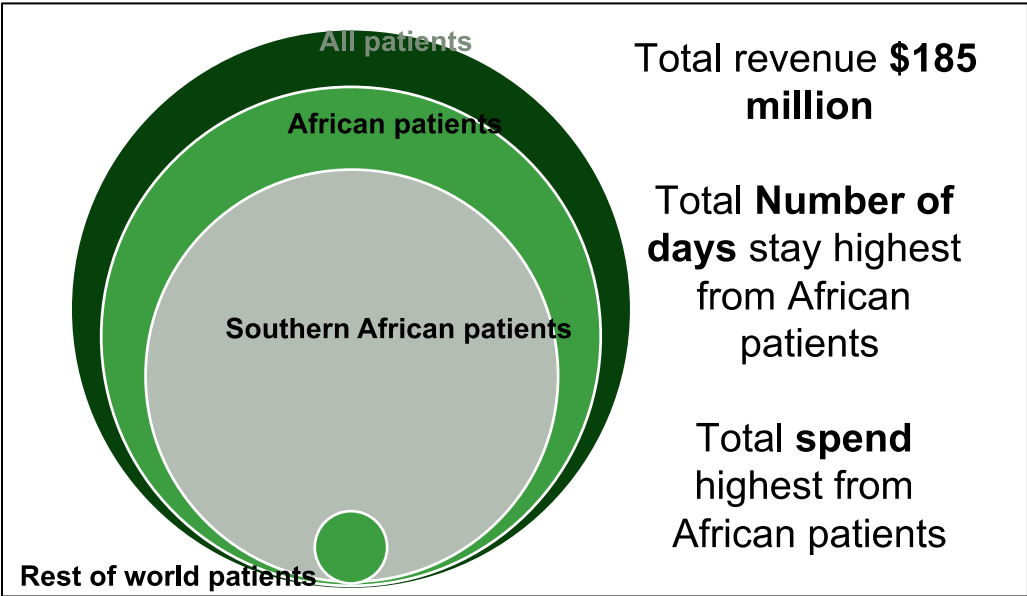
South Africa’s medical tourism is largely regional. Of the 400,000 medical migrants that visited South Africa in 2010, over 85% were from Africa^{xxvii}. These medical migrants from African countries (especially West and East Africa) spent more time in the country (12 days) compared to those from Europe (8 days). In addition, African medical tourists spent more days in the country than business or leisure tourists. Finally, these medical tourists spent more of their expenditure (47%) on other expenses other than medical care.

South Africa’s bilateral health agreements with eighteen African countries ensure that it profitably provides regional health care services. Bilateral agreements can be seen as an effort to formalise and manage regional movements and obtain payment from governments for the cost of treating non-residents. Some SADC

governments have set up special funding mechanisms (such as the Phalala Fund in Swaziland) to pay the medical costs of patients who go to South Africa for approved treatment. More details of bilateral agreements can be found in appendix 2.

The private sector in South Africa continues to inject large investments to further cash in on the opportunities of medical tourism. A private developer is setting up a multi billion-rand (\$250 M – \$450M) health and wellness centre that is aimed at being a one-stop shop for medical tourism and health. The centre will target patients and their families “for support – and for a holiday – while they undergo their operations and treatment”. The centre will include an oncology unit as well as a rehabilitation centre for addiction, depression, stress and eating disorders. In addition, there will be a cooking school where patients can learn about healthy eating^{xxviii}.

Illustration 17: South Africa’s medical tourism numbers^{xxix}



South Africa does not compete on price but rather on offering an experience that combines medical procedures, scenery and safaris^{xxx}. Health providers sell the fact that the country’s wonders can have a positive impact on the recovery process for their patients while allowing for postoperative relaxation. Cape Town is especially portrayed “as the ideal location to combine cosmetic surgery with twenty-four hour pampering”. In addition to selling based on tourism attractions, South Africa seeks to also compete on quality of procedures.

16 South African based medical tourism facilitators market the country’s medical tourism offering. They comprise of travel agencies and provider groups who act as intermediaries for international patients. A list of these facilitators is found in appendix 3. Some private hospitals such as Netcare International use external facilitators but also have an in-house Central Referral Office complete with a foreign patient liaison office and agreements with local guesthouses.

South Africa’s experience proves that indeed medical tourism is regional as illustrated in figure 5. This provides Rwanda with a starting point of which markets to target. In addition, South Africa also points out to the fact that a strong private sector is key for a destination looking to establish itself as a medical tourism destination. The medical tourism facilitators also provide valuable lessons on how to market and sell medical tourism destinations.

Illustration 18: South Africa’s medical tourism industry summary

Receipts	<ul style="list-style-type: none">• Estimated at \$184M• Attracted over 400,000 health tourists in 2010
Infrastructure	<ul style="list-style-type: none">• 8 medical schools• 162, 630 health professionals registered with the Health Professionals Council• 3173 graduates per year on average• Over 70 COHSASA accredited hospitals• Has bilateral agreements with 18 Sub-Saharan African countries• 16 medical facilitators made up of travel agencies and provider groups act as intermediaries for international patients.• A \$400 million “one-stop shop for medical tourism and health” is currently being constructed.
Specialties	<ul style="list-style-type: none">• Dental surgery and tooth implants, eye surgery and laser treatments, and fertility treatments

Tunisia is often cited as the second most competitive medical tourism destination in Africa after South Africa. Globally, Tunisia is also the second world destination for thalassotherapy after France. Medical tourism was estimated to contribute 0.43% of GDP in 2007 and 0.9% of the country’s total exports. In addition, health services resulted in an estimated 10,500 jobs; 5,000 in the health sector and the remaining 5,500 from the tourism sector^{xxxix}. Medical tourism in Tunisia is largely regional with almost 80% of tourists coming from Libya and the rest from Europe, Algeria and some francophone African countries^{xxxix}.

Tunisia’s medical tourism growth has been the result of a conscious government effort to promote the industry. Evidence exists to show a conscious effort by the government to promote medical tourism. Indeed, the country’s Second Generation of Reforms to Boost Growth and Employment identified medical tourism as an emerging niche market. The vision of the plan was to make Tunisia a “major health services exporting destination by 2016”^{xxxix}. Overall, health and related services are considered to be a key engine for country’s economic and social development^{xxxix}.

Several fiscal incentives have been implemented in Tunisia to facilitate the growth of the medical tourism industry. Businesses in the health care sector qualify for a deduction of reinvested profits up to 50% of net profits subject to corporate tax, reduced rate of 10% on income and profits and VAT suspension for imported capital goods having no similar locally-made counterparts^{xxxv}.

Tunisia has entered into agreements with Libya as well as Mauritanian organizations to boost their medical tourism industry. In 2007, the Libyan state bore the costs of some treatments that were obtained in Tunisia. This acted as an additional incentive for Libyan patients to travel to Tunisia to receive treatment. In addition, Tunisia entered into agreements with Mauritanian and other neighbouring countries’ organizations to supply medical treatments to their employees^{xxxvi}.

Illustration 19: Tunisia's medical tourism industry summary

Receipts	<ul style="list-style-type: none"> • Generated approximately \$223M in 2007 • Attracted 100,000 medical tourists in 2007
Economic Contribution	<ul style="list-style-type: none"> • Approximately 0.4% to the overall GDP growth (2008 est) • Increase employment by at least 10,500 in 2008
Infrastructure	<ul style="list-style-type: none"> • 4 medical faculties, 3 schools of Science and Technology and 19 nursing schools • 2800 private sector bed capacity in 2009 with plan to double by 2014 • 12 physicians per 10,000 people (2009 est.) • 4 ISO and OHSAS hospitals
Specialties	<ul style="list-style-type: none"> • Thalassotherapy, Plastic surgery

Singapore's medical tourism industry is grounded in strong institutions that strengthen and effectively promote it as a leading medical tourism destination. SingaporeMedicine is a multi-agency government partnership whose main mission is to strengthen and promote medical tourism in the country. In addition, the Singapore Tourism Board has a specific department, the Health Care Services Department whose main mission is to lead in the development of innovative healthcare and tourism packages.

Illustration 20: The Five Components of the Singaporemedicine Initiative^{xxxvii}

Institution	Role
Ministry of Health	Provides overall leadership. As regulator and policy maker, it is also responsible for the long-term development of the healthcare industry and manpower capabilities.
Economic Development Board	Manages the biomedical/life sciences cluster. It also promotes inbound investment not only of clinical service providers but also the other facets of the medical hub like the pharmaceutical and medical device industries.
International Enterprise Singapore	Assists local companies to internationalize and to "help SMEs become MNCs", so to speak. IE Singapore promotes outbound investment by local healthcare players internationally. Through such projects, Singapore companies have been setting up healthcare facilities in countries like Vietnam, China and India
Singapore Tourism Board	Facilitates the inbound travel of patients and therefore takes charge of international branding and marketing, and the development of associated people-oriented services like local transport, accommodation, and international patient liaison services.

	STB also helps the industry collaborate and cooperate through platforms like the SingaporeMedicine Industry Forum and the SingaporeMedicine Industry Roundtable. STB also encourages medical conferences in Singapore.
Medical Travel Industry (healthcare providers, medical travel agencies)	Hospitals and healthcare networks Serve the patients and the medical travel agencies facilitate their visits to Singapore and provide both ground-handling as well as international marketing for their local healthcare partners

Illustration 21: The Singaporemedicine approach^{xxxviii}

Activity	Description
Brand Development	For patients to decide to visit Singapore for healthcare, they must first be informed and then persuaded that the healthcare services in Singapore meet their needs. This is done through public relations work with the media and through appropriate advertising and promotions.
Channel Development	After patients decide that they want to travel to Singapore for healthcare, they may need assistance. Medical travel agencies that are similar to other travel agencies except that they specialize in patients' travel do this. Doctors are also often channels in their own right.
Product Development	Singapore's primary driver for medical travel is to obtain sufficient patient volumes. The main focus for SingaporeMedicine is developing high-tech and high-complexity services. These include cancer treatment, cardiac services, neurosurgery and orthopaedic surgery.
Industry Development	The international patient is not seeking just excellent healthcare but a total experience. The industry has to continually learn how to better serve their cross-cultural clients. SingaporeMedicine operates and/or supports several platforms for such local knowledge sharing, including conferences focused on medical travel. STB also supported the establishment of the International Medical Travel Association, the world's first international society for medical travel which seeks to protect the interests of the medical traveller
Outbound Services	Beyond seeking to bring patients to Singapore, there is the larger effort to internationalize Singapore's clinical services, consultancy and medical technology. Besides joint participation in international exhibitions, organizations in Singapore (including those beyond the SingaporeMedicine initiative) also cooperate in joint trade missions and events.

Singapore has made significant investments in building the necessary infrastructure to grow the industry. It boasts of 13 JCI accredited hospitals and additional 11 ISO certified hospitals^{xxxix}. In addition, Singapore has over 6,500 doctors, 1,200 dentists, 19,000 nurses and midwives and 1,200 pharmacists^{xl}. Singapore furthermore boasts of the presence of leading biopharmaceutical companies such as Glaxo Smithkline, Novartis and Abbott among others.

Singapore’s high-end medical tourism destination was built off the Government’s investment and promotion of the country as a centre for biomedical and biotechnological activities. Indeed, Singapore boasts of a \$500 million Biopolis that positions Singapore as a leader in biomedical services research and innovation. This Biopolis has made ground breaking innovations in the field of organ transplants as well as cancer treatments. In addition, Singapore has legislated some research such as stem cell transplants that are outlawed in some countries.

Illustration 22: Singapore’s medical tourism industry summary

Receipts	<ul style="list-style-type: none"> Attracts over 400,000 medical tourists annually Targeted over \$3 billion medical tourism revenues by 2012
Infrastructure	<ul style="list-style-type: none"> Ranked 6th best health care system in the world by WHO Over 6,500 doctors, 1,200 dentists, 19,000 nurses and midwives, and 1,200 pharmacists 13 Hospitals with JCI accreditation and 11 hospitals with ISO certification SingaporeMedicine is a multi-agency government-industry partnership committed to strengthening and promoting medical tourism in Singapore. Healthcare Services Department at the Singapore Tourism Board facilitates the development of innovative healthcare-cum-leisure. 9 dedicated health care travel agents Leading biopharmaceutical companies including Abbott, GlaxoSmithKline, Lonza, Merck & Co, Novartis, Pfizer, Sanofi-Aventis and Schering-Plough. \$500 million Biopolis positions Singapore as a leader in biomedical services research and innovation.
Specialties	<ul style="list-style-type: none"> Nephrology, Oncology, Stem Cell Transplants, Cardiology, Dentistry, Neurology, Ophthalmology, Orthopedics among others

Singapore provides valuable lessons on how to coordinate the medical tourism industry. Singaporemedicine indeed illustrates an effective example of how to bring different government agencies and the private sector to enhance the medical tourism industry. It shows how different strengths and mandates of different organizations can be leveraged to ensure a successful medical tourism industry.

Thailand is often cited as the largest exporter of health services in the ASEAN region and has become a medical tourism hub in Asia due to its strategic location. Thailand’s efforts to become a medical tourism destination date back to the 1990’s during the Asian economic crisis which generated a fall in domestic private patients and led to spare capacity in the private medical sector^{xli}.

Thailand has invested heavily in promoting quality of services through a thorough accreditation system. Indeed, the Bumrungrad hospital in Bangkok was the first hospital in Asia to receive international accreditation from the Joint Commission on Accreditation of Healthcare Organizations (JCAHO)^{xlii}. Thailand currently has over 34 JCI accredited organizations^{xliii}. In addition, it has 350 hospitals that have achieved Hospital Accreditation (HA), awarded by the Ministry of Public Health.

Thailand is mostly known for the treatment of infectious diseases, bone related ailments and cosmetic and reconstructive surgery. Conservative estimates on the number of medical travelers to Thailand puts it at between 850,000 to 700,000 in 2012 ^{xliv}. Majority of the medical travelers were from Japan, ASEAN and the US.

A study conducted in 2012 estimated that health and wellness tourism generated about US\$ 997 million^{xiv}. The medical industry is estimated to grow at a rate of 16% per annum.

Illustration 23: Thailand's medical tourism industry summary

Receipts	<ul style="list-style-type: none"> • Estimated at \$1.5 Billion • Attracting an average of 700,000 medical tourists in 2013. Industry growing at 16% per annum
Economic Contribution	<ul style="list-style-type: none"> • Approximately 0.4% to the overall GDP growth • Increase employment by at least 2.5 million by 2012
Infrastructure	<ul style="list-style-type: none"> • 22 medical schools • 43,408 doctors • Medical graduates – 2,500 / year • Over 34 JCI accredited organizations • More than 350 Thai hospitals have achieved Hospital Accreditation (HA), awarded by the Ministry of Public Health • More than 500 physicians are American board certified • Thailand's larger private hospitals offer translator services in many languages, The International Medical Center in Bangkok for example offer 26 languages. ^[9]
Specialties	<ul style="list-style-type: none"> • infectious diseases, bone related ailments and cosmetic and reconstructive surgery

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III. The Rwanda Health Care Services Pyramid

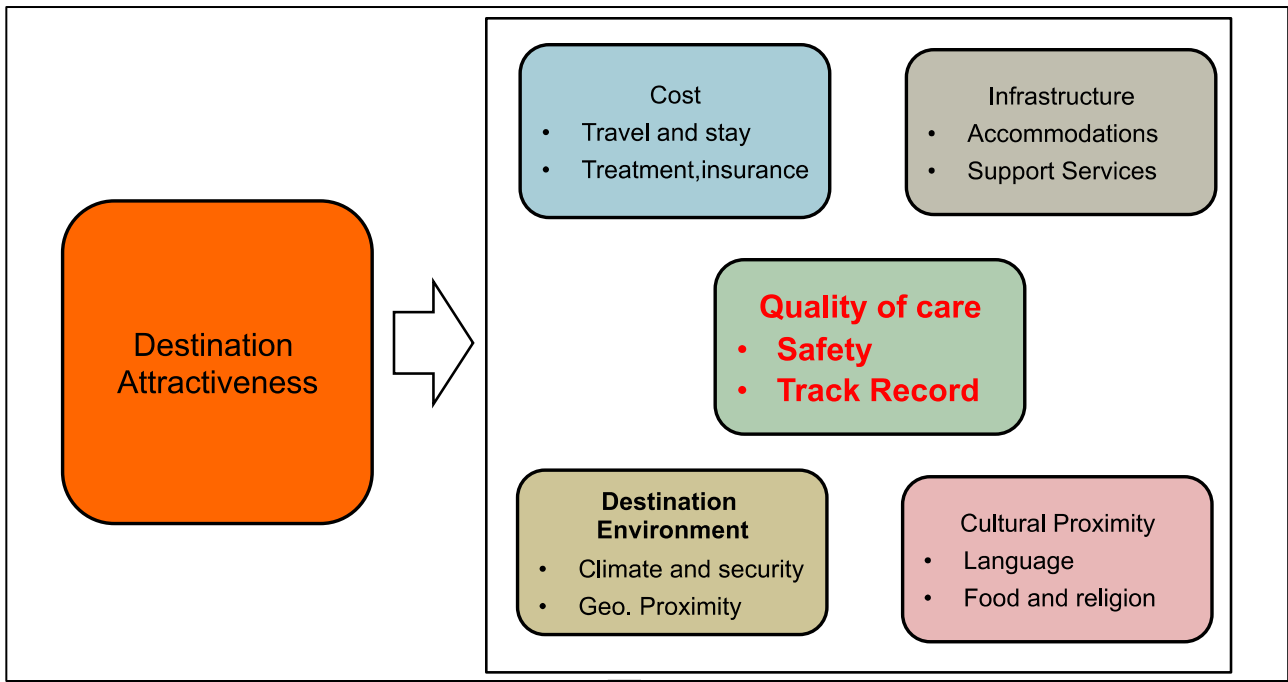
A patients’ decision to select a medical tourism destination is influenced by a set of complex inter related factors. Among these factors include the quality and cost of care, available infrastructure, cultural proximity and other factors such security. These factors provide a good starting point to assess Rwanda’s destination attractiveness therefore pointing to areas for improvement to tap into the medical tourism opportunity.

This section will firstly explain key factors that determine a destination’s medical tourism attractiveness. It will then assess how Rwanda performs on these key factors that determine medical tourism destination attractiveness. Third, the section will then analyze ongoing initiatives that Rwanda’s medical tourism efforts could leverage. Finally, a summary of Rwanda’s health care industry using the SWOT analysis will be presented.

A. Determinants of medical tourism destination attractiveness

The choice of a medical tourism destination is influenced by a set of complex inter related factors. A patient’s decision of a medical tourism destination is not only influenced by comparisons of cost and quality. Understanding these complex factors will enable Rwanda to identify its competitive advantage and consequently create a focused, winning and actionable medical tourism strategy.

Illustration 24: A Model of Medical Tourism Destination Attractiveness^{xlvi}



Quality of health care is a key determinant of medical tourism destination attractiveness. Quality factors are often about balancing potential risk against rewards. Patients need to have some form of proof either in the form of clinical outcome data records or patients’ testimonials to increase their faith about a positive outcome. Presence of standards and certifications could improve a country’s quality score.

Cost considerations are not only limited to the cost of treatment. They rather include all costs associated with getting to the treatment including cost of travel, accommodation and meals. A low cost of procedure may for example be offset by a high cost of airline travel and accommodation thereby making the total treatment cost more expensive. It is therefore paramount to look at the entire medical tourism value chain and provide cost saving opportunities for the patients.

Cultural proximity factors contribute to an overall positive experience for a medical tourism traveler. Given the level of potential risk involved in medical tourism procedures, any factor that makes a traveler more comfortable is always welcome. Common language is at the heart of good communication between the patient and doctor. Religion is often a key part of patient's culture and therefore any similarity increases level of comfort.

Destination environment factors such, as safety and security are a key consideration for patients. A patient's primary concern is good health and not trying to figure out if his life is in danger due to external factors such as political instability, terror attacks, theft and other social ills. A country that can guarantee safety and security for the patient will definitely be considered if it has good quality care and all the necessary infrastructure outlined in the previous paragraphs.

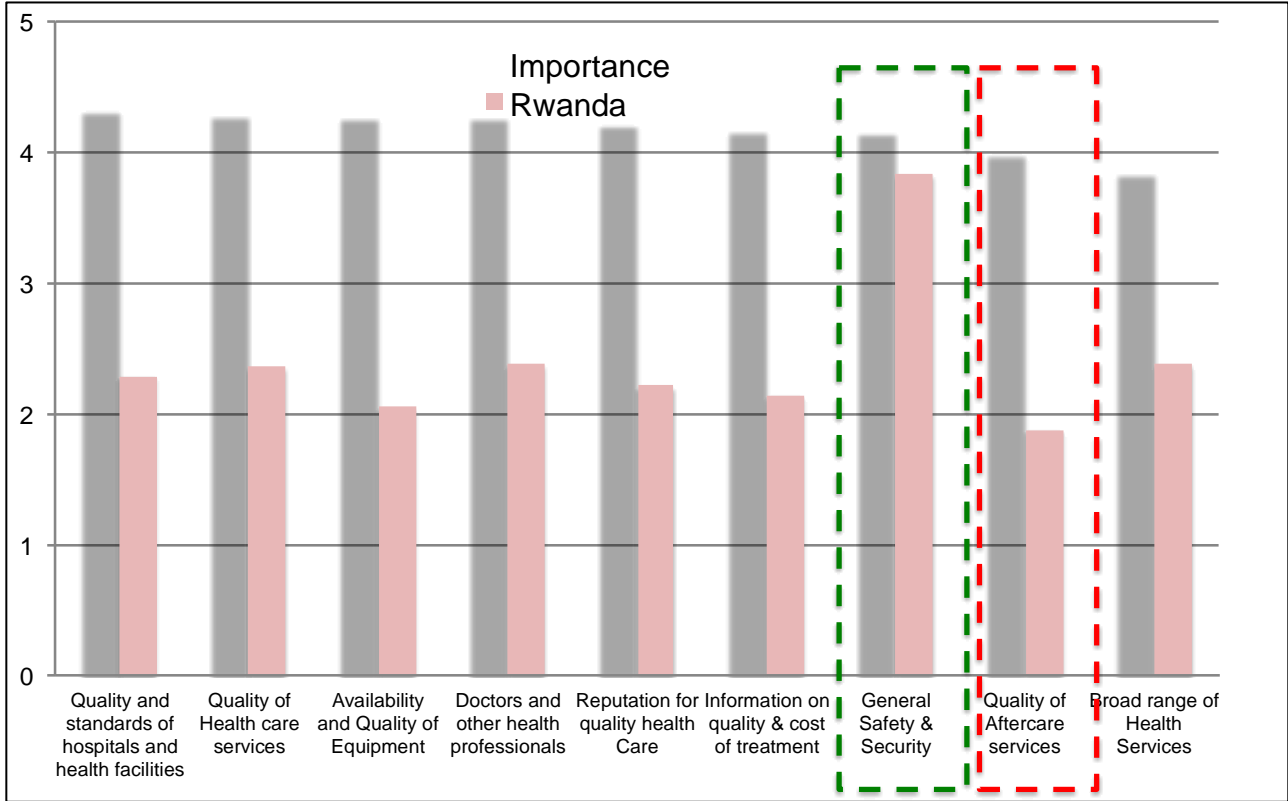
B. Rwanda's medical tourism destination attractiveness

A survey administered to over 80 local and international doctors, direct interviews and a stakeholder meeting provided useful insights into Rwanda's potential as a medical tourism destination. Of the 81 surveyed doctors, approximately 38% were foreign doctors therefore providing an external assessment of Rwanda. The stakeholder meeting also brought together both local and foreign doctors hence providing a balanced view of the perception of Rwanda's attractiveness as a medical tourism destination.

Rwanda scores highest on general safety and security (3.83/5), cost of treatment (3.14/5) and travel cost and accessibility (3.05/5). Given that medical tourism is largely regional, these factors are indeed great strengths that Rwanda can leverage. Rwanda's neighbors are currently marred by poor safety and security therefore providing a great advantage for the country to exploit. Convenient travel cost and accessibility has the potential to further reinforce Rwanda's position as a regional medical tourism destination.

Rwanda scores lowest on quality of after care services (1.88/5), availability and quality of equipment (2.05/5) and information on quality and cost of treatment (2.14/5). Quality of after care services is extremely important, as it is a crucial component of the overall quality of treatment and the experience of the patient. Word of mouth is an important factor for the growth of the industry and poor after care services as well as lack of information on the quality and cost of treatment will more likely than not result in negative word of mouth.

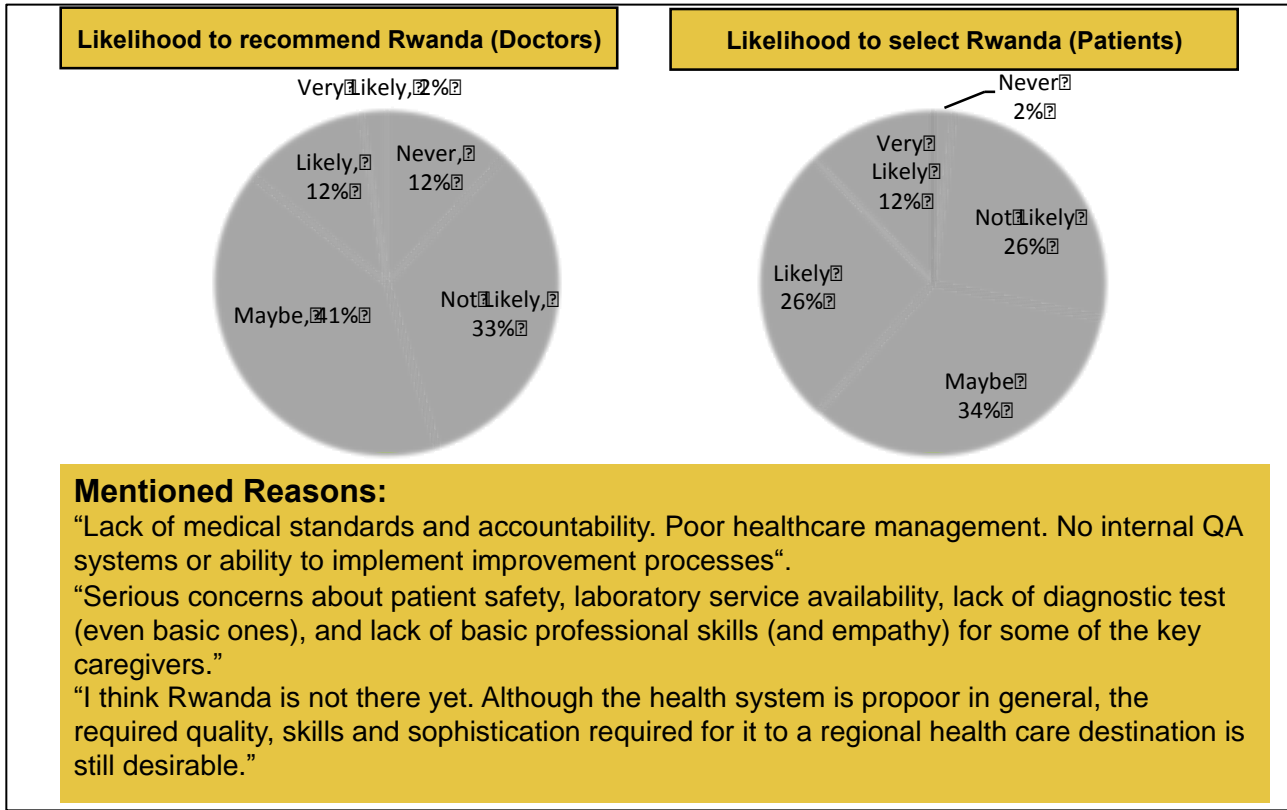
Illustration 25: Rwanda’s scores on destination attractiveness factors (n=81)^{xlvii}



More patients (45%) than doctors (18%) were likely to select/recommend Rwanda as a medical tourism destination. This is mostly because patients are more concerned about receiving comparably better health care than they would in their respective countries while doctors critically analyze the health care system based on availability of infrastructure and technology to provide best quality healthcare. The answers to this question provide insight as to the improvements that can be made in order to increase their likelihood to select/recommend the country as a medical tourism destination.

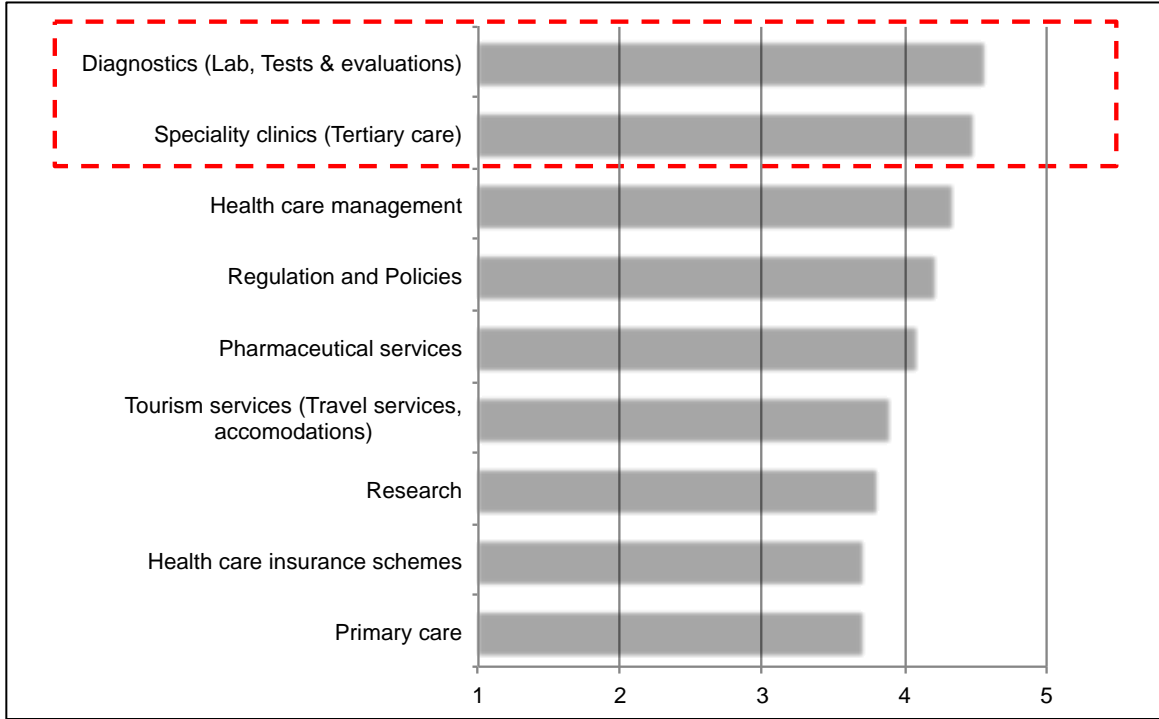
Poor infrastructure, lack of doctors and poor service delivery are the top reasons for being unsure of selecting/recommending the country. These are all factors that can be improved upon with a strategic set of focused investments. Specifically, the survey points to intensifying training on service delivery, investing in more laboratory and diagnostic equipment as well increasing number of trained specialist doctors.

Illustration 26: Likelihood to recommend/select Rwanda as a medical tourism destination – From Doctors’ perspective (n=81)^{xlviii}



Rwanda would need to invest in diagnostic equipment and in establishing specialty clinics to become a medical tourism destination. In addition, respondents felt that Rwanda should also upgrade its health care management system. Perhaps given the strides that Rwanda has already made in developing its primary care industry, respondents felt that this should be the least area of priority currently

Illustration 27: Areas of prioritization in order to establish a country as a medical tourism destination (n=81)^{xlix}



Medical tariffs strongly limit the competitiveness of Rwanda’s private sector. The majority of the participants felt that medical prices were set in an arbitrary manner, without taking into account the doctors’ input. These low prices were seen as a deterrent to operating profitable private practices. The good news is that a study focusing on the tariffs has been commissioned to better address the issue.

High cost of financing keeps the private sector from expanding their practices and investing in the much-needed equipment. One workshop particularly highlighted the cash flow challenges faced while attempting to secure financing for a participant’s clinic. Another major issue that was brought up was the lack of predictability in the private health sector that stems from inconsistent and unclear regulations.

Insufficient collaboration and coordination among the private health care practitioners further limits Rwanda’s potential to tap into medical tourism. The stakeholder highlighted an example of a patient who could not get dental health care over the weekend as most dentists were closed. One recommendation that she offered to address this was to have a schedule with doctors alternating work on different weekends just as the pharmacists do.

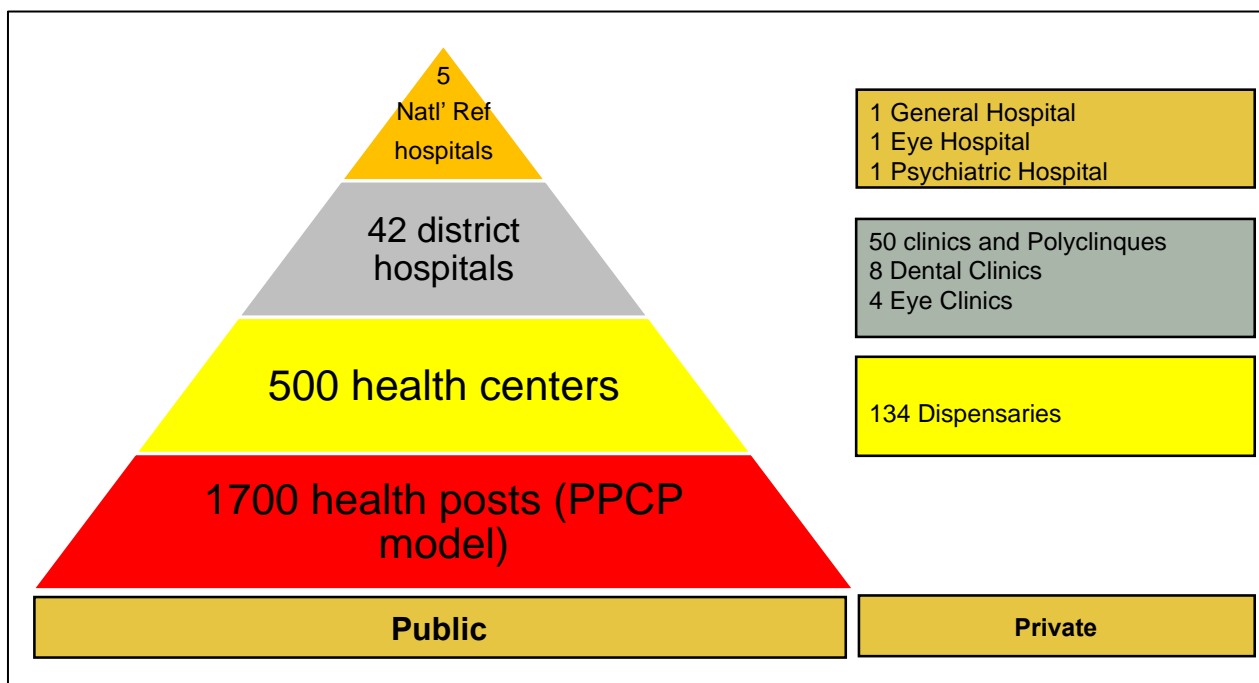
C. Current State of Rwanda's Health Care Sector

Rwanda currently has strengths that can be exploited as well as weaknesses that need to be corrected for a solid medical tourism product to be developed. Rwanda is one of the few countries in the region that speak English, French and Swahili. This increases the number of potential medical tourism customers from both the Francophone and Anglophone speaking countries.

Rwanda has continued to be recognized in health care circles for its success in offering universal access to healthcare. With over 90% of Rwandans insured by the mutuelle de santé, Rwanda has ensured that her citizens have access to basic health care. Rwanda has also been successful in reducing infant mortality rates by over 60%, meeting the MDG four, which calls for the reduction of under five mortality rate by two-thirds.

Rwanda currently operates a well functioning decentralized health care public service system. The system is made up of 1700 health posts, 500 health centres, 42 district hospitals and 5 national referral hospitals¹. The public health sector is further reinforced by the private sector, which comprises of 2 general hospitals, 1 eye hospital, 1 eye clinic, 50 clinics and polycliniques, 8 dental clinics, 4 eye clinics and 134 dispensaries.

Illustration 28: *Current health care infrastructure in Rwanda*



Despite the achievements of Rwanda's health care services, key challenges persist. In comparison to regional competitors Rwanda has the least number of hospitals with any form of certification. The figure below summarizes how Rwanda stacks up against select regional competitors on a number of destination attractiveness factors.

Illustration 29: How Rwanda stacks up against regional competitors

	Kenya	South Africa	Tunisia	Rwanda
Destination environment	Many tourist attractions, close proximity to the east Africa, desirable climate	Many tourist attractions, far from East and Central Africa, climate is less moderate	Some tourist attractions, climate is less moderate	Tourist destination, desirable climate, close proximity to the east and central African region, moderate climate, reputation of safety
Quality of Care	1 JCI Accredited hospital 4 ISO certified hospitals	No JCI accredited hospital Over 70 COHSASA accredited hospitals	No JCI accredited hospital 4 ISO and OHSAS hospitals	No JCI accredited hospital 1 COHSASA accredited hospital
Infrastructure	Variety of accommodations, Kenya Airways flies to over 33 African countries	Variety of accommodations South African Airways flies to over 26 African countries	Variety of accommodations, Tunisair flies to 9 African countries	variety of affordable accommodations, strong tourism support services Rwandair flies to 11 African countries
Cost	Competitive travel costs, range of accommodations prices	Travel costs are higher, costs of accommodations are higher	Travel costs are higher, range of accommodation prices,	Range of hotels across prices ranges, competitive regional travel
Cultural Proximity	Swahili and English readily used, similar religious mix	English and other Southern African languages spoken.	English and Arabic, predominately Muslim	English and French as well as many regional languages spoken, similar religious and cultural makeup

The quality and quantity of doctors is a key challenge. It is estimated that there are currently 633 doctors, 7,286 nurses and at least 130 medical specialists in the country. This means that there are approximately 20,000 people per one doctor. Specialists such as orthopaedic surgeons and ophthalmologists are even fewer, eight and twelve respectively.

Illustration 30: Number of physicians per 1000 people in competitor countries (2010)ⁱⁱ

Country	Number of Physicians per 1000
Singapore	1.9
Tunisia	1.2
South Africa	0.8
India	0.6
Thailand	0.3
Kenya	0.2
Rwanda	0.1


The low quantity of medical professional severely impacts the quality of health care in Rwanda. This challenge is further aggravated by the fact that most of Rwandan doctors are recent graduates who have very limited work experience. Limited equipment and infrastructure further contribute to the quality challenges of Rwanda's health care system.

The Human Resources for Health Program run by the Ministry of Health is an exciting project that will significantly improve the quality and quantity of health care professionals in the country. Launched in August 2012, The HRH Program aims to build the healthcare education infrastructure and workforce necessary to create a high quality, sustainable healthcare system in Rwanda. The HRH program is supposed to run for 5 years from 2012 - 2016.

The HRH program will train over 550 medical specialists, upgrade the skills of over 5,000 nurses and introduce a formalized training in health management and dentistry. Partnering with a consortium of 23 top US Institutions of medicine, nursing, health management, and oral health, the program focuses on key specialists such as Internal Medicine, Paediatrics, Obstetrics and Gynaecology (Ob/Gyn), Surgery, Anaesthesiology, Emergency Medicine, Radiology, Pathology, Oncology and Psychiatry.

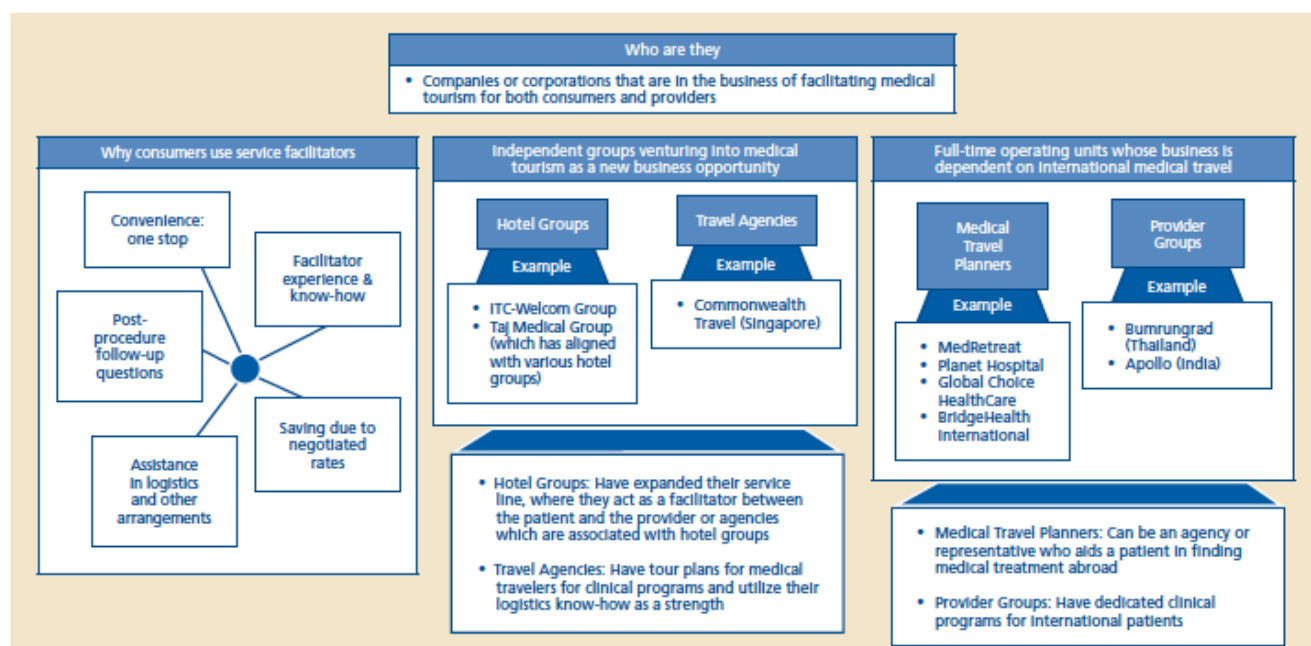
Rwanda's medical tourism efforts should be aligned with the country's overall health care sector strategy. A key determinant of the specialties for Rwanda's medical tourism offering should therefore be aligned with future capacity building upgrades as the ones under the HRH program. In addition, future specialties should be aligned with key infrastructure and equipment upgrade plans.

Illustration 31: The Human Resources for Health Programⁱⁱⁱ

Current Specialists		Training and Education	
Specialists	Number	 <p>HUMAN RESOURCES FOR HEALTH PROGRAM REPUBLIC OF RWANDA</p>	
General Surgery	12	Goal: <ul style="list-style-type: none"> • Train over 550 medical specialists • Upgrade the skills of over 5000 nurses • Introduce formalized training in health management and dentistry. 	
Orthopedic Surgery	5		
Diagnostics	7	Specialties: Internal Medicine, Pediatrics, Obstetrics and Gynecology (Ob/Gyn), Surgery, Anesthesiology, Emergency Medicine, Radiology, Pathology, Oncology and Psychiatry	
Cardiology	2		
Oncology	3		
Nephrology	3		
Ob/Gyn	34		
Pediatricians	29		
Ophthalmologists	10		

The success of Rwanda as a medical tourism destination is hinged on well-functioning, coordinated and competent suppliers who will make up the medical tourism cluster. The medical tourism cluster which is not only made up of the health sector players should have the required capacity and willingness to serve the new medical tourism niche.

Illustration 32: Illustration of a medical tourism ecosystem^{liii}

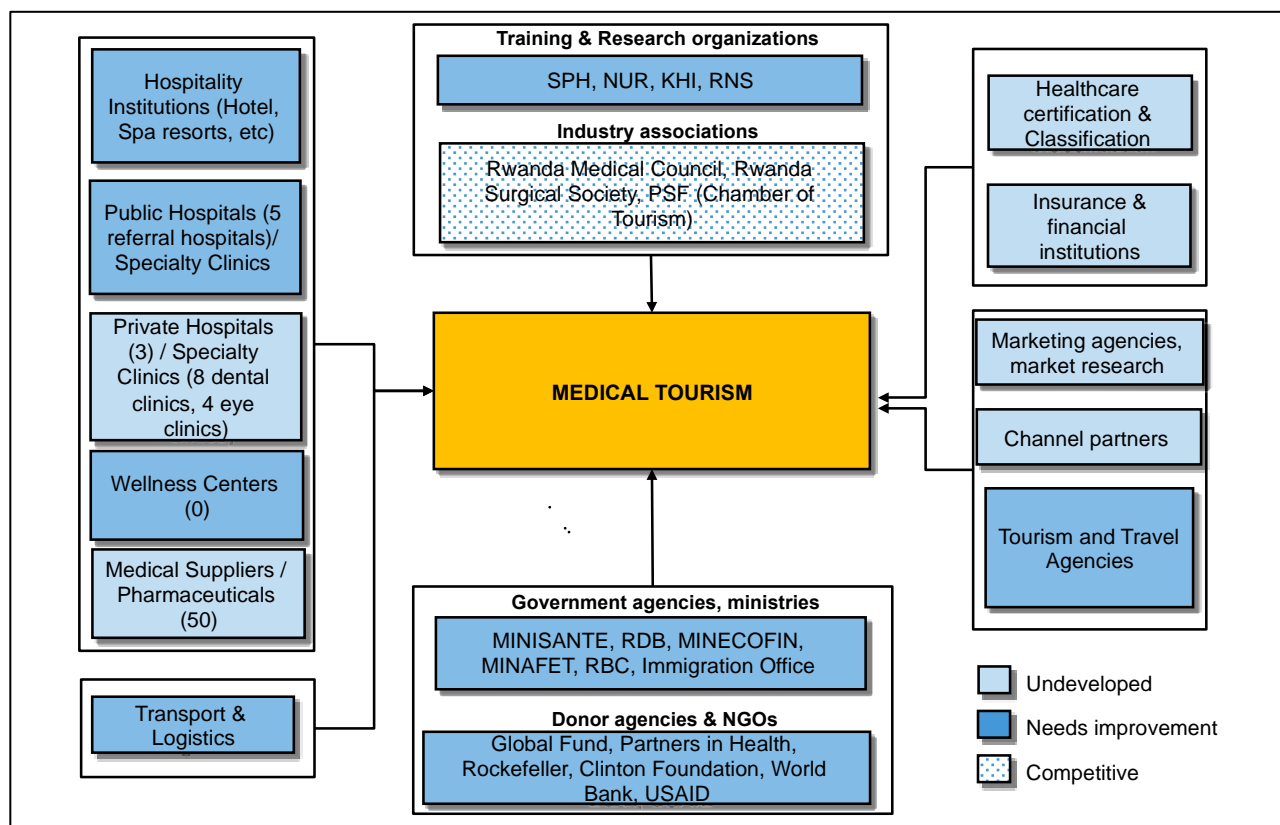


As outlined in illustration 18, the medical tourism cluster in Rwanda will be made up of different private and public sector players. Some of the members of the cluster will include: tour operators, Rwanda development Board, Ministry of Health, directorate of migration and immigration, , Private and Public Hospitals, local and local & international Insurance agencies, Airlines, Road Transporters, Accommodation providers, among others.

All members of the cluster will need to have clearly defined roles and responsibilities. In order to effectively carry out their roles and responsibilities, different cluster members will need to support each other in specific ways. The support will range from capacity building for customer care training, information on what medical tourists want and feedback from different tourists and finally, financial resources to upgrade service provision.

Rwanda will also need to greatly leverage key partners to act as champions of Rwanda's medical tourism offering. Rwanda has cultivated relationships with individuals such as Paul Farmer and Bill Clinton and the institutions they lead. These individuals have carved out a niche for themselves in the health care industry and should be strategically leveraged as invaluable marketing channels for Rwanda's health care services sector.

Illustration 33: Illustration of Rwanda's current medical tourism eco-system.



IV. Leveraging the Medical Tourism Opportunity

Rwanda needs to make an informed choice about whether to pursue medical tourism or not. The purpose of this engagement is to make informed choices about how to go about establishing Rwanda as a medical tourism destination of choice. In essence, this assignment is about detailing actions that need to be taken in order to build a competitive medical tourism cluster.

A. Strategic Options – “Go” or “No Go”?

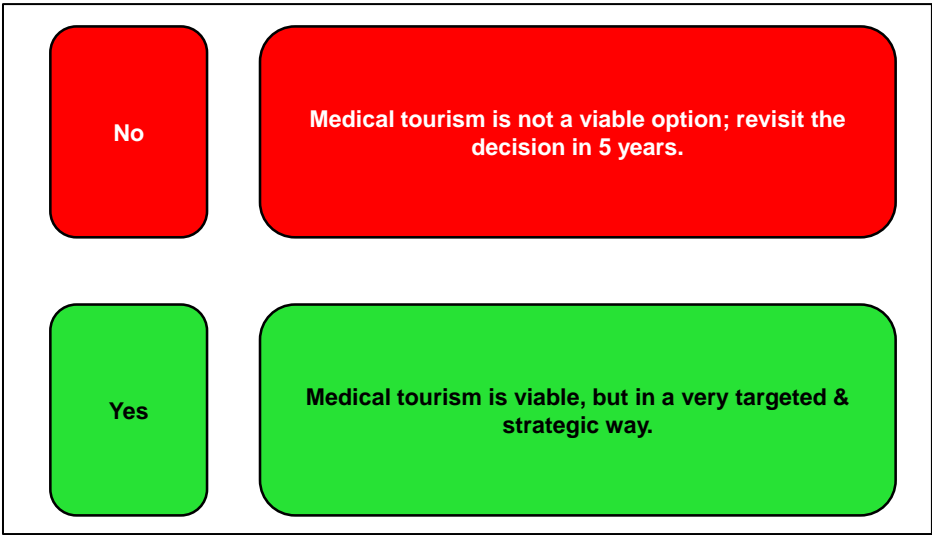
The essence of this engagement is a decision making exercise that will help RDB and the broader medical cluster answer the following questions based on data, not conjecture:

- 1. Should Rwanda seek to develop a medical tourism/international health services cluster?
- 2. If the answer is “Yes”, what care the customer segments and medical procedures that are attractive and what strategic actions need to be taken?

For the first question, the answer is not black and white. If the answer were negative, we would suggest revisiting the idea in 5 years to test the decision again. Where the answer is positive, launching the sector must be done in a very thoughtful and targeted way based on a strong understanding of customer needs.

Based on our research to date, including consultations with international experts and Rwandan stakeholders, we firmly believe that there is a way for Rwanda to compete in international health services. In fact, the medical tourism train has left the station. Rwanda has already attracted key investors such as Agarwal eye clinic and the local private sector has established hospitals as well such as La Croix du Sud and various dental clinics. In addition, local doctors and hospitals report receiving medical tourists from the region and especially Congo DRC and Burundi.

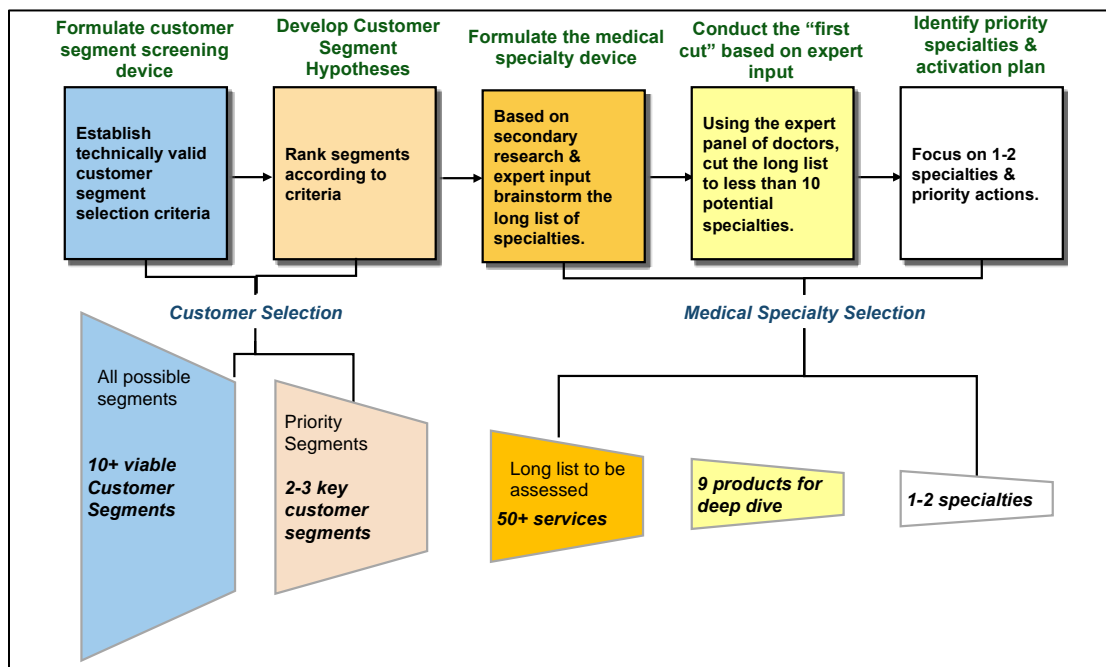
Illustration 34: “Go” or “No Go”?



B. Selecting Customers & Specialties

Once the team validated the decision to pursue a medical services strategy, the next was to develop a screening methodology for customer segments and medical procedures. The goal of this screening process is to arrive at a shortlist of two to three customer segments and one to two procedures to act as “quick wins”. An overview of the process is found in the illustration below.

Illustration 35: Rwanda Health Services Customer Segment & Specialty Selection Process^{liv}



The “first cut” for prioritizing medical specialties is more dependent on the input of the medical doctors on the engagement team. The reason for this is that they have the specialized knowledge required to understand the very specific needs of various procedures and the required capabilities of local service providers. The prospective shortlist of potential medical procedures” is found below.

In order to develop a robust list of specialties and customers, the team first consulted with the experts in the team to come up with a broad list of specialties based on emerging trends in the region. This list was then tested in a questionnaire to a larger group of regional and international doctors. Different stakeholders in a stakeholder workshop then validated the results of the survey.

Finalizing the selection of the medical specialties was based on the inputs below. The analysis included:

- Integration of World Health Organization statistics for death and incidence rates
- Benchmarking of procedure costs from various medical tourism destinations
- Assessment of the procedure specific policy environment
- Review of national and stakeholder goals which dictate pipeline as it relates to healthcare services
- Final validation by the health services “Brain Trust”

The key criteria for analyzing the viability of different specialty segments will include:

- Existing players and infrastructure
- Complexity and cost of implementation
- Number of specialists needed per each specialty

As noted in the graphic above, this specialty selection process will result in the prioritization of 1 to 2 specialties that RDB and the health services cluster must focus on to launch the industry.

Nine preliminary specialities were shortlisted for further consideration as illustrated in figure 25. The paragraphs below dive into the explanation for the selection of the nine specialties and for a further breakdown of the top three specialties.

Illustration 36: Preliminary Medical Specialty Selection Ranking for Rwanda Health Services^{lv}

Nephrology	Medical specialty focused on treatment of kidney problems, and renal replacement therapy (dialysis and kidney transplantation); also includes systemic diseases affecting the kidney such as diabetes, autoimmune disease, osteo-dystrophy and hypertension.
Oncology	Medical specialty focused on the most common cancers including screening, diagnosis, surgery, therapy, follow up and palliative care.
Cardiology	Medical specialty dealing with disorders of the heart including medical diagnosis and treatment of congenital heart defects, coronary artery disease, heart failure, valvular heart disease and electrophysiology.
Diagnostics	Medical discipline aimed at detection of diseases and medical conditions. Includes diagnostic imaging and high end laboratory and pathology services.
Ophthalmology	Branch of medicine that deals with the anatomy, physiology and diseases of the eye including medical and surgical conditions.
Paediatrics	Medical care of infants, children, and adolescents up to age 18; should include pediatric specialties such as medical genetics, pediatric surgery, etc.
Obstetrics & Gynecology	Two surgical and medical specialties dealing with the female reproductive organs in their pregnant and non-pregnant state.
Orthopaedics & Trauma	Branch of surgery concerned with conditions involving the musculoskeletal system. Includes surgical and nonsurgical means to treat musculoskeletal trauma, sports injuries, degenerative diseases, infections, tumors, and congenital disorders.
Otolaryngology	Otolaryngology (ENT (ear, nose, and throat)) is the branch of medicine and surgery that specializes in the diagnosis and treatment of disorders of the head and neck including ear infections, hearing problems, cleft lip, sinus issues, and cancers of the head and neck.

Africa is seeing an unprecedented increase in disposable income, urbanization, mechanization, and globalisation. This trend has unfortunately caused a change in lifestyle and behaviour. The effect of this has been unhealthy diets and physical inactivity. This consequently shows up in individuals as raised blood pressure, raised blood glucose, raised blood lipids, and overweight and obesity^{lvi}. The result of this is an increase in cancer cases, cardiovascular diseases and diabetes among other diseases.

Cancer is one of the leading causes of death, killing 7.9 million every year and accounting for over 13% of all deaths worldwide^{lvii}. It is estimated the 18,000 Kenyans die annually of cancers with a further 82,000 being diagnosed of it every year^{lviii}. The high number of Kenyans who travel to India every year for cancer treatments confirms the increasing incidences of cancer. Although the cost of training oncologists and setting up infrastructure is prohibitive, oncology has very high returns due to a growing demand and large proceeds per procedure.

The mounting incidence of diabetes and hypertension in the Africa region has also led to an increase in demand for nephrology in the region. There is currently a significant unmet need for renal transplants and renal stone-related interventions in Africa. A survey of Kenyan patients leaving for India for medical treatments identified nephrology as the second popular procedure after cancer treatments. Despite the high costs of set up and infrastructure, renal transplants and other nephrology surgeries have high returns per patient.

Cardiovascular diseases account for the largest share of non-communicable disease deaths in the EAC region. Kenya indeed recently pushed to declare cardiovascular and chronic respiratory infections and diabetes as national disasters^{lix}. The incidence of CVD is also increasing at a much faster rate than other non-communicable

diseases due earlier mentioned reasons. Interventional cardiology would be able to meet much of the demand while cardiothoracic surgery could be incorporated at a later stage as it has much greater infrastructure and manpower demands.

Africa's population is largely young indicating future demand for quality maternal and childcare services.

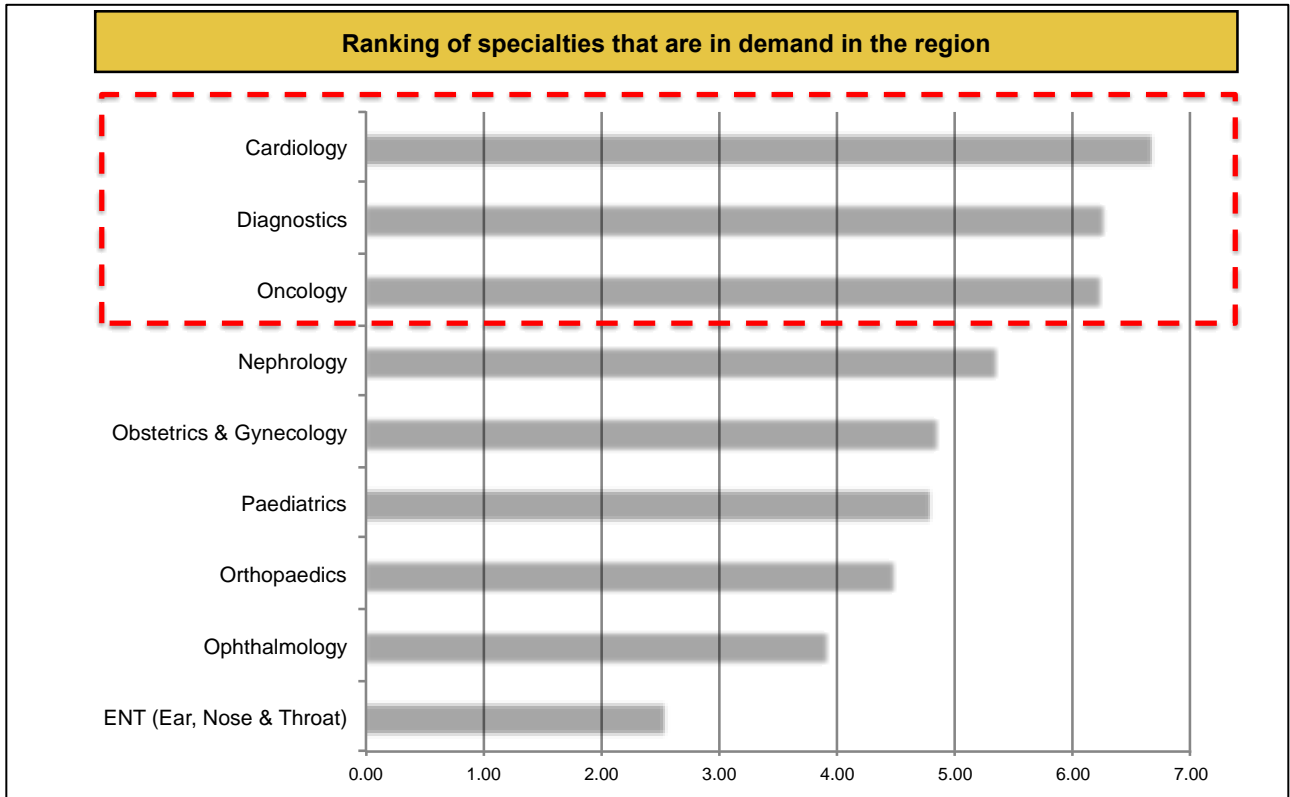
Rwanda already has a fairly strong obstetrics and gynaecological sector championed by Rwanda's goal of reducing infant and child mortality rates. Obstetrics, gynaecology and paediatric care is therefore relatively easy to set up due to the already existing infrastructure in Rwanda. Neonatal services and infertility treatments can further augment this sector.

The above-mentioned specialities all have at their heart quality diagnostic services to rightly diagnose diseases. Despite high equipment costs for diagnostic procedures, the need for diagnostics is underscored not only by the increasing demand but the ease of set up given that it does not require as many trained specialists as the other procedures. Finally, diagnostic services would ensure that Rwanda has up to date information on rising incidences of diseases and therefore enable the country to position itself to address these diseases.

Ophthalmology is a speciality that would be less costly to set up than many other specialties. While the unit cost per procedure may be less than above-mentioned surgeries the volume can ensure that ophthalmology is a highly profitable sector leading to significant revenues. In addition, there is a large market for ophthalmology in Africa given a 5.88% blindness rate in Africa. In Rwanda alone, it is estimated that 12% of all district visits are for eye ailments with about 2,000 cataract surgeries having been performed in 2010^{lx}.

The top three specialties that emerged were cardiology, diagnostics and oncology respectively. From the list of nine specialties, the team included a question to doctors in the survey to ascertain the specialties that were in highest demand in the region based on the doctors' experience. Given that diagnostics is cross cutting, nephrology emerged as the third in demand speciality in the region. A stakeholder workshop added dentistry, neurosurgery and cardiothoracic surgery to the existing list.

Illustration 37: Ranking of specialties that are in high demand in the region (n=72)



Removing diagnostics, paediatrics and ENT further reduced the list of nine specialties to six. Diagnostics was removed from the list of specialties because it is a cross cutting requirement for all the specialties. Paediatrics was also removed from the list because it is not a stand-alone specialty but one that is embedded in all the remaining six specialties. Finally, ENT was removed from the list, as it is a very niche speciality that was not in very high demand in the region.

The list of six specialties was then researched further to determine how big the market was for each. In addition to the demand, the research also investigated on what the estimated costs for setting up the facilities were. It finally looked at the number of doctors needed for each specialty against the number of specialty doctors that currently exist in the country. Figure 27 below summarizes the specific data for each of the six selected specialties.

Illustration 38: Deep dive into selected specialties

Specialty	Market	Equipment (Excluding Hospital)	Specialists Needed	Number of doctors (Current)	Existing Players
Oncology	New cases (2008) – 221, 076 Deaths (2008) - 173, 676	>\$7 million	Many specialists per cancer	3	KFH, Butaro DH
Cardiology	174, 887 (deaths)	>\$2 million	Cardiologist & ICU nurses	2	KFH, CHUK, CHUB, la Croix du Sud
Nephrology	12, 719 (deaths)	>\$150,000	Nephrologists & Dialysis technicians	3	KFH, CHUK
Obstetrics and Gynecology	174, 045 (c-section births)	\$100,000	Gynecologists	34	KFH, CHUK, CHUB, la Croix du Sud, all DH, 50 private clinics
Orthopedics and Trauma	131,246 (deaths)	\$75,000 - \$200,000	Orthopedician & Qualified assistant nurses	5	KFH, CHUK, CHUB, one private center
Ophthalmology	8,820,000	\$150,000 - \$600,000	Ophthalmologist	10	KFH, CHUK, CHUB, la Croix du Sud, Agarwal, 4 private clinics

By focusing on these key specialties, Rwanda can generate up to \$15M by 2018. It is important to stress here that these revenues will be generated based on the current infrastructure that is available. Revenues from oncology are estimated to reach \$5M in 2018 while those from cardiology are estimated to reach \$7M. Revenues from Nephrology are estimated to reach about \$3.4M in 2018. Details of these revenues are in appendix 4.

Whereas these specialties have the highest demand in the region, other specialties can still be run profitably. It was not the goal of the specialty selection exercise to communicate that other specialties such as dentistry or even ophthalmology that do not feature as top specialties cannot run profitably in the country. Indeed, our stakeholder interviews have confirmed that there are dentists, dermatologists and ophthalmologists who are running successful clinics in the country servicing the region.

C. Wellness Tourism

Wellness tourism is defined as travel associated with the pursuit of maintaining or enhancing one's personal wellbeing. The industry is estimated to be a US\$438.6 billion global market accounting for 14% of all domestic and international tourism expenditures. Wellness tourism is projected to grow by more than 9% per year through 2017, nearly 50% faster than overall global tourism. Wellness tourism is estimated to be similar in size to ecotourism.

Wellness travelers tend to be wealthier, have achieved a higher level of education, and spend more per trip on average. For example, an international tourist on average spends \$1,000 per trip (not including international air travel), while an international wellness tourist spends 65 percent more. The differential between an average domestic traveler and a wellness traveler is even greater, with domestic wellness travelers spending 2.5 times the average domestic tourist per trip.

Illustration 39: Spectrum of activities that wellness travelers engage in^{bi}

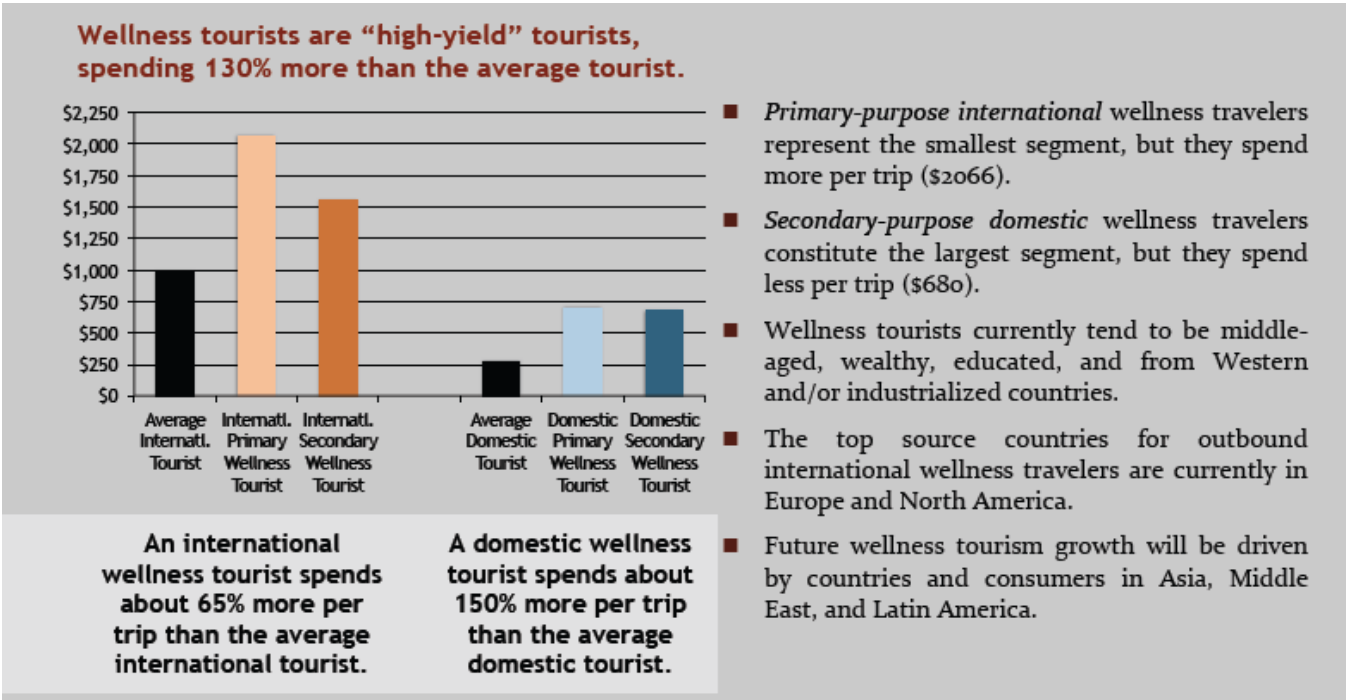


Spa tourism is a core component of wellness tourism representing 41% of the market. Non-spa related wellness tourism activities such as healthy hotels and cruises, baths /springs; fitness, yoga or lifestyle retreats;

travel to nature parks/preserves; organic/natural restaurant expenditures; and other healthy lodging and retail represent 59 % of the market.

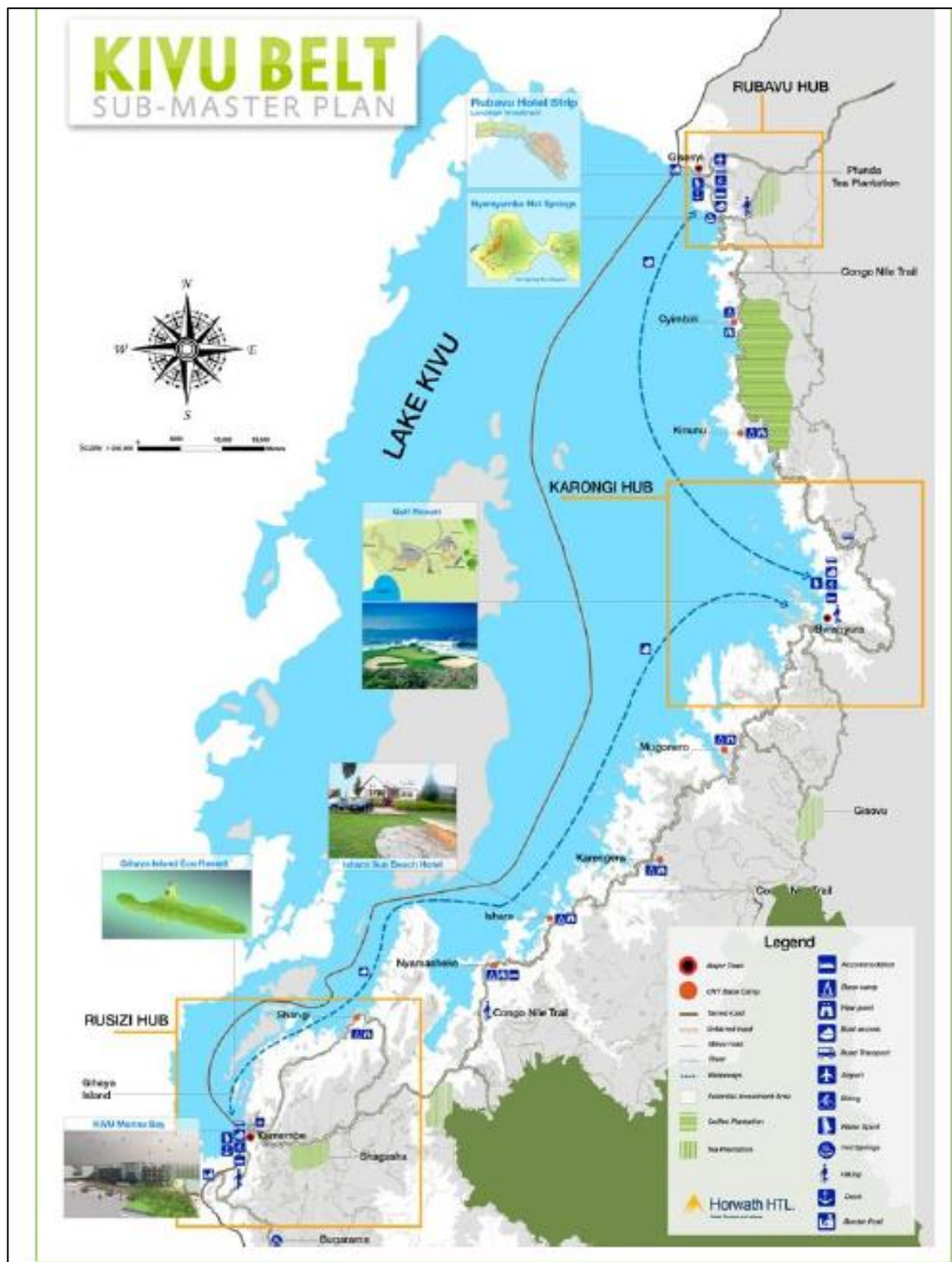
Primary purpose and secondary purpose travelers make up the two distinct segments of wellness travellers. Primary purpose travelers plan their travels specifically for wellness activities—visiting spas, health resorts, baths and springs, yoga retreats, gyms and fitness centers, and even specialty restaurants. Secondary purpose travelers on the other hand engage in in wellness related activities as part of other trips. Secondary travelers make up a much larger proportion of the market, accounting for 85% of all wellness trips and expenditures.

Illustration 40: Characteristics of wellness travellers^{lxii}



Wellness tourism is indeed a low hanging fruit for Rwanda. Rwanda has a favorable climate, geography and cuisine that can provide a launchpad for a stand-alone wellness tourism product. In addition, Rwanda already has a well-established tourism product championed by the eco-tourism product to a large extent and meetings and conferences to a smaller extent. Rwanda’s wellness product can be sold to these already existing niche products as add-ons to the existing travellers. Wellness tourism is estimated to generate additional revenues of \$3M by 2018.

Illustration 41: Kivu Belt Sub-Master Plan^{lxiii}



Rwanda’s tourism masterplan has designated the Volcanoes Destination Management Area (DMAs) for a **potential spa and wellness-integrated resort**. In addition, the Lake Kivu Belt has identified specific areas in Rubavu which have natural hot springs and has demarcated an area for the construction of a hot spring resort at the cost of US\$ 40 million as indicated in figure 27 below.

Illustration 42: Kivu Belt Sub-Master Plan – Hot Springs

Project Data Hot Springs	
Ownership:	Community owned land
Size of property:	Approx. 12,5 hectares
Zoning rights:	Tourism zone (TA 2)
BUA:	Max. building coverage: 30% Max FAR: 2.4 Max. number of floors: G+3
Topography:	Hilly (>15 meters over 200 meters length, sloping max. 10%)
Services to boundaries:	Not confirmed, farm land
Services at location:	Water, electricity and sanitation is municipal, not to site
Access to site:	3 km from airport, 500 meters from tarred road, dirt road
Environmental Impact Analysis (EIA):	Required
Guidelines/rights:	Zoned for tourism and leisure development
Restrictions:	Coverage and height restrictions. Subject to zoning regulations. The Department of Land Use Management and GIS may, at its discretion, grant increases in additional floor area, storey height or building coverage for developments that adopt sustainable design technologies or techniques.
Construction cost:	US\$ 40.000.000

Aside from the hot springs available along the Kivu belt, Rwanda has other amazing attractions that can be packaged for the wellness travellers. Rwanda's amazing sceneries at the Nyungwe National Park over the canopy walk as well as vast tea and coffee plantations, orchids and bird tours can all be packaged to add value to the wellness traveller. All these packaged with Rwanda's natural diet can provide an oasis for the seasoned wellness traveler.

V. Conclusion – East Africa’s Premiere Medical Tourism Destination

With 2020 fast approaching, Rwanda must accelerate economic growth to the EDPRS II target of 11.5% to fully realize the lofty goals of Vision 2020. Given the service sector’s consistently strong growth performance of 13.5%, a key objective of the GoR is to manage a structural shift towards a service and knowledge based economy. Our firm belief is that medical tourism can contribute to this vision while improving the health of all Rwandans.

The global medical tourism market is estimated at up to \$100 billion per year and growing at very healthy rate of 15-25% as potential consumers take advantage of better and lower cost transport links and information to reduce the costs of healthcare. In this massive market, the addressable portion of the East African market in Rwanda’s target specialities is \$144 million.

Medical tourism has been a key contributor to economic growth for a number of countries. **India’s** medical tourism industry was for example predicted to be worth **\$2 billion in 2012**, which was between 6-7% of their GDP^{lxiv}. **Tunisia’s** medical tourism industry was valued at **\$223 million in 2007**^{lxv} while **South Africa** generated an estimated **\$184 million** in revenues in 2010.

Based on our research to date, including consultations with international experts and Rwandan stakeholders, we firmly believe that there is a way for Rwanda to compete in medical tourism including wellness tourism. Our analysis reveals that **diagnostics, cardiology, oncology** and **nephrology** are the highest in demand specialties in the region. Medical tourism has the potential to generate \$18 M in annual revenues by 2018 for this pilot phase of the initiative.

There are **three key factors that will determine Rwanda’s ultimate success or failure** in medical tourism:

- **Go beyond universal primary care** and develop world-class specialty healthcare services
- **Encourage investment** by specialized healthcare services providers through targeted investment promotion
- **Position Rwanda** as a specialized regional medical tourism hub through marketing & bilateral accords

Rwanda’s track record of moving from vision to execution is impressive. Assuming this history of success holds, medical tourism offers an attractive and high impact way to contribute to Rwanda’s economic growth objectives while upgrading the nation’s healthcare system and the health of all Rwandans. This type of two-fold impact is almost unique and should serve as rallying cry to kick start a new and exciting cluster.

Appendix

Appendix 1: Rwanda's International Health Care (Medical Tourism) Attractiveness Survey

Rwanda's International Health Care (Medical Tourism) Attractiveness Survey

Introduction:

The Rwanda Development Board (RDB) is leading Rwanda's efforts of positioning the country as regional health care destination of choice. Your honest opinion is extremely important to us. Please be assured that we will not try to sell you anything and will not ask for personally identifying information. Any information you provide will be kept strictly confidential, and the results from this research will only be presented in the aggregate.

This survey should take under 10 minutes to complete.

A. Regional Health Care (Medical Tourism) Destination Attractiveness

1. On a scale of 1 -5 where 1 is not important at all and 5 is very important, how important would you say it is that a regional medical tourism destination/ a country offering health care services to regional patients has the following factors? Please rank on a scale of 1 – 5, where 1 = “Not important at all” and 5 = Very Important.

Not
Important at all
Neutral
Very
Important

1. Availability of information on the quality and cost of treatment	1	2	3	4	5
2. Travel cost and accessibility	1	2	3	4	5
3. Availability and standards of hospitals and health care facilities	1	2	3	4	5
4. Travel and aftercare services	1	2	3	4	5
5. Accredited hospitals and doctors	1	2	3	4	5
6. Availability of support services (diagnostics, pharmaceuticals, IT etc.)	1	2	3	4	5
7. Standard and quality of equipment	1	2	3	4	5
8. Reputation for good health care	1	2	3	4	5
9. Reasonable cost of treatment	1	2	3	4	5
10. Safety/ security	1	2	3	4	5

2. **How important would you say the following factors are to regional patients when making their health care travel decisions?** Please rank on a scale of 1 – 5, where 1 = “Not important at all” and 5 = Very Important.

	<i>Not</i>		<i>Neutral</i>		<i>Very</i>
	<i>Important at all</i>				<i>Important</i>
1. Cost of treatment	1	2	3	4	5
2. Cost of travel to destination	1	2	3	4	5
3. Waiting times	1	2	3	4	5
4. Availability of accommodation	1	2	3	4	5
5. Cost of accommodation	1	2	3	4	5
6. Cost of insurance	1	2	3	4	5
7. Track record of the country in dealing with similar diseases	1	2	3	4	5
8. Availability of information on the cost and quality of treatment	1	2	3	4	5

3. **How important would you say the following factors are to a Regional Medical Tourism healthcare system** Please rank on a scale of 1 – 5, where 1 = “Not important at all” and 5 = Very Important.

	<i>Not</i>		<i>Neutral</i>		<i>Very</i>
	<i>Important at all</i>				<i>Important</i>
1. Primary Care	1	2	3	4	5
2. Speciality Clinics (Tertiary Care)	1	2	3	4	5
3. Pharmaceutical services/products providers	1	2	3	4	5
4. Diagnostics (Laboratory, tests and evaluations)	1	2	3	4	5
5. Healthcare insurance schemes	1	2	3	4	5
6. Health Technology systems	1	2	3	4	5
7. Research	1	2	3	4	5
8. Regulations and Policies	1	2	3	4	5
9. Healthcare Management	1	2	3	4	5

10. Tourism services (travel services, accommodation, etc.)	1	2	3	4	5
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B. Perceptions of Rwanda

4. How likely are you to recommend Rwanda as a regional health care destination to your patients (Please tick one)	Never	
	Not likely	
	Maybe	
	Likely	
	Very Likely	

5. What are your top 3 reasons for the answer above?

6. From your current knowledge, please rate Rwanda on the following metrics? 1 = Not Good, 2= Fair, 3= average, 4= Good, 5 = Very Good

	<i>Not Important at all</i>		<i>Neutral</i>		<i>Very Important</i>
1. Availability of information on the quality and cost of treatment	1	2	3	4	5
2. Travel cost and accessibility	1	2	3	4	5
3. Availability and standards of hospitals and health care facilities	1	2	3	4	5
4. Travel and aftercare services	1	2	3	4	5
5. Accredited hospitals and doctors	1	2	3	4	5
6. Availability of support services (diagnostics, pharmaceuticals, IT etc.)	1	2	3	4	5
7. Standard and quality of equipment	1	2	3	4	5
8. Reputation for good health care	1	2	3	4	5
9. Reasonable cost of treatment	1	2	3	4	5
10. Safety/ security	1	2	3	4	5

7. How likely would you be to recommend patients to Rwanda if the country were to offer the following? 1 = Never, 2= Not likely, 3= Maybe, 4= Likely, 5 = Very Likely

Key

	Never	Not Likely	Maybe	Likely	Very Likely
1. Good track record of treating and curing diseases	1	2	3	4	5
2. Reasonable travel time and cost	1	2	3	4	5
3. Reasonable cost of treatment	1	2	3	4	5
4. Safety/ security	1	2	3	4	5
5. Availability of hospitals and health care facilities	1	2	3	4	5
6. High number of well trained doctors	1	2	3	4	5
7. Accredited hospitals and doctors	1	2	3	4	5
8. Adequate information on the quality and cost of treatment	1	2	3	4	5

8. How likely do you think <u>regional patients</u> are to select Rwanda as a regional health care destination (<i>Please tick one</i>)	Never	
	Not likely	
	Maybe	
	Likely	
	Very Likely	

9. What are your top 3 reasons for the answer above?

10. From your current knowledge, how do you think regional patients would rank Rwanda on the following? 1 = Not Good, 2= Fair, 3= average, 4= Good, 5 = Very Good

Key

Not Good	Fair	Average	Good	Very Good
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1. Availability of information on the quality and cost of treatment	1	2	3	4	5
2. Travel cost and accessibility	1	2	3	4	5
3. Availability and standards of hospitals and health care facilities	1	2	3	4	5
4. Travel and aftercare services	1	2	3	4	5
5. Accredited hospitals and doctors	1	2	3	4	5
6. Availability of support services (diagnostics, pharmaceuticals, IT etc.)	1	2	3	4	5
7. Standard and quality of equipment	1	2	3	4	5
8. Reputation for good health care	1	2	3	4	5
9. Reasonable cost of treatment	1	2	3	4	5
10. Safety/ security	1	2	3	4	5

11. In your opinion, what is the one thing that Rwanda needs to do to increase its attractiveness as a regional health care destination of choice?

12. Considering the suggested segments, what is your opinion on the following (H= High, M=Medium, L=Low):

Specialty (Segment)	Regional demand	Medical gaps in the region		
		Manpower	Affordable service	Physical Facilities
Oncology				
Cardiology				
Orthopaedics				
Obstetrics/Gynaecology				
Diagnostics services				
Others (s):				

13. Please provide your opinion by comparing Rwanda to already established regional medical tourism destinations against the following criteria (Rating: Lower, Equal, Superior)

Attribute	Kenya	South Africa	Tanzania	Tunisia	India
1. Availability of information on the quality and cost of treatment					
2. Travel cost and accessibility					
3. Availability and standards of hospitals and health care facilities					
4. Travel and aftercare services					
5. Accredited hospitals and doctors					
6. Availability of support services (diagnostics, pharmaceuticals, IT etc.)					
7. Standard and quality of equipment					
8. Reputation for good health care					
9. Reasonable cost of treatment					
10. Safety/ security					

C. Respondent profile

14. What is your current country (ies) of residence (Please Indicate in blank space)	
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15. In what healthcare level(s) do you practice / work	Primary Care	
	Secondary Care	
	Tertiary care	

16. Sector of practice (Please tick all applicable)	Public	
	- Hospital - Administrative Institution (Policy / Regulation)	
	Academics / Research	

	Private	
	<ul style="list-style-type: none"> - Clinic / Hospital - HealthCare Management 	

17. What is your professional responsibility	Clinic Owner	
	Hospital Director	
	Teaching Doctor	
	Other (Please specify):	

Optional Information:

Name: _____

Tel Number: _____

Email Address: _____

_____ End of Survey _____

Appendix 2: Sample Bilateral Health Agreements – South Africa

Country	Name of Agreement	Details
Swaziland	Agreement between the Government of the Republic of South Africa and the Government of the Kingdom of Swaziland on Cooperation in the Field of Health. Effective: 10 May 2010	Swazi citizens may be referred to South African public hospitals for specialised medical treatment. Swazis have to bring their own donors for organ transplants. They can pay the same price that South Africans pay for public health access.
Malawi	Agreement between the Republic of South Africa and the Government of the Republic of Malawi in the Field of Health Effective: 12 February 2009	Malawians may be admitted to South African public hospitals at subsidized fees (pay the same price that South Africans pay). Will continue to provide specialised medical treatment not available in Malawi.
Burundi	Agreement between the Government of the Republic of South Africa and the Government of the Republic of Burundi on Cooperation in the Field of Health Matters. Effective: 16 September 2008	Provision for the referral of Burundians to South African public hospitals for medical treatment. Under consideration: request for Burundians to access public sector treatment at the same price that South Africans pay.
Lesotho	Declaration of Intent on Cooperation in the field of Health. Memorandum of Understanding on Co-operation in the Field of Health. Effective: 3 May 2002	Facilitate cross border transfer of patients from Lesotho to South Africa for specialised medical treatment not available in Lesotho.
Mozambique	Agreement on Health Matters Effective: 8 December 2005	Agreement formalising the treatment of Mozambicans in public health facilities in South Africa (particularly border areas) and the implementation of a coordinated patient referral system. Mozambique will be billed for citizens treated in South Africa

Appendix 3: List of South African Based Medical Tourism Facilitators

1. Serokolo
<http://www.serokolo.co.za>
2. Surgeon and Safari
<http://www.surgeon-and-safari.co.za>
3. Cape Health Destination
<http://www.capehealth.co.za/home.html?page=2>
4. Nu Look Surgery
<http://www.nulooksurgery.com>
5. Afrisurg
<http://www.afrisurg.com>
6. Surgical Bliss
<http://www.surgicalbliss.com>
7. Afri-Care Health
<http://www.africarehealth.co.za>
8. Surgical Attractions
<http://www.surgicalattractions.com>
9. Dental Retreat SA
<http://www.dentalretreat-sa.com>
10. Dental Safaris
<http://www.dentalsafaris.com>
11. Medi-Travel International (subsidiary of Mediclinic)
<http://www.meditravel.co.za/tourism.htm>
12. South Link Consulting
<http://www.southlink.co.za>
13. ETI Health and Leisure
<http://ehlcc.com/ehlcc/>
14. Fertility Care SA
<http://www.fertilitycaresa.com>
15. Surgeon Assist
<http://www.surgeonassist.co.za>
16. IVF Safari
<http://www.ivf-safari.com/Default.aspx>

APPENDIX 4: Medical Tourism Revenues

	2014	2015	2016	2017	2018	Total
Total Revenues	\$ 4,845,834	\$ 6,084,553	\$ 8,267,128	\$ 11,965,466	\$ 18,356,314	\$ 49,519,296

	2014	2015	2016	2017	2018
Patients / Arrivals					
Oncology	452	543	706	988	1,482
Cardiology (angioplasty)	437	525	682	955	1,432
Nephrology					
Renal transplant	127	153	198	278	417
Dialysis	4,415	5,298	6,887	9,642	14,463
Total Patients	5,432	6,518	8,473	11,863	17,794
Companions					
Oncology	-	-	-	-	-
Cardiology (angioplasty)	-	-	-	-	-
Nephrology	-	-	-	-	-
Renal transplant	-	-	-	-	-
Dialysis	-	-	-	-	-
Total Companions	-	-	-	-	-
Wellness Travellers					
Leisure Regional	89	133	199	299	448
Leisure International	153	229	343	515	773
Business Regional	545	709	921	1,198	1,557
Business International	173	224	292	379	493
Total Wellness Travellers	959	1,295	1,756	2,391	3,271

Total Arrivals	6,391	6,518	8,473	11,863	17,794
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Yield, Patients					
Oncology	\$ 2,900	\$ 2,987	\$ 3,077	\$ 3,169	\$ 3,264
Cardiology (angioplasty)	\$ 4,334	\$ 4,464	\$ 4,598	\$ 4,736	\$ 4,878
Nephrology					
Renal transplant	\$ 1,511	\$ 1,556	\$ 1,603	\$ 1,651	\$ 1,701
Dialysis	\$ 165	\$ 170	\$ 175	\$ 180	\$ 186
Yield, Companions					
Oncology	\$ 1,150	\$ 1,185	\$ 1,220	\$ 1,257	\$ 1,294
Cardiology (angioplasty)	\$ 805	\$ 829	\$ 854	\$ 880	\$ 906
Nephrology					
Renal transplant	\$ 805	\$ 829	\$ 854	\$ 880	\$ 906
Dialysis	\$ 115	\$ 118	\$ 122	\$ 126	\$ 129
Yield, Wellness travellers					
Leisure Regional	\$ 625	\$ 644	\$ 663	\$ 683	\$ 703
Leisure International	\$ 2,146	\$ 2,210	\$ 2,277	\$ 2,345	\$ 2,415
Business Regional	\$ 140	\$ 144	\$ 148	\$ 153	\$ 157
Business International	\$ 1,038	\$ 1,069	\$ 1,101	\$ 1,134	\$ 1,168
Revenues					
Oncology	\$ 1,312,119	\$ 1,621,779	\$ 2,171,562	\$ 3,131,393	\$ 4,838,002
Cardiology (angioplasty)	\$ 1,894,900	\$ 2,342,096	\$ 3,136,067	\$ 4,522,208	\$ 6,986,812
Nephrology					
Renal transplant	\$ 192,184	\$ 237,540	\$ 318,065	\$ 458,650	\$ 708,615
Dialysis	\$ 728,442	\$ 900,354	\$ 1,205,574	\$ 1,738,438	\$ 2,685,887
Revenue to RwandAir	\$ 80,023	\$ 49,420	\$ 64,245	\$ 89,943	\$ 134,915
Wellness Travellers					
Leisure Regional	\$ 55,341	\$ 85,502	\$ 132,101	\$ 204,097	\$ 315,329
Leisure International	\$ 327,475	\$ 505,949	\$ 781,691	\$ 1,207,713	\$ 1,865,916
Business Regional	\$ 76,170	\$ 101,992	\$ 136,567	\$ 182,863	\$ 244,853
Business International	\$ 179,179	\$ 239,921	\$ 321,255	\$ 430,160	\$ 575,984
Total, Wellness Passengers	\$ 638,166	\$ 933,364	\$ 1,371,614	\$ 2,024,832	\$ 3,002,083
Total	\$ 4,845,834	\$ 6,084,553	\$ 8,267,128	\$ 11,965,466	\$ 18,356,314

MEDICAL TOURISM – ONCOLOGY - A \$5M OPPORTUNITY

Providing Wealth and Health

Why Rwanda, why now?

- Medical Tourism is a by-product of a strong health system, and Rwanda's track record in providing primary care and investments around the health industry *is excellent*.
- Medical Tourism is a regional play. With the exception of Tunisia and South Africa, Africa is without strong regional players.
- With the right investments, Rwanda is in a strong position to capture the East African and West African markets.
- Rwanda's multilingual base of English, French and Swahili positions it well to capture the regional market.
- Rwandair currently has direct flights to 16 destinations.

Why Oncology

- All cancers in Africa have an incidence rate of 168.2 / 100,000, significantly above the average of 147.8 in less developed countries.
- There are currently over 200,000 new cases of cancer in Africa each year.
- It is estimated the 18,000 Kenyans die annually of cancers with a further 82,000 being diagnosed of it every year.
- Oncology patients spend an average of 9 days per stay and visit up to 3 times with procedure treatment costs of \$2000.
- The potential revenues from oncology will be \$4.8 Million by 2018.

Key RDB investments in the sector

- Marketing: lead participation of the sector in 3 key industry trade fairs in 2014.
- Infrastructure: designate and develop 3 medical hubs.
- Policy making: lead public-private workgroup to drive implementation of the strategy.
- Incentives: Medical equipment is exempt from import duty.

Priority regulatory and fiscal reforms

- Revise medical pricing schemes to increase profitability.
- Introduce a medical visa program to facilitate the easy and multiple entry of patients.
- Establish as single window clearance to ensure ease of business registration.

MEDICAL TOURISM – CARDIOLOGY - A \$9M OPPORTUNITY

Providing Wealth and Health

Why Rwanda, why now?

- Medical Tourism is a by-product of a strong health system, and Rwanda's track record in providing primary care and investments around the health industry *is excellent*.
- Medical Tourism is a regional play. With the exception of Tunisia and South Africa, Africa is without strong regional players, especially in East and West Africa. With the right investments, Rwanda is in a strong position to capture the East African and West African markets.
- Rwanda's multilingual base of English, French and Swahili positions it well to capture the regional market.
- Rwandair currently has direct flights to 16 destinations.

Why Cardiology?

- Cardiovascular diseases account for the largest share of non-communicable disease deaths in the EAC region.
- Approximately 12% of the cause of death of all citizens in the EAC is as a result of cardiovascular diseases.
- Cardiology patients spend an average of 7 days per stay.
- Cardiology patients are estimated to spend about \$3,500 per treatment.
- The potential revenues from cardiology are estimated to reach \$9M by 2018.

Key RDB investments in the sector

- Marketing: lead participation of the sector in 3 key industry trade fairs in 2014.
- Infrastructure: designate and develop 3 medical hubs.
- Policy making: lead public-private workgroup to drive implementation of the strategy.
- Incentives: Medical equipment is exempt from import duty.

Priority regulatory and fiscal reforms

- Revise medical pricing schemes to increase profitability.
- Introduce a medical visa program to facilitate the easy and multiple entry of patients.
- Establish as single window clearance to ensure ease of business registration.

MEDICAL TOURISM – NEPHROLOGY - A \$3.4M OPPORTUNITY

Providing Wealth and Health

Why Rwanda, why now?

- Medical Tourism is a by-product of a strong health system, and Rwanda's track record in providing primary care and investments around the health industry *is excellent*.
- Medical Tourism is a regional play. With the exception of Tunisia and South Africa, Africa is without strong regional players, especially in East and West Africa. With the right investments, Rwanda is in a strong position to capture the East African and West African markets.
- Rwanda's multilingual base of English, French and Swahili positions it well to capture the regional market.
- Rwandair currently has direct flights to 16 destinations.

Why Nephrology

- The mounting incidence of diabetes and hypertension in the Africa region has also led to an increase in demand for nephrology in the region.
- A survey of Kenyan patients leaving for India for medical treatments identified nephrology as the second popular procedure after oncology treatments.
- Nephrology patients spend an average of 7 days per stay for renal transplants and 52 for dialysis.
- The potential revenues from oncology will be \$3.4 Million by 2018.

Key RDB investments in the sector

- Marketing: lead participation of the sector in 3 key industry trade fairs in 2014.
- Infrastructure: designate and develop 3 medical hubs.
- Policy making: lead public-private workgroup to drive implementation of the strategy.
- Incentives: Medical equipment is exempt from import duty.

Priority regulatory and fiscal reforms

- Revise medical pricing schemes to increase profitability.
- Introduce a medical visa program to facilitate the easy and multiple entry of patients.
- Establish as single window clearance to ensure ease of business registration.

End Notes

ⁱ Republic of Rwanda (2012), *“Economic Development Poverty Reduction Strategy 2013 – 2018: Shaping Our Development.”* Republic of Rwanda

ⁱⁱ <http://www.patientsbeyondborders.com/medical-tourism-statistics-facts>

^{iv} ESPartners analysis incorporating WHO epidemiological data.

^v McKinsey and Company (2002), *“Health Care in India: The Road Ahead”*. New Delhi: CII and McKinsey and Company.

^{vi} Human Development Department (2009), *“Health Services Export Strategy Development Study”* Africa Development Bank

^{ix} Ibid

^x Paffhausen, Peguero, Roche-Villareal, *“Medical Tourism: a Survey”* United Nations, ECLAC, Washington D.C

^{xi} Ibid

^{xii} World Trade Organization, GATS, Part 1, Article 1.2 and Chanda 2001

^{xiii} <http://www.patientsbeyondborders.com/medical-tourism-statistics-facts>

^{xiv} Ibid

^{xv} McKinsey and Company (2002), *“Health Care in India: The Road Ahead”*. New Delhi: CII and McKinsey and Company.

^{xvi} Human Development Department (2009), *“Health Services Export Strategy Development Study”* Africa Development Bank

^{xvii} Southern Africa Migration Programme (SAMP), *“Patients Without Borders: Medical Tourism and Medical Migration in Southern Africa”* 2012.

^{xviii} Ibid

^{xix} Lunt et.al (2010), *“Medical Tourism: Treatments, Markets and Health System Implications: A Scoping Review”*, OECD-Directorate for Employment, Labour and Social Affairs.

^{xx} Deloitte (2008), *Medical Tourism, Consumers in Search of Value*, Deloitte Centre for Health Solutions, Washington, D.C.

^{xxi} Lunt et.al (2010), *“Medical Tourism: Treatments, Markets and Health System Implications: A Scoping Review”*, OECD-Directorate for Employment, Labour and Social Affairs.

^{xxii} Ibid

^{xxiii} Paffhausen, Peguero, Roche-Villareal, *“Medical Tourism: a Survey”* United Nations, ECLAC, Washington D.C

^{xxiv} http://www.apollohospitals.com/about_company.php

^{xxv} Human Resources for Health South Africa (2012), *Human Resources for Health Strategy for the Health Sector: 2012-2017*

^{xxvi} <http://www.cohsasa.co.za/health-quality-improvement-south-africa>

^{xxvii} Southern Africa Migration Programme (SAMP), *“Patients Without Borders: Medical Tourism and Medical Migration in Southern Africa”* 2012.

^{xxviii} <http://www.iol.co.za/dailynews/news/medical-tourism-for-kzn-1.1159315#.UuOaxvb8Iy4>

^{xxix} Ibid

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- xxx Ibid
- xxxi Paffhausen, Peguero, Roche-Villareal, *“Medical Tourism: a Survey”* United Nations, ECLAC, Washington D.C
- xxxii Ibid
- xxxiii Ibid
- xxxiv Human Development Department (2009), *“Health Services Export Strategy Development Study”* Africa Development Bank
- xxxv http://www.investintunisia.tn/site/en/article.php?id_article=789
- xxxvi Ibid
- xxxvii Dr Jason C H Yap (2007), *“The Singaporemedicine Story”*
- xxxviii Ibid
- xxxix <http://www.singaporemedicine.com/index.asp>
- xl [http://www.singaporemedicine.com/doc/patients_beyond_borders_singapore_edition .pdf](http://www.singaporemedicine.com/doc/patients_beyond_borders_singapore_edition.pdf)
- xli Lunt et.al (2010), *“Medical Tourism: Treatments, Markets and Health System Implications: A Scoping Review”*, OECD-Directorate for Employment, Labour and Social Affairs.
- xlii Ibid
- xliii <http://www.jointcommissioninternational.org/jci-accredited-organizations/>
- xliv <http://www.imtj.com/news/?entryid82=430412>
- xlvi Ibid
- xlvi <http://www.imtj.com/articles/2012/blog-medical-tourism-destinations-40177/>
- xlvi Rwanda’s International Health Care attractiveness Survey (August 2013), n=10
- xlvi Rwanda’s International Health Care attractiveness Survey (August 2013), n=10
- xlvi Rwanda’s International Health Care attractiveness Survey (August 2013), n=10
- l <http://www.gov.rw/Health-System>
- li <http://data.worldbank.org/indicator/SH.MED.PHYS.ZS>
- lii <http://hrhconsortium.moh.gov.rw/about-hrh/program-overview/>
- liii Deloitte Center For Health Solutions, ***“Medical Tourism; Consumers in Search of Value”***
- liv ESPartners methodology
- lv Ibid
- lvi <http://www.who.int/mediacentre/factsheets/fs317/en/>
- lvii Ministry of Public Health and Sanitation Kenya, National Cancer Control Strategy, <http://www.ipcrc.net/pdfs/Kenya-National-Cancer-Control-strategy.pdf>
- lviii Ibid
- lix <http://www.nation.co.ke/news/Official-wants-cancer-labelled-a-mass-killer/-/1056/2026166/-/de1r8z/-/index.html>
- lx Ministry of Health (2012), *“Rwanda Health Statistics Booklet 2011”*,
- lxi Global Spa and Wellness Summit, *“The Global Wellness Tourism Economy”*, 2013
- lxii Global Spa and Wellness Summit, *“The Global Wellness Tourism Economy”*, 2013
- lxiii Ministry of Trade and Industry, *“Rwanda Kivu Belt, Tourism Sub Master Plan”*, June 2013

^{lxiv} McKinsey and Company (2002), *“Health Care in India: The Road Ahead”*. New Delhi: CII and McKinsey and Company.

^{lxv} Human Development Department (2009), *“Health Services Export Strategy Development Study”*
Africa Development Bank