

The Medical Tourism Industry in the ASEAN 2015 Integration

“A Coopetion Framework for St. Luke’s Medical Center
and Biopolis of Singapore”



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EXECUTIVE SUMMARY

The Asian medical tourism industry is nearly a \$15 Billion industry, which accounts for roughly 5 million patients. In 2012 an estimated 1.6 million Americans travelled outside their country for care. About 90% of Americans considering medical tourism in Asia go to India, Thailand, and Singapore for their treatments. In Singapore, 200,000 out of 10.2 million (2%) tourists' main purpose for travelling was healthcare. On the other hand, affluent Asians tend to travel to Western countries to seek medical attention, considering medical practices in those countries are more advanced and have higher standards.

Such contrasting preferences is an opportunity for ASEAN countries to be recipient of patients seeking lower medical cost of high quality comparable to that of Western countries, thus preventing Asians from having to go to the US and Europe for medical treatment. Despite failing to enter the top 5 recipients of international patients, the Philippines is already in a position for developing its medical tourism with its deep talent and well-renowned medical practitioners providing quality services and facilities.

To push forward in building a strong Science & Technology base for ASEAN as a single integrated economy, and to ensure ASEAN to remain globally competitive, ASEAN Member Countries have to move up the ladder of medical innovation and focus on enhancing their capability for quality healthcare to its residents and international patients.

Both St. Luke's Medical Center of the Philippines and Biopolis of Singapore have compelling reasons to cooperate in improving the medical tourism industry in the ASEAN region. The Philippines is known for its deep pool of medical practitioners: doctors, laboratory technicians, nurses, and caregivers are well-sought by other countries for delivering high quality services at a lower cost wage. On the other hand, Singapore is known for its research facilities in Biopolis with strong skills in Research & Development and a deep pool of capital funding. The main

objective is to exploit both countries strengths to provide *Five-Star* quality of medical services in Asia at a *Three-Star* cost. With this objective, it is also presumed that patients from around the world will flock the Philippines for medical treatment using Singapore-developed advanced medical technology and practices, thereby improving the economic welfare of both countries.

This paper will discuss several frameworks on how the two countries can cooperate to be successful. Through the use of Input-Process-Output-Outcomes Framework, PESTEL Analysis, SWOT Analysis, Aggregate Value Proposition, Coopetition, and Game Theory- PARTS Framework, this paper will show that Singapore and the Philippines should collaborate and cooperate to become better health care providers in the ASEAN region. Should they be successful, this model should serve as a blueprint for other ASEAN Countries to emulate.

I. ASEAN 2015 VISION

ASEAN Leaders have recognized Science and Technology (S&T) as a key factor in sustaining economic growth, enhancing community well-being and promoting integration in ASEAN. The Leaders have envisioned that by 2020, ASEAN will be technologically competitive, competent in strategic and enabling technologies with an adequate pool of qualified and trained manpower, and strong networks of scientific and technological institutions and centres of excellence.

In line with this vision is the improvement of medical healthcare in the region to prevent ASEAN nationals to seek medical treatment abroad. Equally important is attracting patients from developed countries to seek medical treatment in ASEAN countries at *three-star* cost, yet at *five-star* quality.

To push forward in building a strong S&T base for ASEAN as a single integrated economy, and to ensure ASEAN to remain globally competitive, ASEAN Member Countries have to move up the ladder of medical innovation and focus on enhancing their capabilities for quality healthcare to its residents and international patients.

This paper will explore Singapore and the Philippines, two ASEAN member countries, on how they can cooperate to further promote the ASEAN Vision and establish a viable healthcare initiative focusing on medical tourism that will serve as a blueprint and model for other ASEAN Countries. The following Input-Processes-Output-Outcomes model for both Singapore and the Philippines is created towards a vision of improved healthcare services in the region, better customer satisfaction in healthcare, more international patients and highly advanced medical equipment in the ASEAN region.

Inputs	Processes	Outputs	Outcomes
Patients from	Application of high	Affordable (or lower	Increased customer

developed countries and ASEAN nations	quality medical practice and treatment	cost) health care	satisfaction in healthcare
Infrastructure: Hospitals, Biopolis, research facilities	Information sharing of best medical practices across the ASEAN countries	High quality and efficient medical treatments and procedures	Increase in international patients and tourists in the Philippines, and investors in Singapore
Doctors, nurses, researchers, technicians, laboratory specialists	High ethical standards adaptation for the medical profession	Better information sharing on best medical treatment practices	ASEAN nationals would seek medical treatment in the region as opposed to the US or EU.
Knowledge and technical knowhow.	Streamlining ASEAN visa requirements for developed countries		Overall, improved healthcare services in the ASEAN region
Insurance coverage, Health Management Organizations (HMO)			

II. THE MEDICAL TOURISM INDUSTRY

Industry in ASEAN, the Philippines and Singapore

Medical tourism is the practice of traveling to another country in order to receive medical attention. Medical Tourism (also known as health tourism or medical travel) is a term to describe the trend wherein people from one part of the world travel to another to obtain medical, dental, and/or surgical care. With the rising cost of medical procedures in Western countries, people from the US and Europe have started to seek needed medical treatments in other countries. People are heading to developing nations, mostly in Asia, for cheaper medical alternatives ranging from open-heart surgery and hip replacement to dental work and cosmetic procedures like face lifts, breast implants and even weight-loss surgery.

The Asian medical tourism industry is nearly a \$15 Billion industry, which accounts for roughly 5 million patients. In 2012 an estimated 1.6 million Americans travelled outside their country for medical treatment, and they headed to India, Thailand, and Singapore about 90% of the time when considering medical tourism in Asia. It has been reported that 19 million tourists visited Thailand in 2011, and 500,000 of them were there for medical treatment. In Singapore, there are 10.2 million tourists, and about 200,000 of them were seeking healthcare. On the other hand, affluent Asians tend to travel to Western countries to seek medical attention, considering medical practices in those countries are more advanced and have higher standards.

Such contrasting preferences is an opportunity for ASEAN countries, the Philippines and Singapore in particular, to be the recipient of patients seeking lower medical cost, yet of high quality, and preventing Asians from seeking medical treatment in the US and Europe. Despite failing to enter the top 5 recipients of international patients, the Philippines is already in a position for developing its medical tourism with its deep talent and well-renowned medical practitioners providing high quality services and facilities.

The Philippines hosts one of the best hospitals in Asia, the St. Luke's Medical Center in Fort Bonifacio. While Singapore has created a "Biopolis", an infrastructure dedicated to developing new medicines and technologies in the medical field. These two countries can work together to develop technologies, new medical procedures, enhanced information sharing, and exchange of knowledge in the ASEAN region to uplift the quality of medical treatment in Asia.

Since the ASEAN medical tourism industry is in its infancy stages, several challenges can be addressed by the cooperation of the two countries: quality of medical treatment practice, exchange of ideas on best medical practices, information sharing on drug effects and development, development of laws and regulations promoting the improvement of medical practices, and increase ethical awareness among the medical profession.

Such partnership would attract more and more patients from the Western countries and prevent locals from going abroad, hence increasing the market size and share of ASEAN in the medical tourism industry. Patients can opt for medical procedures done in Philippines using Singapore-

developed technologies and practices, and recuperation of the patient can be done in Boracay or Palawan.

St. Luke's Medical Center

St. Luke's Medical Center (SLMC) is a Philippine-based hospital that was founded in 1903 with a mission to provide outstanding out-patient care. Today it is the most admired hospital in the Philippines and an acknowledged leader in Asia with its flagship hospital called St. Luke's Medical Center – Global City in Fort Bonifacio, Taguig City.

SLMC's modern facility at the Fort Bonifacio Global City, which was opened in 2005, boasts of 650 beds, home to ten (10) Institutes, eight (8) Departments, and twenty-three (23) Centers. These centers of excellence bring to the Philippines the latest medical advances and treatment modalities. Indeed, SMLC is in a position to realize a bolder vision of the institution as one of the top five hospitals in Asia.

SLMC also holds the title of many "firsts" in the Philippines in terms of technology and research. It is known for its aggressive acquisition of top-of-the-line equipment. It was also the first to have equipment such as 3-Tesla Magnetic Resonance Imaging (MRI), 3D Echocardiography, 4D Ultrasound, 64-Slice CT Scanner, etc. Because of this, St. Luke's is better equipped than 90% of hospitals in the United States. St. Luke's continuously acquires the latest technologies to enhance its capabilities and deliver superior results in pursuit of its mission of healing.

In terms of quality, in 2003, the Joint Commission International (JCI) accredited St. Luke's Medical Center, affirming that the hospital meets the highest standards for patient care and organizational management. St. Luke's is the first healthcare facility in the Philippines and the second of several in Asia to be accredited by JCI. Indeed, SMLC is the undisputed leader in virtually all medical specialties, including cardiovascular medicine, neurology, neurosurgery, cancer, ophthalmology, digestive and liver diseases. It is the popular choice of medical and health-related practitioners and patients for executive check-ups.

St. Luke's delivers on its mission of healing by gathering the finest medical expertise, the most sophisticated medical technology and facilities, and a deep-rooted culture of compassion – all under its roof. Thanks to the compassionate character of SMLC, its current President and CEO, Dr. Edgardo R. Cortez, does not believe that fellow Filipinos should leave the country just to seek treatment abroad. To prove this point, in one instance involving the use of expensive cancer scanning equipment, he slashed the cost from P175,000 per scan to P85,000 just to match the same cost for the procedure in Thailand.

With these competitive prices and high standards of quality, SLMC receives several patients from all over Asia, Micronesia, the Middle East, Europe and the United States. The vision of the new President lies in developing this market and position SLMC as the leading hospital in medical tourism in Asia.

Biopolis of Asia - Singapore

“Biopolis was conceived as the cornerstone to a vision to build up the biomedical sciences as a key pillar of the Singapore economy. Home to public as well as corporate research laboratories, Biopolis brings together over 2,000 scientists, researchers, technicians and administrators in one location at one-north. The strong leadership and dynamism at A*STAR have produced breakthrough discoveries and earned Biopolis international repute for successfully anchoring the development of Singapore’s life sciences value chain, from R&D to manufacturing and healthcare delivery.”

The term “Biopolis” was given to the biomedical-research-park-cum-residential-and-recreational-complex, which was opened in October 2003 in the Buena Vista Science Hub adjacent to the National University of Singapore / National University Hospital Campus. The

Biopolis is spread over 8 hectares with seven architecturally unique buildings, and is intended to be a research campus within an urban park for biomedical researchers to “work, live, play and learn”. Singapore government’s lead agency for this endeavour is the Agency for Science, Technology and Research (A*STAR). It aims to foster world-class scientific research and talent for a vibrant knowledge-based and innovation-driven Singapore. A*STAR oversees 14 biomedical sciences, physical sciences, engineering research institutes and six consortia & centres located in Biopolis and Fusionopolis, as well as their immediate vicinity.

In order for the Biopolis of Asia to be realized, the Singapore Government operated in a Triple Helix framework, wherein the Government, Industry (private businesses), and University will work together as one system. The Government is in the forefront of this project as the primary source of funding for the infrastructure, research grants and seed capital. The University development is done through the expansion of state-owned National University of Singapore (NUS) and Nanyang Technological Institute (NTU). These universities are adding new roles, such as entrepreneurship and incubation of new businesses. These institutions are expected to conduct postgraduate courses, undertake research, and build-up strong linkages within industry and local academics. As for the Industry portion of the Triple Helix, Biopolis attracts multinational firms, pharmaceutical companies and other private firms to undertake research and development activities in the research facilities put up by the Singapore Government.

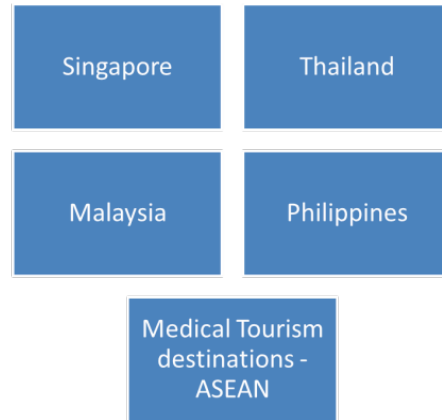
III. ASEAN INTEGRATION AND RAMIFICATIONS

Impact of ASEAN integration to Medical Tourism

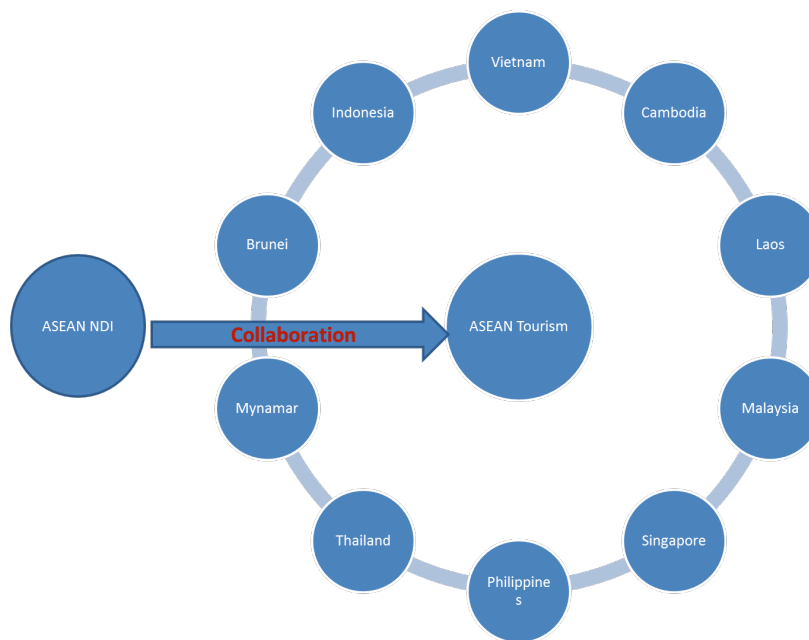
Under the ASEAN Economic Community (AEC), a single regional common market of ASEAN countries will be created by 2015. The regional integration's objective is to create a competitive market of over 600 million people in ASEAN countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. There will be free flow of goods, services, investment capital and skilled labour following the liberalization.

internationalized. The legal and licensing aspects are still needed to be worked out. With ASEAN integration, hospitals and research centres in Singapore, Philippines and Thailand will set the pace for mergers, acquisitions and joint ventures in other AEC countries to give them a better platform and help in taking care of developing AEC opportunities. We can expect huge influx of investments from foreign investors in ASEAN medical tourism due to rapid advancements in low cost healthcare development and commercialization of tourist destinations all over the region.

Clearly countries like Singapore, Philippines and Thailand have a clear advantage over the rest of the regional countries due to their highly developed healthcare setup. And through ASEAN integration, they can help others through investments and technology sharing. Moreover, relaxed pricing arrangements can be encouraged for people looking for better medical treatment in the ASEAN as a single bloc will revolutionize the medical tourism landscape. Healthcare is one of the sectors to be region.



In order to structure the ASEAN medical tourism industry, it is important to include this industry to ASEAN NDI, which can govern the development of a network of healthcare innovation and establish, strengthen and maintain a regional support system and network to narrow the gap among the region's nations. The proposed structure should be based on a Hub and Spoke model, wherein ASEAN NDI synchronizes with respective tourism industries to promote regional tourism.



Challenges for Medical tourism ASEAN integration

There are also challenges attached to this framework. One of the major challenges is the reluctance of governments to enter into this collaborative framework, as Tourism in each country is driven through state/central governments. Both political and economic disparity within the region can pose a challenge for all parties to participate in mutually beneficial integration.

Secondly, countries like Singapore and Thailand have the competitive advantage in terms of medical tourism due to their rapid advancements in healthcare technology and tourist destinations. Sharing of technology or value among the region can hamper their competitive advantage in the medical tourism landscape. This is one industry where the cooptation model can be implemented among various healthcare institutes to elevate the aggregated value proposition for medical tourism coming to the region

Moreover, there is an issue with the invalidity of healthcare insurance outside home countries for patients travelling abroad for medical treatments, especially from western countries, which can damage the advantage in cost savings, if insurance is not applicable within ASEAN hospitals. For instance, 60% of the US population receives employment-based health insurance, which is covered by a Health Maintenance Organization (HMO). HMO restricts usage of insurance to limited hospitals abroad, and currently only provides services to a few hospitals in Singapore, Philippines and Thailand. If ASEAN intends to promote itself as the ideal medical tourism destination, then health insurance plans or HMOs should cover most of the hospitals in the region.

Since medical tourism comprises of treatments such as surgeries/transplants and dental work, many patients show reluctance to travel abroad for treatment due to travel inconveniences during the healing period.

Despite potential cost savings of more than 50%, people are reluctant to come to the region because medical facilities in ASEAN are perceived to be of low quality. This is largely because most nations in ASEAN lack initiatives for getting foreign accreditation. ASEAN NDI should help ASEAN institutes in obtaining accreditation from JCI (international standard).

IV. ENVIRONMENT ANALYSIS

PESTEL Framework was used to determine whether the environment is favourable for both proponent (St. Luke's and Biopolis) companies to collaborate and eventually compete in the medical tourism industry. The result of the analysis is astoundingly positive. The global trends show an opportunity for both to make a mark in medical tourism. However, several challenges need to be overcome for both companies to flourish in the industry.

PESTEL Analysis	Issues	Impact
Political	<ul style="list-style-type: none"> • Strong government support for Biopolis • Growing political focus and pressure on Healthcare (ObamaCare) • Harmonization of healthcare across Europe • Visa requirements for medical tourists 	With increased in insurance coverage and relaxed visa requirements, more and more patients from the US, especially retirees, will seek medical treatment in other parts of the world. ASEAN nations will greatly benefit from this trend
Economic	<ul style="list-style-type: none"> • Rising Incomes for Asian region • Lower economic growth rates expected in the US and Europe • Lack of Philippine Government spending on hospitals 	The continuing slowdown in the economies in the developed countries would push its citizens to seek lower medical treatments in Asia.
Social	<ul style="list-style-type: none"> • Increase patient awareness and less decision making on Physicians • Increasing population of the developed countries 	Empowered patients can chose freely its preferred hospital and doctors, hence it patients would like to choose to seek treatment in lower cost countries like in Asia, given

Technological	<ul style="list-style-type: none"> • Increasing demand for • Strong R&D budget of Singapore • New and better medical equipment for treatments • Use of Information Technology in the field of medicine 	<p>equal quality service.</p> <p>The use of IT in healthcare can further patient medical records information sharing across different hospitals around the globe. The improvement in medical equipment in Asia, better than US-based technologies will make Asian hospitals better positioned vis-à-vis western hospitals</p>
Environment	<ul style="list-style-type: none"> • Growing environmental awareness • Growing medical and hospital wastes which are considered hazardous 	<p>With more hospitals and patients, more hazardous wastes will be generated. Hospitals should invest in its hazardous waste facilities to help curb medical waste. ASEAN should establish clear guidelines on hazardous waste treatment and disposal.</p>
Legal	<ul style="list-style-type: none"> • Lack of medical malpractice laws and relevant laws • Global inconsistencies in medical law 	<p>Developed countries have more established laws against medical practices. ASEAN should come up with harmonized laws against medical practices for the peace of mind of patients from abroad.</p>

Strengths – Weaknesses- Opportunities-Threats (SWOT)Analysis

Internal Analysis

St. Luke’s Medical Center (Philippines)	
Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Best hospital facilities in the Philippines 2. Highly skilled and trained talent pool of medical practitioners (Doctors and Nurses), 3. Innovator in terms of technological equipment employed – many firsts in the Phil. Ex. cancer scanning equipment, perform robotic surgery 4. Most comprehensive range of the latest and most sophisticated technologies for diagnosing and treating diseases from the simplest to the most complex. 5. St. Luke’s is better equipped than 90% of hospitals in the United States 6. High quality: Joint Commission International (JCI) accredited the hospital for meeting the highest standards for patient care and organizational management.St. Luke’s is the first healthcare facility in the Philippines and the second of several in Asia to be accredited by JCI 7. Many locally recognized centers of excellence: Heart Institute and Cancer Institute 8. Strong medical team and Management team 9. World-renowned beaches and tourist 	<ol style="list-style-type: none"> 1. Lack of International Accreditations in terms of research and networking with other hospitals 2. Lack of research labor pool and laboratory facilities, since it is a practitioner-based hospital 3. Lack of partnerships with international HMO’s and insurance 4. Low financial resources to carry out of new programs for medical tourism 5. Lack of budget for marketing and advertising of hospitals 6. Lack IT use for medical record keeping. 7. Less scientific research publish International medical journals

destinations in the Philippines	
Biopolis of Singapore	
Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Funding for capital investments and projects 2. Better skills and knowledge in medical technologies 3. Presence of Research & Development capabilities, and hi-tech laboratories 4. Better medical equipment 5. Highly developed infrastructure and research facilities - Biopolis 6. Strong linkages Industry (private firms) such as pharmaceuticals and MNCs 7. Integrated helix model of the Education support– as a “learning Singapore” i.e. NTU and NUS 8. Well-developed IT services and high speed internet access. 9. Better linkages to insurance and HMO providers 10. Management skills 11. Strong government support 12. Expertise in oncology and stem-cell therapies. 13. High percentage of English-speaking healthcare professionals 14. Facilities are built comparable to western 	<ol style="list-style-type: none"> 1. Singaporean medical practitioners and researchers are not enough, and highly expensive wages 2. High cost of living and associated living expenses that is deterrent to patients 3. Limited land 4. Lack of nature-related tourist attractions, i.e. beach, rural areas 5.

standards.	
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External Analysis

*Same for both Singapore and Philippines

St. Luke’s Medical Center & Biopolis of Singapore	
Opportunities	Threats
1. Different countries progresses differently with regard to recovery from crisis	1. Increased unemployment
2. Economic nationalism rises	2. Interest rate rise
3. Changes in consumer behavior	3. Increased inflation
4. More involved national governments	4. High volatility of currencies
5. US dollar value goes down	5. Global debt increases
6. Emergence of new middle class	6. Oil price hike
7. More managers needed everywhere	7. Personal taxes increased
8. New environmental strategy for companies	8. Labor costs differences shrink
9. Life sciences and environment attract massive investments	9. BRIC technological advancement on the rise
10. Shared knowledge rises	10. People retire later in life
11. Globalization, less trade and investment barriers	11. People in western nations travel less
12. Corporate taxes shrinks	
13. Cheap brainpower	
14. Different value systems in different cultures	
15. More importance in work-life balance	
16. Emerging nations catch-up to western technology	
17. Poverty decreases	
18. Life expectancy increases	

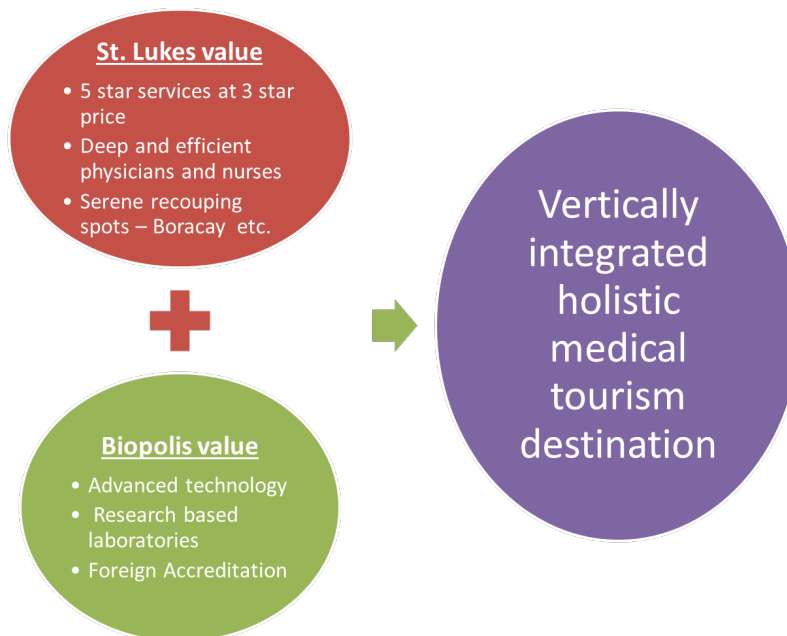
19. Pandemic risks occur more frequently (anti-epidemic)	
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V. COOPETITION FRAMEWORK

Regional Coopetition - A Case Study

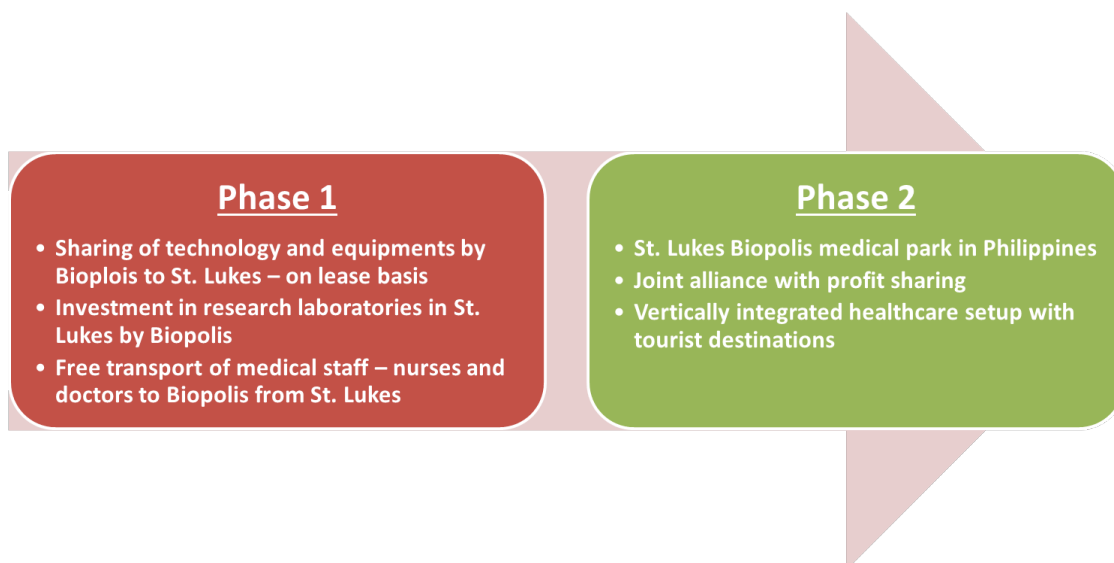
It is estimated that medical tourism in Asia could generate as much as \$5 billion by 2012, with approximately half of this revenue going to India. There has been an influx of foreign patients in Singapore and Philippines due to development of high quality medical services in hospitals like St. Luke's medical center. But there are still immense opportunities for them to grow further as medical tourism industry will grow by 20% annually in years to come.

St. Luke's Medical Center offers high quality yet reasonable-costing medical treatments in varied fields such as cardiovascular treatments / surgeries and dental care. Singapore, on the other hand, provides cutting-edge research in healthcare and technology. Through ASEAN integration, they have potential to come together to create one of the best medical tourism destinations in the world. This can happen through matching of one party's weakness with another party's strength.

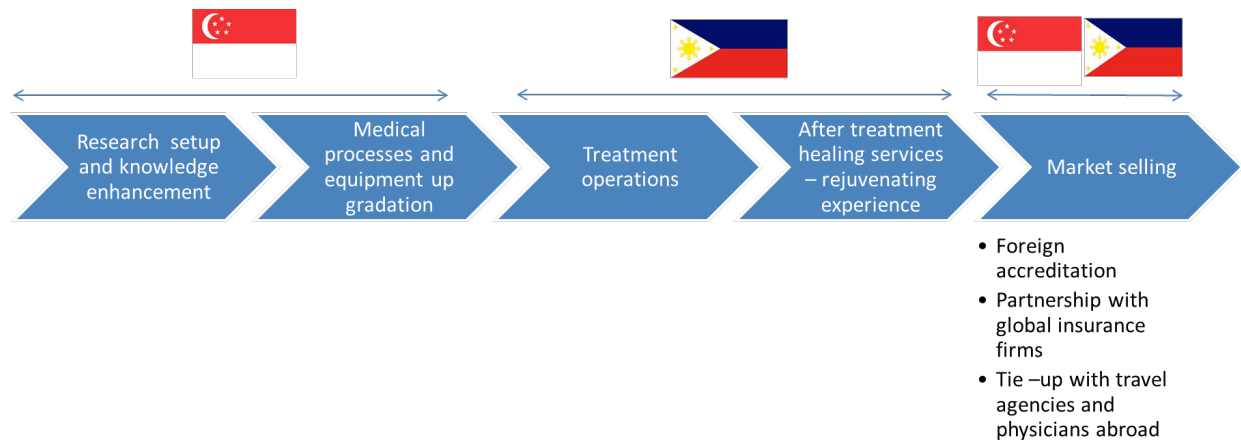


Both parties should enter into an alliance through competition in their respective skill sets and then coordinate to work as a single block for foreign patients. Alliances can be initiated in different phases. Initially, Biopolis can share St. Luke's the use of its patented healthcare products through licenses. It is encouraged that Biopolis invest in research laboratories within St. Luke's premises, which can lead to collaborative efforts from both parties to develop highly efficient medical treatment processes. On the other hand, nurses and doctors from St. Lukes can be sent to work in Biopolis to understand new medical treatments. This can result in cheaper and higher quality medical services in both.

In the second phase, both parties should establish a world class medical tourism destination. Biopolis, through its capital funding, should invest in the Philippines to open medical research parks as a joint venture with St. Luke's. The alliance will be on a profit sharing basis based on the equity invested by both parties in the park. This alliance will result in a research park with world-class facilities and could attract big multinational firms as collaborators. Through this venture, medical tourists throughout the world will get high quality medical services delivered by caring medical staff at prices less than 50% that of similar services in western countries. Moreover, for post-treatment recovery, the Philippines offers a perfect landscape of serene beaches in Coron, Boracay, and other relaxing destinations which will encourage the medical tourist to recover completely before travelling back home. The park will collaborate with travel agents to offer a wide array of affordable packages to medical tourists.



Value Chain of St. Luke's – Biopolis Medical Center



Coopetition Challenges

Information sharing

Based on game theory, St. Lukes and Biopolis belong to a competitive market where each party positions itself to gain market share. Both hospitals can opt to grow as individual firms and not collaborate with each other. Biopolis may be deterred from sharing its patented products and modern processes with others, because this can result in them losing control of private information about their cutting edge technology. St. Lukes might take advantage of the information from Biopolis and plan to compete with them in the research field in the future.

Capital Investments

To make this venture materialize, huge capital investments are required from both parties. Both might be reluctant to take these financial risks. There are also transaction costs involved in the alliance:

This will include things like the time and expenses involved in negotiating and enforcing contracts between both of them. Moreover in order to develop an integrated setup, tie-ups with suppliers, pharmaceutical firms and tourism industry will also be subjected to negotiations to prevent conflict of interest. Any changes put on table to discuss can lead to hold up problems for the park to go forward. Since this will be a cross country alliance, both governments will have a role to play and various related parties such as ASEAN NDI, health insurance firms might to cause holdups. Moreover St. Lukes still lack foreign accreditation for its medical services. Alliance will not be successful if the research park doesn't get accredited as medical tourists consider this parameter before travelling abroad for medical procedures.

Lack of standardization

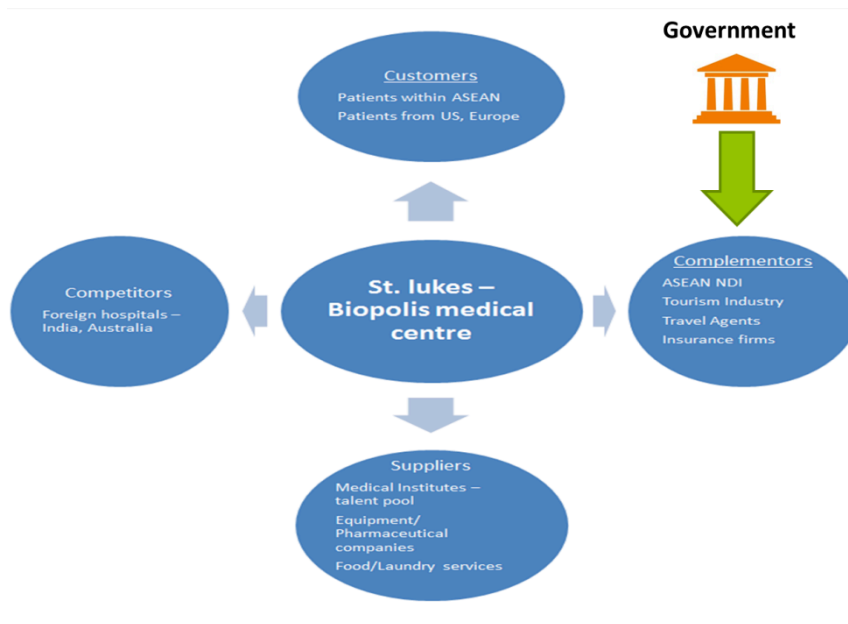
Medical tourism is thriving because of a huge mismatch in prices of healthcare in different nations without much difference in quality. But travellers usually own health insurances for their treatments and non-coverage of insurance reduces the inflow of foreign medical patients. It can be challenging for St. Luke's - Biopolis medical center to attain affiliations with major health insurance organizations of the world.

PARTS Framework

Players

In the medical tourism value net, there are lot of stakeholders involved. There are mainly 4 groups which influence the course of any firm:

1. Customers
2. Competitors
3. Suppliers
4. Complementors



In order to develop a vertically integrated healthcare setup, it is important that players like government, insurance firms, and tourism associations complement the venture

Added Value

It is important for both St. Luke's and Biopolis to collaborate so that they can share their competitive advantages and gain a major fraction of the medical tourism industry in Asia. Biopolis through its high technology with research facilities in synergy with low and efficient medical care of St. Luke's hospital supported by recreational destinations in Philippines can lead to fully integrated medical treatment destination in ASEAN region.

Rules

Healthcare policies introduced in Singapore and Philippines are focused towards its citizens, instead of foreign patients. Medical laws are drawn in order to subsidize services for local citizens. Moreover, foreign patients are required to have consent of their physicians/doctors before travelling abroad for medical treatments.

Tactics

Cooperation is a strategy which works on aggregate value proposition. Individual strengths of both St. Luke's and Biopolis are not able to match the growth posed by India in the medical tourism industry. Moving forward, it is imperative that the technology centers of Singapore collaborate with services centres in the Philippines under the ASEAN integration in order to have

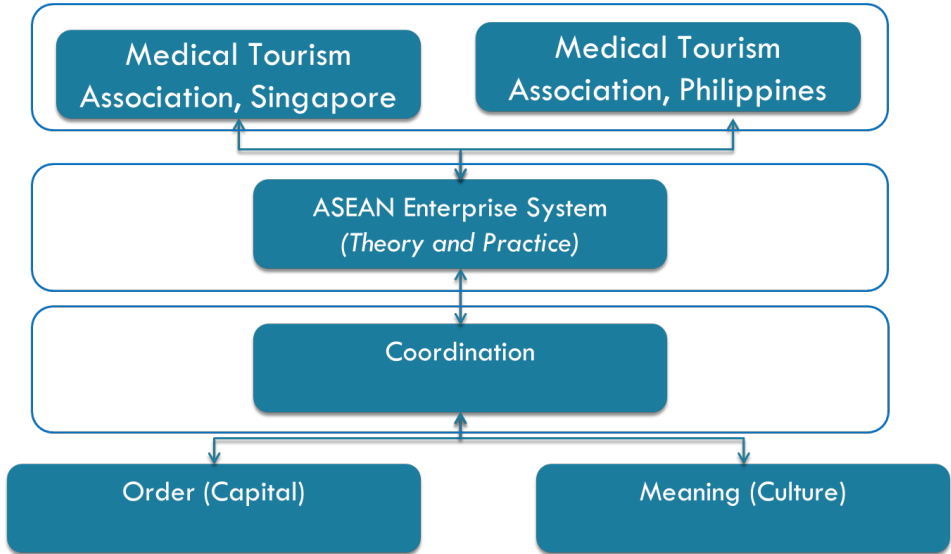
competitive advantage over India. This will also help tackle domestic issues within both countries, as there will be a constant evolution of technology and research followed by low cost operations through Alliance Park providing health services affordable to entire ASEAN region.

Scope

The cooperation between St. Luke’s and Biopolis will the change the existing boundaries of the game. Being vertically integrated, from research to delivery of medical procedures, will make the healthcare delivery faster as opposed to a static hospital model. Both countries will decrease R&D costs and training costs for medical practitioners because of pooling of resources.

VI REDDING FRAMEWORK

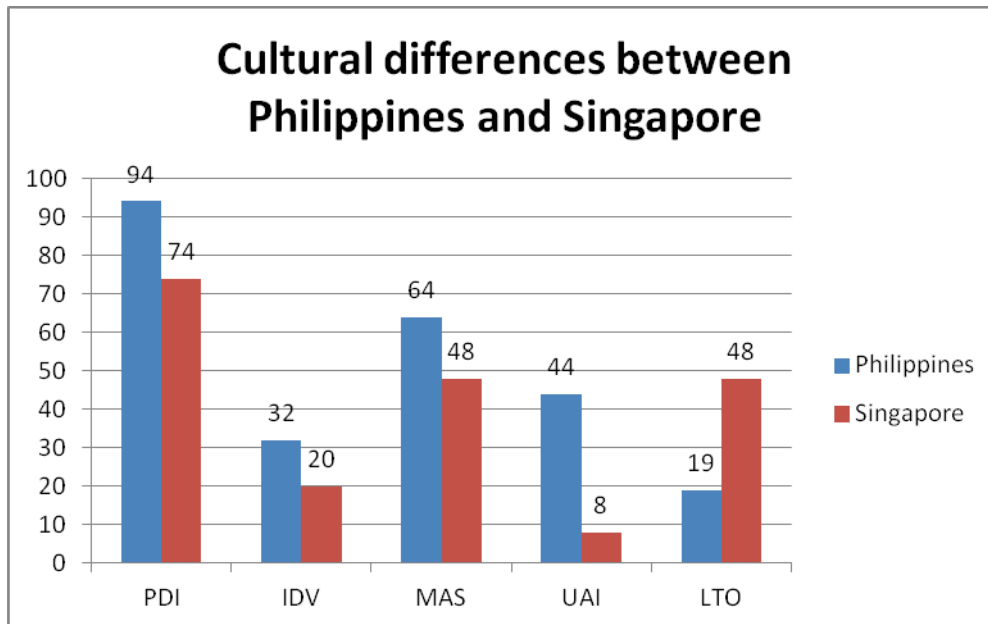
Since Biopolis is looking to expand its operations in Asia through an alliance with St. Lukes Hospital in Philippines, it is imperative that we understand each layer of business system involved in the collaboration. This is where Redding Framework helps us understand the differences and similarities between the business system setup in both the countries. The core idea is to understand the components of the society which drives the business systems of the economy and help them collaborate resources. Redding Framework for medical tourism industry is as shown in figure below:



Coordination between two hospitals is dependent upon both culture imbibed in the countries as well as capital attractiveness of both the nations. At the top level, medical tourism associations in both countries are responsible for promoting awareness about the Biopolis- St. Lukes Healthcare Park to western countries.

Culture

By exploring the Philippine culture through the lens of the 5-D Model, we can see the cultural difference between Philippines and Singapore



	Philippines	Singapore
Power Distance (PDI)	<ul style="list-style-type: none"> • Hierarchical Society • Centralization • Reflects Inherent Inequalities 	<ul style="list-style-type: none"> • Confucian background • Centralized power • Selective information flow • Indirect communication

Individualism (IDV)	<ul style="list-style-type: none"> • Collectivistic Society • Close long term commitment to the member group • Loyal • Take responsibility of a fellow group member 	<ul style="list-style-type: none"> • Collectivistic Society • Loyalty • Family is the prototype of all social organizations
Masculinity/Femininity (MAS)	<ul style="list-style-type: none"> • Masculine society • Society is driven by competition, achievement and success 	<ul style="list-style-type: none"> • More on the feminine side • Leveling with others, consensus • Modest and humble
Uncertainty Avoidance (UAI)	<ul style="list-style-type: none"> • Low preference for avoiding uncertainty • Flexible 	<ul style="list-style-type: none"> • Abide by rules
Long Term Orientation (LTO)	<ul style="list-style-type: none"> • Short term oriented • Respect for traditions 	<ul style="list-style-type: none"> • Long term oriented

In developing a vertically integrated medical tourism destination, the collectivistic nature of the Philippines society will ensure compliance with information, data and technology as inability to comply with the information will lead to loss of face for the entire society. Since the society fosters strong relationships where everyone takes responsibility of all the members of the society, there will be strong focus on developing a large number of medical professionals who can take care of their families by finding job opportunities in the medical tourism industry.

There is an oversupply of nurses in the Philippines. Due to this increase in the supply of nurses, the general trend was that these qualified nurses were forced to leave the country to find opportunities in other countries. However in developing Philippines as a medical tourism destination, these nurses can now look for opportunities in the Philippines which will not only take care of their employment but also keep them close to their family which is the core of a

collectivistic society. The inherent nature of the Filipinos which drive them to follow instructions and provide unparalleled care makes Philippines an attractive destination for medical tourism.

Further, the collectivist outlook of the Filipino society requires that a caring culture is prevalent at the workplace and in rendering medical facilities to overseas patients. The Filipinos are known for their warmth and patience. The cultural bias against conflict makes them eager to please and not disappoint patients. Further, the provision of various amenities, perks etc create the perfect environment where the overseas patients feel that they are being taken care of.

A comparison of both the cultures based on the 5-D model shows how cultural and business norms in the two nations would on certain parameters create a perfect environment for Co-opetition. The hierarchical structure in both the society would help them understand each other during Co-opetition. Owing to the collectivistic nature of Singapore, they will make sure that the lesser developed country i.e. Philippines is been taken care of.

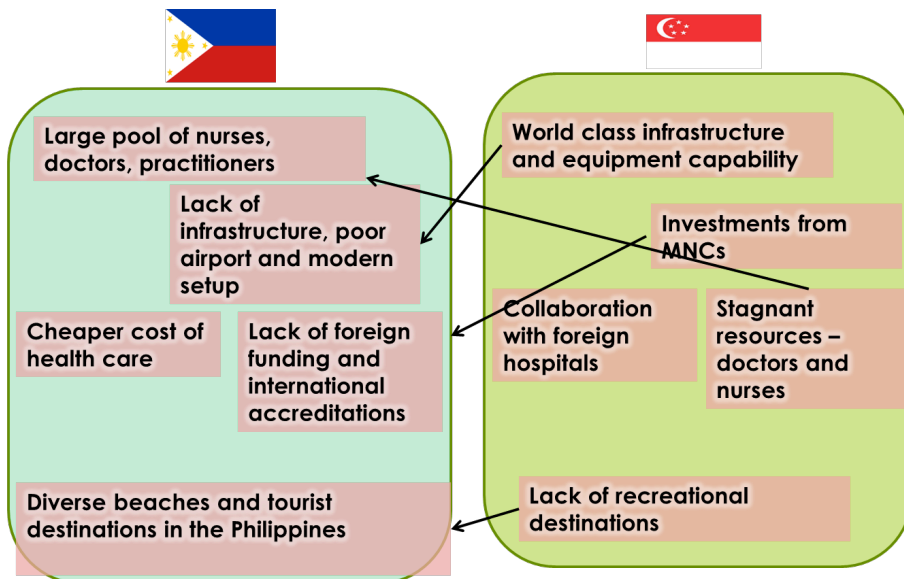
Order

Order represents the resources available in the business system in the form of both social and physical capital. These resources when brought to a common platform leads to collaborative business system. Singapore has been a flagship destination for medical tourism considering its better connectivity and world class advanced healthcare technology. This can be supplemented by the fact that 90% of foreign patients travel to countries like Singapore, Thailand and India. Most of the hospitals in Singapore have JCI accreditation and collaboration with foreign hospitals which help foreign patients travel to Singapore for medical care. This is mainly due to the fact that patients need to take recommendation from their local physicians/doctor to travel abroad for healthcare. Government of Singapore is pragmatic and support investments from MNCs in healthcare industry through open business environment and tax reliefs.

On the other hand, due to limited population and better opportunities in US, EU, Singapore lacks doctors and nurses to cater the growing need of healthcare for patients abroad. Moreover important aspect of medical tourism is the after treatment services which is a consideration for foreign patients while travelling abroad for a longer duration. Singapore lacks recreational destinations in comparison to other places in Asia such as Thailand and Philippines.

Philippines on the other hand lacks infrastructure and advanced medical care setup. St. Luke's is the only hospital in Philippines which has JCI accreditation. For any kind of tourism to flourish, it is important that airport is well constructed as per global standard which unfortunately Philippines lack. Government also inhibits the growth of MNCs. But Philippines has large pool of nurses, doctors and practitioners who can cater to the growing demand of medical tourism in Asia. Culture of Philippines supports the healthcare industry as Filipinos are caring and hospitable in their conduct. Moreover, Philippines offer to be a cheaper destination than other Asian countries such as Singapore and Thailand. Philippines also are a land of serene and beautiful beaches which gives foreign patients added value while travelling abroad for healthcare treatment. The beaches in Philippines are not commercial and provide a platform for patients to relax and rejuvenate after critical treatments such as surgeries. Based on different parameters of order in both countries, St-Lukes Biopolis Park alliance helps each other reduce the impact of undesirable factors as shown in figure below

Order differences between Singapore & Philippines



Coordination

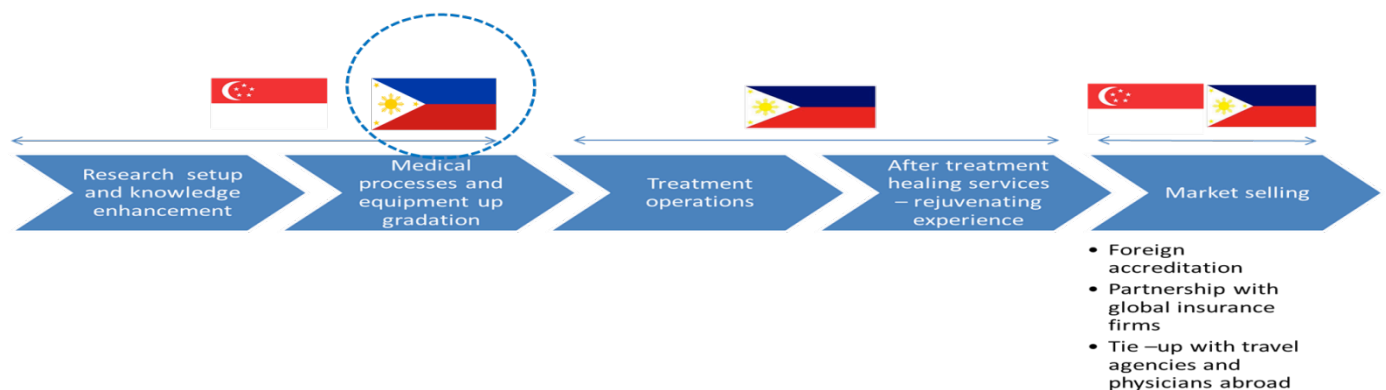
Redding framework not only helps us understand the differences in the culture and order of the society but also helps to utilize these resources in collaborative setup in order to add value to the proposition. Pulling of resources together makes processes efficient and capable of expansion. Alliance between St. Lukes and Biopolis gives opportunity to both parties to grow and develop a niche and vertically integrated healthcare setup. It is important to understand, success of medical tourism doesn't only depend upon the healthcare facilities of the alliance but there are also external factors which need to collaborate in order to develop successful venture. Following are the collaborations, should seek to indulge in:

- Medical Tourism Associations of both nations should promote awareness about the St. Lukes- Biopolis alliance. It is important that both hospitals have tie-up with travel agents and hotels in order for patients to receive exclusive packages customized to their health problem and length of stay. Apart from surgical treatments, other issues such as skin, weight treatments need an environment which supports treatment. This is where associations with travel agents play a handy role.
- It is important that VISA requirements and regulations for foreign patients are fast and similar in the entire ASEAN region. Delays or long process for VISA restricts patients from travelling based on their health condition.
- Biopolis Singapore has foreign accreditation and has associations with many hospitals abroad. Since, patients need to have recommendation from the local hospital, alliance will help St. Lukes seek foreign accreditations and can share the same network as that of the Biopolis
- Knowledge sharing is also a key attribute for the alliance. Doctors and nurses in Philippines lack expertise and familiarity with modern setup. Alliance will lead to free movement of doctors and nurses leading to training them at Biopolis Singapore.
- Philippines medical industry is fragmented between private and public sector. Due to hierarchical structure, government of Philippines lack support for MNCs funding. This is

where joint alliance based on profit sharing between both the hospitals can lead to support from government in terms of tax reliefs etc.

St. Lukes – Biopolis Health Park Value chain (modified)

In the previous value chain, research was taken care by Biopolis independently but since there are many healthcare treatments such as weight loss, skin care treatments where Philippines is a better place for research than Singapore. Find below updated value chain for health park alliance



Added Recommendations

- St. Lukes – Biopolis medical park needs to collaborate with foreign hospitals/physicians for recommendations
- Collaboration with global insurance firms for validity of insurance coverage for foreign patients
- Tie-up with tourism associations/ travel agents to promote awareness and holiday packages for foreign patients for after treatment services

Appendix

St. Luke' Medical Center Fast Facts

Year	Milestone
1903	A free dispensary clinic for the outpatient treatment of the poor was opened by the Episcopal Mission at Calle Magdalena, Tondo, Manila. It was named Dispensary of St. Luke the beloved Physician.
1905	A modest nine-bed ward was opened.
1907	The University Hospital of 30 beds plus eight emergency beds was inaugurated on October 23.
1910	Capacity of the hospital was increased to 52 beds, mostly charity patients.
1912	The University Hospital was renamed St. Luke's Hospital to differentiate it from the University of the Philippines Hospital.
1959	The medical and paramedical team of St. Luke's Hospital moved to its new home in Cathedral Heights, Quezon City. It was a 150-bed hospital with eight suites, 32 bassinets, a recovery room within the operating room, the 1st Philippine Neuro-Psychiatric unit, the first cobalt therapy unit in a private hospital, and a physiotherapy department.
1975	The hospital was spun off into an independent non-stock, not-for-profit corporation governed by a Board of Trustees headed by Atty. William H. Quasha as Chairman, President and CEO.
1984	The Board of Trustees renamed the institution St. Luke's Medical Center.
1986	Mr. Jose F.G. Ledesma was appointed as Executive Director and Dr. Arsenio C. Cantos as Medical Director.
1994	Opening of St. Luke's College of Medicine-William H. Quasha Memorial (SLCM-WHQM)
1996	Mr. Robert F. Kuan was elected as Chairman of the Board of Trustees and Mr. Jose F.G. Ledesma as President and Chief Executive Officer.
2001	St. Luke's became an international affiliate of New York-Presbyterian Hospital, and accorded the honor of being affiliated with the medical schools of Columbia University College Physicians and Surgeons and the Weill Cornell Medical College of Cornell University.
2003	Accredited by the Joint Commission International (JCI). St. Luke's is the first hospital in the Philippines and the second in Asia to get accreditation.
2005	February 1, Ground-breaking for St. Luke's Medical Center-Bonifacio Global City. Signing of Affiliation Agreement with Memorial-Sloan Kettering Cancer Center.



Exhibit 2: Biopolis of Singapore

Shared scientific facilities the Biopolis

Scientists can tap on the scientific resources offered by the Biopolis Shared Facilities (BSF) to save time and costs. BSF is dedicated resources to managing and providing scientific equipment, services and supplies to researchers. Core services, such as glassware washing and media preparation have been operational since end 2004. The media preparation service provides in-house production of a variety of the most commonly used tissue culture and bacterial culture media, while the supply center stocks a wide range of chemical, plastics and glassware that enable users to reduce both purchasing delays and cost. In addition, BSF has a number of scientific platforms coupled with technical expertise support.

Shared Services:

1. Confocal Microscopy
2. DNA Sequencing
3. Flow Cytometry
4. High Content Screening
5. Hispathology
6. Mass Spectrometry
7. Microarray
8. Nuclear Magnetic Resonance
9. X-ray Crystallography



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