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Case Study on the Role of Services Trade in Global Value Chains: Health and Medical Services in Malaysia

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Prepared by:
Shandre Mugan Thangavelu and Sothea Oum
Associate Professor, University of Adelaide and
Senior Lecturer, Asia Growth Research Centre, University of Adelaide

Produced for:
Asia-Pacific Economic Cooperation Policy Support Unit
Asia-Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 6891-9600 Fax: (65) 6891-9690
Email: psugroup@apec.org Website: www.apec.org

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1. INTRODUCTION

Healthcare sector is an important and emerging sector for the development of service competitiveness for the Malaysian economy. It is targeted by the government as an important sector to develop the competitiveness of the Malaysian economy. In the 10th Malaysia Plan (2011-2015), the Malaysian government identified healthcare services as one of the key priority sectors of the 12 National Key Economic Areas (NKEA). The importance of this sector is highlighted to meet not only the social objectives of quality and standard of healthcare for the society, but also in terms of generating economic revenue from the export of health services and medical tourism. Since the 1990s, there have been deliberate attempts by the Malaysian government to reform the healthcare sector by adopting key reforms to develop important healthcare exportable services so that it would serve as a competitive sector in the regional and global production value-chain (GVC).

Traditionally, the healthcare service was provided by the government in order to maintain the "welfare-oriented" policy for the Malaysian economy. In the past years, the government recognized the great potential for the healthcare sector to contribute to the Malaysian growth and competitiveness in the region. In 2010, the Malaysian healthcare sector contributed nearly RM10.1 billion and an annual averaged gross output growth rate of 9.1% in 2007-2010. Within the healthcare sector, the hospitals contributed nearly RM6 billion, followed by general medical at RM2.2 billion and specialized medical at RM683.4 million in 2010 (DOS Malaysia, 2010). The healthcare services sector also created large employment in the economy, registering nearly 77,000 jobs in 2010 and an annual average growth rate of 4.1% in 2007-2010. We also observe strong average positive wages changes of nearly 6.6% in 2007-2010. Given the importance of this sector for the development and competitiveness of the services sector in Malaysia, it is imperative to study the reforms in this sector with respect to the regional and global value-chain activities.

The healthcare system in Malaysia is divided into public and private healthcare. Although the government believes in providing "welfare-oriented" healthcare system for the public sector, there have been deliberate policies to promote private healthcare in the economy since 1996. The key initiatives were launched under the 7th Malaysia Plan from 1996-2000. The key rationale of the economic plan was to improve the resource allocation of the public healthcare

towards poorer segments of the society, as the more well-off segments were directed to "quality" services provided by private healthcare through "out-of-pocket" expenditures.

Since the reforms from the 7th Malaysian Plan, there has been strong growth potential in the healthcare sector. However, the Malaysian economy still faces several key challenges. Firstly, the Malaysian government's expenditure on healthcare was only around an average of 1.9% of GDP for the past decade (2004-2014), which was much lower than the 6% average government expenditure on healthcare for developed economies for the same period. There are also several other key issues directly affecting the healthcare sector such as quality of healthcare services in Malaysia (Nurul et al, 2013). The quality of healthcare services has been affected by the rising cost of healthcare over the years, thus forcing the government to reform the healthcare sector to make it more competitive and affordable for the local people (Saleh et al., 2015; Noorfa et al., 2009; Nicola and Kai, 2011). For example, the Malaysian government over the years has opened up the domestic market for generic and patented drugs to keep the cost of medicines low, which accounted for 75% of the local pharmaceutical market (Inside Malaysia, 2012).

The government is also gradually opening up its medical and health services to global market by developing the healthcare and medical tourism. Although Malaysia lags behind economies such as Singapore and Thailand for medical tourism, there is still much potential for the Malaysian healthcare and medical tourism sectors to grow. In 2010, Malaysia attracted 400,000 health tourists that generated nearly RM 380 million in revenue. Most of the medical tourism came from Indonesia and Singapore that accounted for about 69% and 12%, respectively in 2010. The rest came from Australia, Japan, Middle-East, United Kingdom and the European economies (Inside Malaysia, 2012). Currently, the Malaysian government sets a target to receive around two million medical tourists by 2020.

In this study, we focus on the role of healthcare sector reforms in the Malaysian economy in terms of its medical and health services. In particular, we study the policy reforms of the Malaysian economy to increase the participation of healthcare sector in GVC. We identify good regulatory approaches and best practices for the development of the healthcare sector to effectively participate in the GVC. We also highlight and identify the key lessons of successful reforms for participating in the GVC.

2. KEY MACROECONOMIC INDICATORS FOR MALAYSIA: SERVICES SECTOR GROWTH

Malaysia has experienced strong growth since 2005, with all sectors broadly contributing to the growth of the economy. From 2006-2010, the economy experienced real average growth rate of 4.3%, which increased to nearly 5.3% in 2011-2015. We also observe strong growth in the manufacturing sector, rising from 2.7% in 2006-2010 to nearly 4.8% in 2011-2015. However, we also notice some moderations in the growth of the services sector. The services sector declined from 7.4% in 2006-2010 to nearly 6.3% in 2011-2015.

Table 1A: Real GDP Growth by Sectors in Malaysia: 2006-2015

	Overall GDP	Agriculture	Manufacturing	Construction	Services
2006-2010 (9th Malaysia Plan)	4.3	2.8	2.7	6.2	7.4
2011-2015 (10th Malaysia Plan)	5.3	2.4	4.8	11.1	6.3

Source: Economic Planning Unit (EPU), Prime Minister's Office, Malaysia, various years

The contribution of services sector to the growth of Malaysia is given at Table 1B. In 2015, the services sector contributed 53.8% to the GDP and it remains as the main source of employment with 8.4 million jobs representing 60.9% of total employment. In terms of trade, the exports of services grew at 5.6% per annum comprising 18% of total exports. Malaysia is considered an important source of services export in the ASEAN region and it is also ranked within the top 30 economies in services export in the world. The role of SMEs is very critical in the services sector as it constitutes nearly 90% of the total SMEs in the economy.

Across the specific service sectors, the wholesale and retail trade sector grew at an average of 6.6% backed by strong domestic demand and high tourist arrivals. We also observe the transportation, storage and communication sector expanding with an average growth of 7.3% in 2011-2015. The transportation and storage sector was mainly driven by passenger travel and land transport activities. The finance, insurance and business services sector also grew steadily at 5.3% following vibrant financing activities and capital market.

The government introduced further reform initiatives in the 10th Malaysian Plan in 2012 to liberalize the services sector in terms of attracting foreign investments and increasing the

competitiveness of the Malaysian economy. Under the 10th Malaysian Plan, 18 services sectors were liberalized in terms of foreign equity ownership that allowed up to 100% ownership in sectors such as the wholesale and retail trade services, healthcare, professional services, environmental services, telecommunications, courier and education. In addition, the government undertook several key regulatory reforms to improve competition and business environment in the economy.

Table 1B: Contribution of Services Sector to Real GDP Growth in Malaysia: 2010-2015

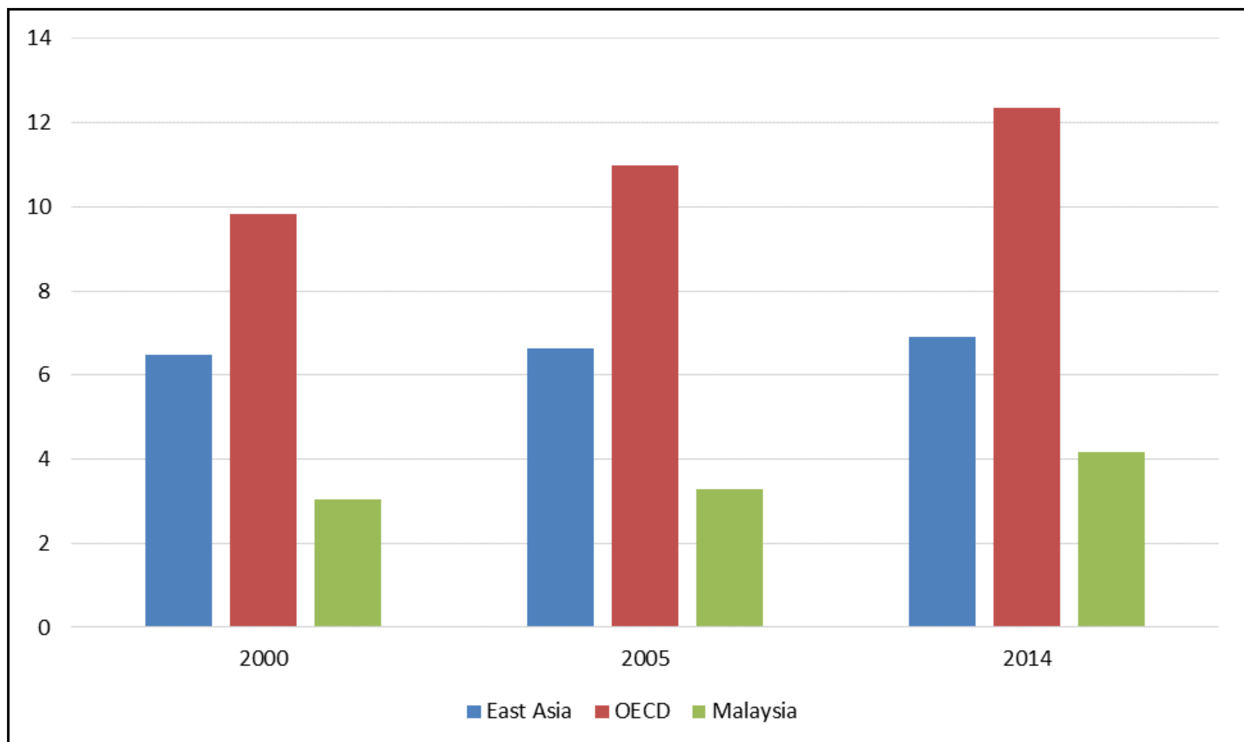
	RM ('000) at 2010 prices		Shares to total (%)		Average growth rate (%)
	2010	**2015**	**2010**	**2015**	**2011-2015**
Labour Productivity of Services (RM/workers)	59,278	68,111	-	-	2.8
Services Export (RM million at current prices)	111,466	146,387	-	-	5.6
Employment ('000)	7.092	8,396	59.3	60.9	3.4
Services Real GDP	420,382	571,835	51.2	53.8	6.3
Sectoral					
Finance, Insurance & Business Services	93,939	121,328	22.3	21.2	5.3
Wholesale, Retail, Trade, Accommodation & Restaurant	134,635	185,410	32.0	32.4	6.6
Transportation, Storage & Communication	68,511	97,363	16.3	17.0	7.3
Electricity, Gas & Water	22,173	27,094	5.3	4.7	4.1
Government Services	64,539	94,152	15.3	16.5	7.9
Other Services	36,766	46,487	8.7	8.1	4.8

Source: Economic Planning Unit (EPU), Prime Minister's Office, Malaysia, various years

3. MALAYSIAN HEALTHCARE SECTOR

Malaysia has a strong and growing healthcare sector with both public and private activities. However, the overall statistics show that Malaysia still lags behind the East Asian and OECD economies in terms of healthcare expenditure per GDP (see Figure 1). From Figure 1, the share of healthcare expenditure per GDP for Malaysia is showing an upward trend rising from 3 percent in 2000 to 4.2 percent in 2014. Although it is showing an upward trend, the healthcare expenditure in Malaysia was much lower as compared to East Asia and OECD economies. In contrast, the share of healthcare expenditure per GDP is showing a stronger trend at 6.9 percent and 12.4 percent in 2014 in the East Asian and OECD economies, respectively. With the rise in middle-income and aging population in Malaysia (and also in Asia), we should expect greater expenditure on healthcare by the Malaysian government to provide more inclusive healthcare for its population.

Figure 1: Healthcare Expenditure per GDP for Malaysia, OECD and East Asia: 2000-2014

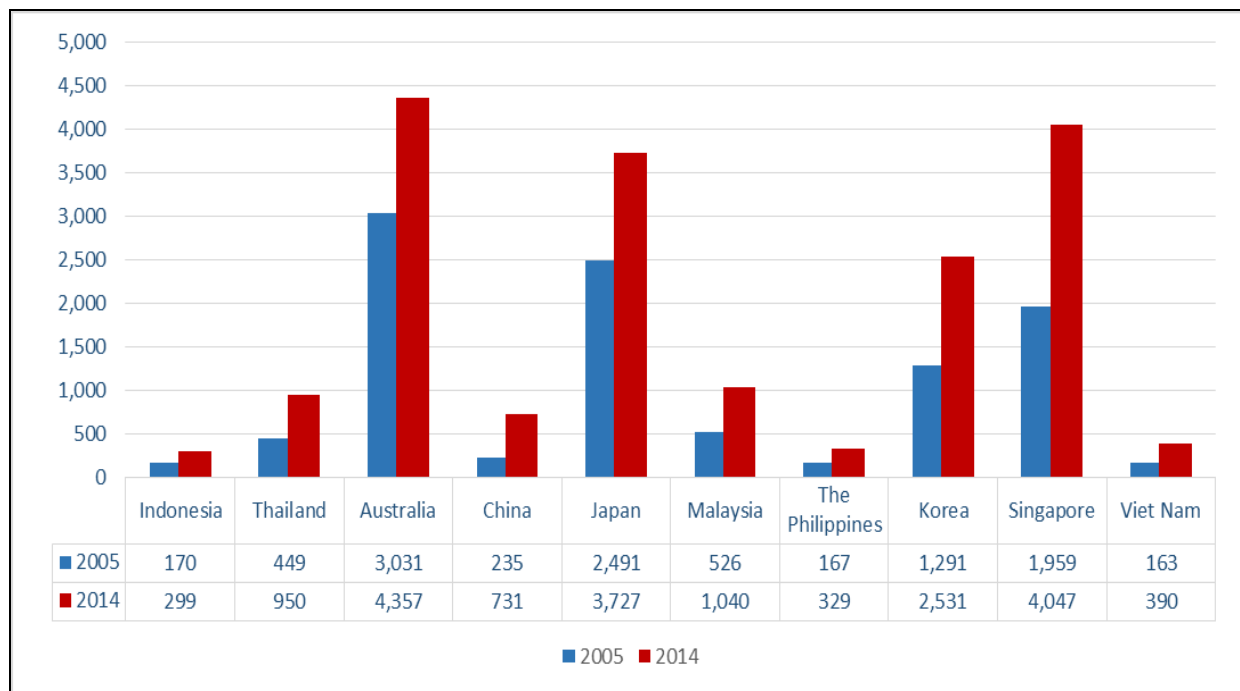


Source: World Bank, World Development Indicators, 2017

The per capita total expenditure on Health (PPP$) is given at Figure 2. The per capita is relatively lower as compared to the more developed Asian economies such as Australia, Japan,

Korea and Singapore. However, it is still higher as compared to the less developed Asian economies of Indonesia, the Philippines, Thailand and Viet Nam. With the increase in aging population, there is greater need and avenue to improve the healthcare services in Malaysia so as to address the healthcare needs of the population.

Figure 2: Per Capita Total Expenditure on Health (PPP$): 2005-2014

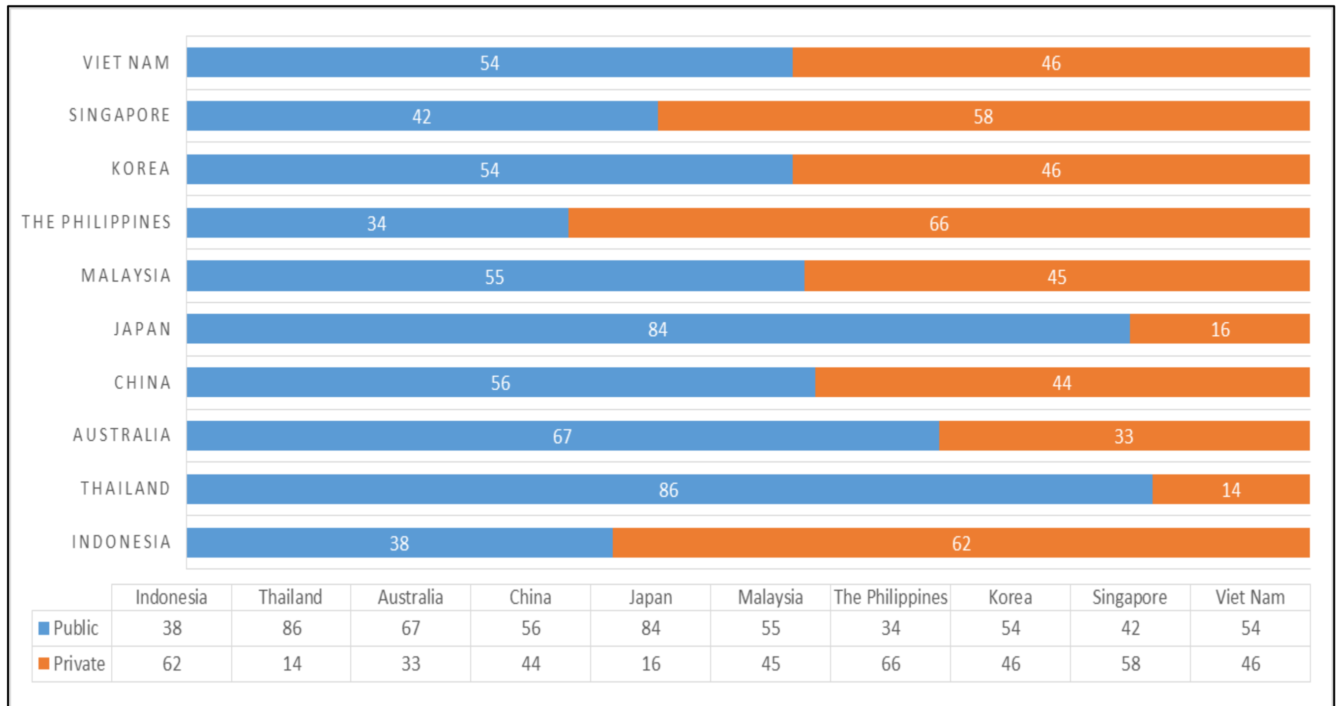


	Indonesia	Thailand	Australia	China	Japan	Malaysia	The Philippines	Korea	Singapore	Viet Nam
■ 2005	170	449	3,031	235	2,491	526	167	1,291	1,959	163
■ 2014	299	950	4,357	731	3,727	1,040	329	2,531	4,047	390

Source: World Health Organization, Global Health Expenditure Database (accessed September 2016)

The share of public and private expenditure to total health expenditure in 2014 is given at Figure 3. The private sector in Malaysia tends to play an important role in the healthcare services sector. The private sector accounted for nearly 45% of the total healthcare expenditure in the economy in 2014, which tends to be similar to other Asian economies of Korea and Viet Nam. However, we observe the share of private expenditure to total health expenditure in Malaysia declining from 49% in 2005 to 45% in 2015 (see Figure 4).

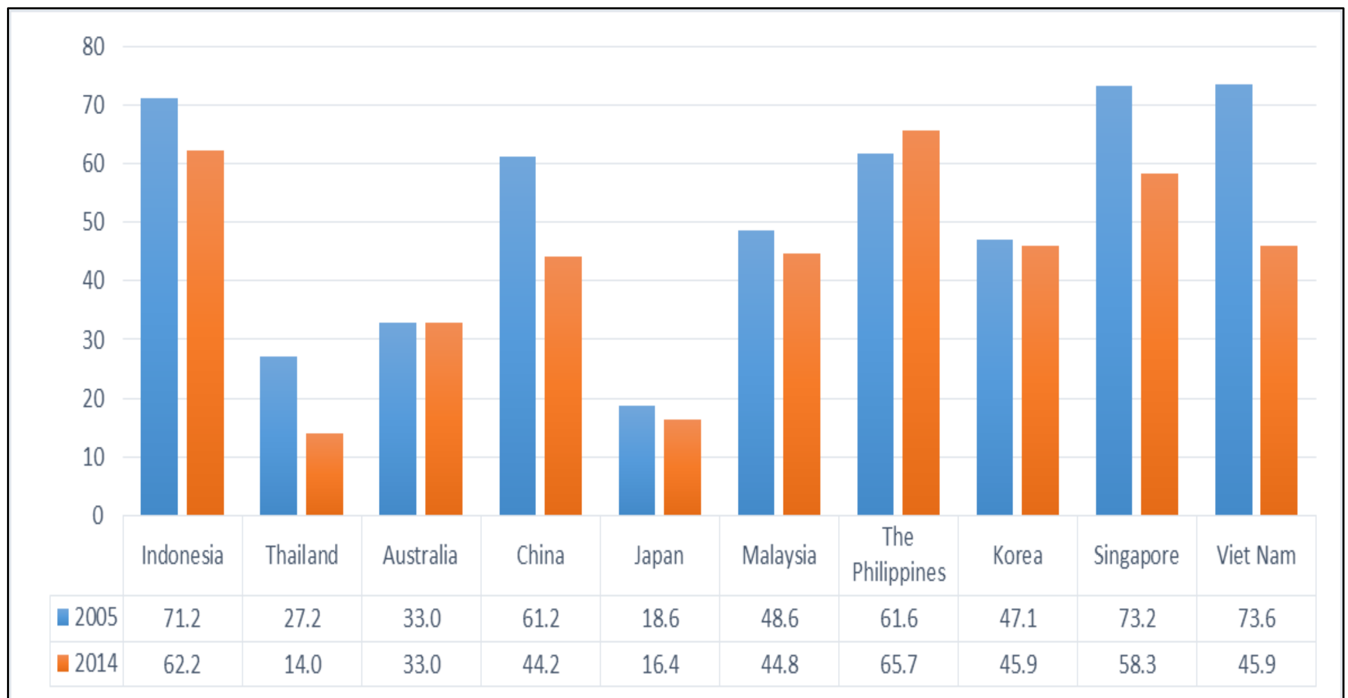
Figure 3: Share of Public & Private Expenditure to Total Health Expenditure: 2014 (%)



	Indonesia	Thailand	Australia	China	Japan	Malaysia	The Philippines	Korea	Singapore	Viet Nam
Public	38	86	67	56	84	55	34	54	42	54
Private	62	14	33	44	16	45	66	46	58	46

Source: World Health Organization, Global Health Expenditure Database (accessed September 2016)

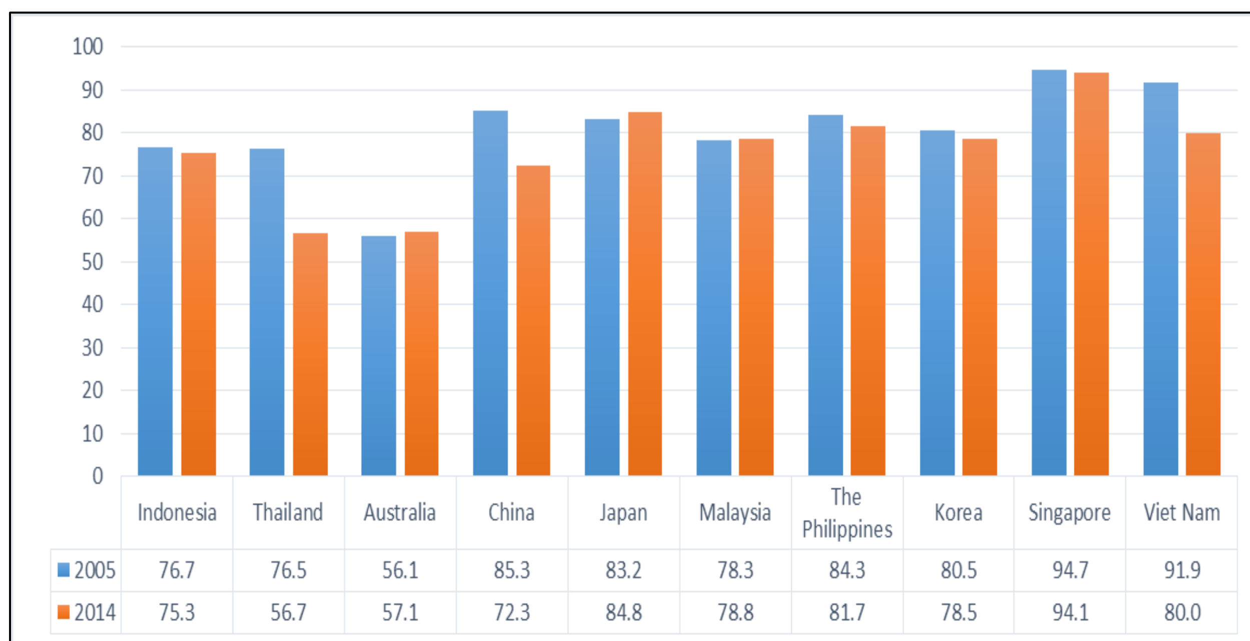
Figure 4: Private Health Expenditure, % of Total Expenditure on Health: 2005-2014



	Indonesia	Thailand	Australia	China	Japan	Malaysia	The Philippines	Korea	Singapore	Viet Nam
2005	71.2	27.2	33.0	61.2	18.6	48.6	61.6	47.1	73.2	73.6
2014	62.2	14.0	33.0	44.2	16.4	44.8	65.7	45.9	58.3	45.9

Source: World Health Organization, Global Health Expenditure Database (accessed September 2016)

Figure 5: Out-of-Pocket Expenditure, % of Total Private Health Expenditure: 2005-2014



	Indonesia	Thailand	Australia	China	Japan	Malaysia	The Philippines	Korea	Singapore	Viet Nam
2005	76.7	76.5	56.1	85.3	83.2	78.3	84.3	80.5	94.7	91.9
2014	75.3	56.7	57.1	72.3	84.8	78.8	81.7	78.5	94.1	80.0

Source: World Health Organization, Global Health Expenditure Database (accessed September 2016)

The out-of-pocket (OOP) expenditure to total private sector health expenditure is given at Figure 5. The share of OOP to total private sector health expenditure was around 78% in 2014 and this is fairly stable as compared to 2005 for the Malaysian economy. The share of OOP is also similar to the other Asian economies such as Korea and Viet Nam, which was around 79% in 2014. Recognizing the importance of the private sector to improve the overall quality of healthcare services and to rationalize the allocation of funds to public healthcare, the Malaysian government allocated more resources to public sector healthcare, and moved more private resources and wealth to the private sector healthcare services and out-of-pocket expenditure.

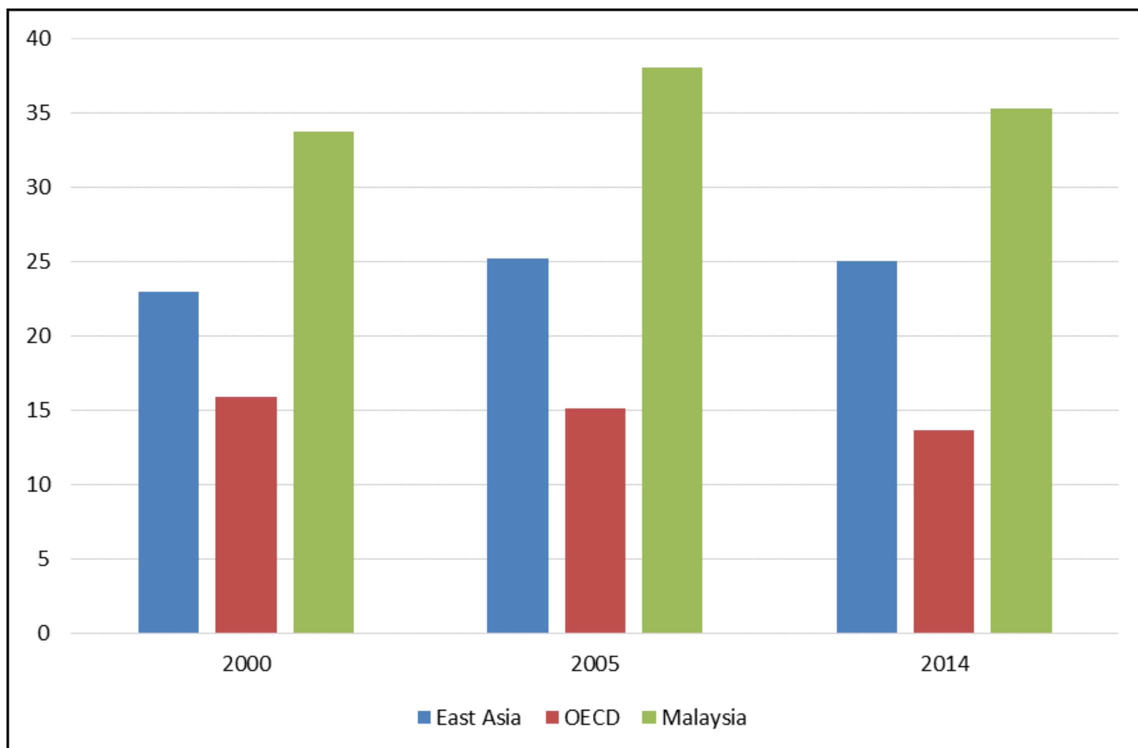
Further, we observe that the private expenditure on healthcare in terms of out-of-pocket expenditure of the total health expenditure is also much higher in Malaysia as compared to the East Asian and OECD economies (see Figure 6). In 2014, the out-of-pocket health expenditure was nearly 34% of the total health expenditure in Malaysia, as compared to 25% and 13% respectively for the East Asian and OECD economies[1]. This high out-of-pocket expenditure reflects the degree of affordability of the average population in accessing key medical services

[1] Out-of-pocket expenditure is any direct outlay by households, including gratuities and in-kind payments, to health practitioners and suppliers of pharmaceuticals, therapeutic appliances, and other goods and services whose primary intent is to contribute to the restoration or enhancement of the health status of individuals or population groups. It is a part of private health expenditure.

in Malaysia. Thus there is an urgent need to manage the high out-of-pocket expenditure on healthcare in Malaysia.

The high out-of-pocket expenditure on healthcare was highlighted by the 7th Malaysian Plan to increase the private sector activities in the healthcare as well as to increase the quality of healthcare and to address the high out-of-pocket expenditure in Malaysia. The recent report on the Health Expenditure by the Ministry of Health highlights that most of the out-of-pocket expenditure on health was mainly directed at hospitals (39%), medical and dental clinics (19%), and pharmaceutical, medical devices and traditional Chinese medicine (TCM) (36%). The report also highlights that private medical insurance only accounted for 7% of the total expenditure on health. In fact, the Ministry of Health accounted for nearly 43% of the total healthcare expenditure in 2013, reflecting the government subsidies in the provision of healthcare in the Malaysian economy (MOH, 2013).

Figure 6: Out-of-Pocket Health Expenditure (% of Total Expenditure on Health) for Malaysia, East Asia and OECD: 2000-2014



Source: World Bank, World Development Indicators, 2017

3.1 KEY TRENDS IN PRIVATE HEALTHCARE SERVICES IN MALAYSIA

There is a growing demand for better quality healthcare as the standard of living in the economy improves, concurrently with the rising aging population in the Malaysian economy. The growing demand for healthcare services is reflected by the number of patients admitted to public and private hospitals as given at Table 2. The number of patients admitted to the public hospitals reflects the importance of public healthcare in Malaysia. The public hospitals took nearly 70% of the patients admitted to the hospitals in the Malaysian healthcare system. The private hospitals tend to be more specialized and cater to more middle- and higher-income households in the economy. The private sector accounted for nearly 29% of the total number of patient admission in 2013, which is fairly stable from 2009-2013. This clearly indicates the importance of private sector healthcare services in providing more specialized and targeted services to middle-income and wealthier population in the economy.

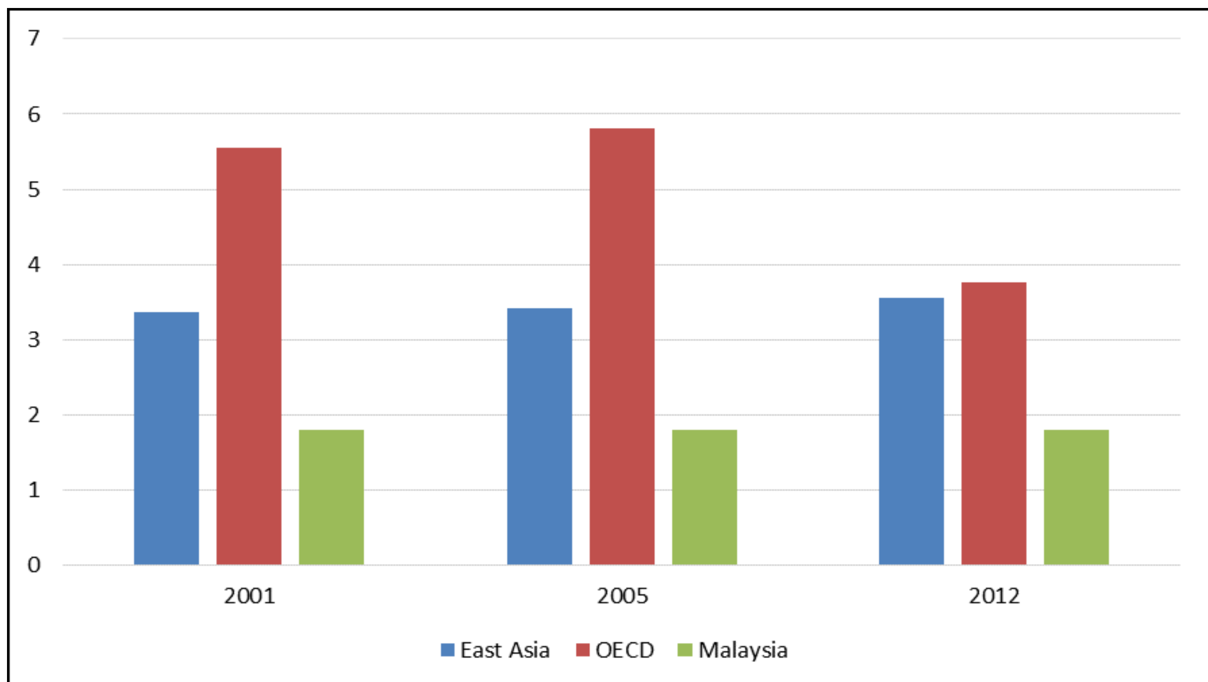
Table 2: Number of Patient Admission by Public and Private Hospitals in Malaysia: 2009-2013 ('000)

	2009	2011	2013
Public	2,228 (71%)	2,382 (72%)	2,507 (71%)
Private	923 (29%)	914 (28%)	1,035 (29%)
Total	3,151	3,296	3,542

Note: Share given in parenthesis
Source: National Healthcare Statistics Initiative (NHSI) (www.crc.gov.my/nhsi)

There are also some concerns with regard to the infrastructure that is available for healthcare, for example the number of hospital beds available per 1,000 population in Malaysia. The number of hospital beds per 1,000 population for Malaysia, OECD and East Asia is given at Figure 7 (includes inpatient beds available at public, general and specialized hospitals and rehabilitation centers). Again, we observe that Malaysia is lagging behind East Asia and OECD in terms of number of beds available for the average population. Although there is a strong push to increase the healthcare facilities by the government since 1996, the healthcare facilities in terms of the number of beds available per population is stagnating and has not increased over the years. In fact, since 2000 the number of beds per 1,000 population has been stagnating at 1.8, which is much lower than the East Asian economies at 3.5 and OECD at 3.8, respectively.

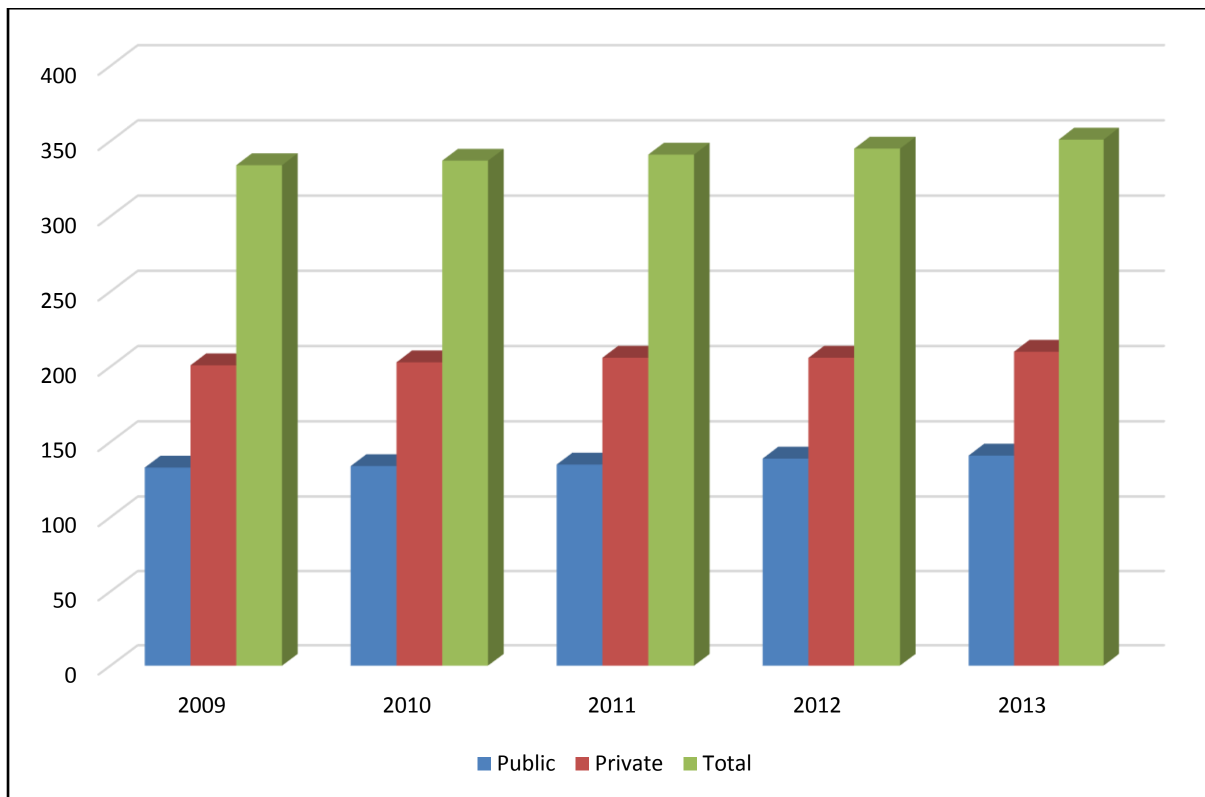
Figure 7: Hospital Beds per 1,000 People in Malaysia, OECD and East Asia: 2001-2012



Source: World Bank, World Development Indicators, 2017

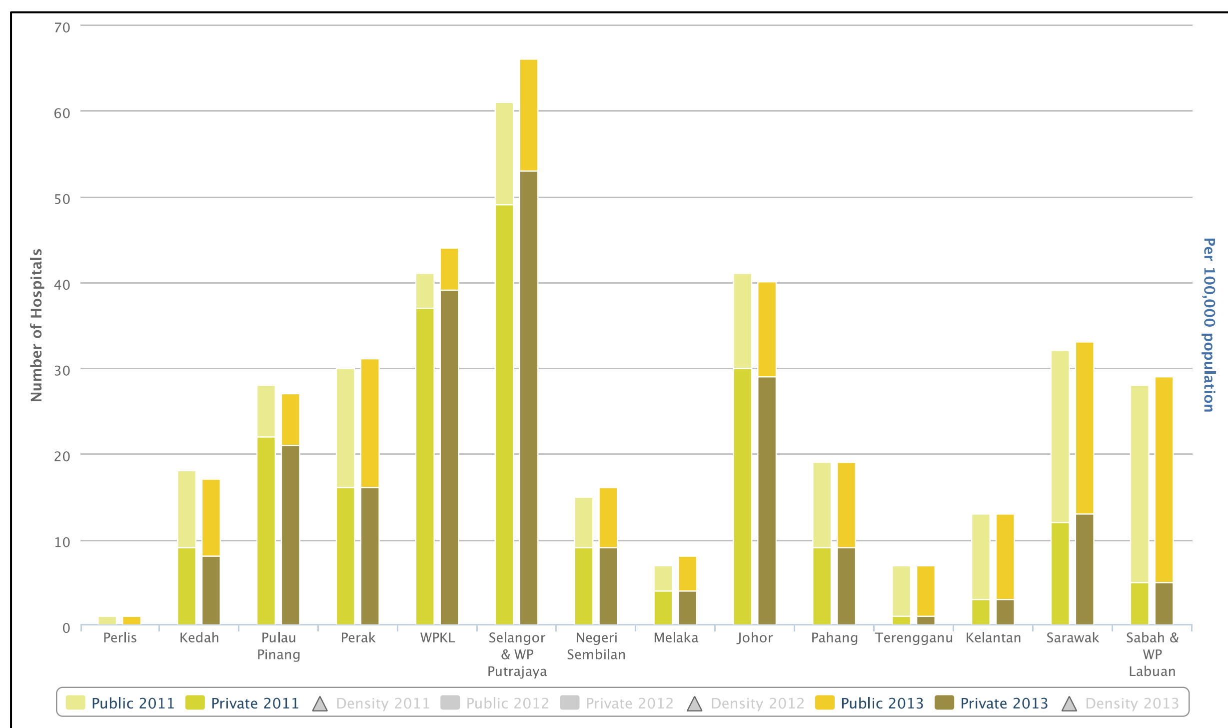
The Malaysian healthcare sector is driven by public and private healthcare providers. Since 1996, the government has increased the role of the private sector to improve the quality of healthcare services by differentiating the public and private healthcare providers. This led to an increase in the number of private healthcare providers in the Malaysian economy and they are playing an important role in maintaining the quality and providing cost-effective healthcare in Malaysia. The number of public and private hospitals in Malaysia is given at Figure 8. The number of private hospitals in Malaysia was around 210 in 2013, as compared to only 134 public hospitals in 2013.

Figure 8: Number of Public and Private Hospitals in Malaysia: 2009-2013



Source: National Healthcare Statistics Initiative (NHSI) (www.crc.gov.my/nhsi)

Figure 9: Number of Hospitals by States in Malaysia: 2011-2013

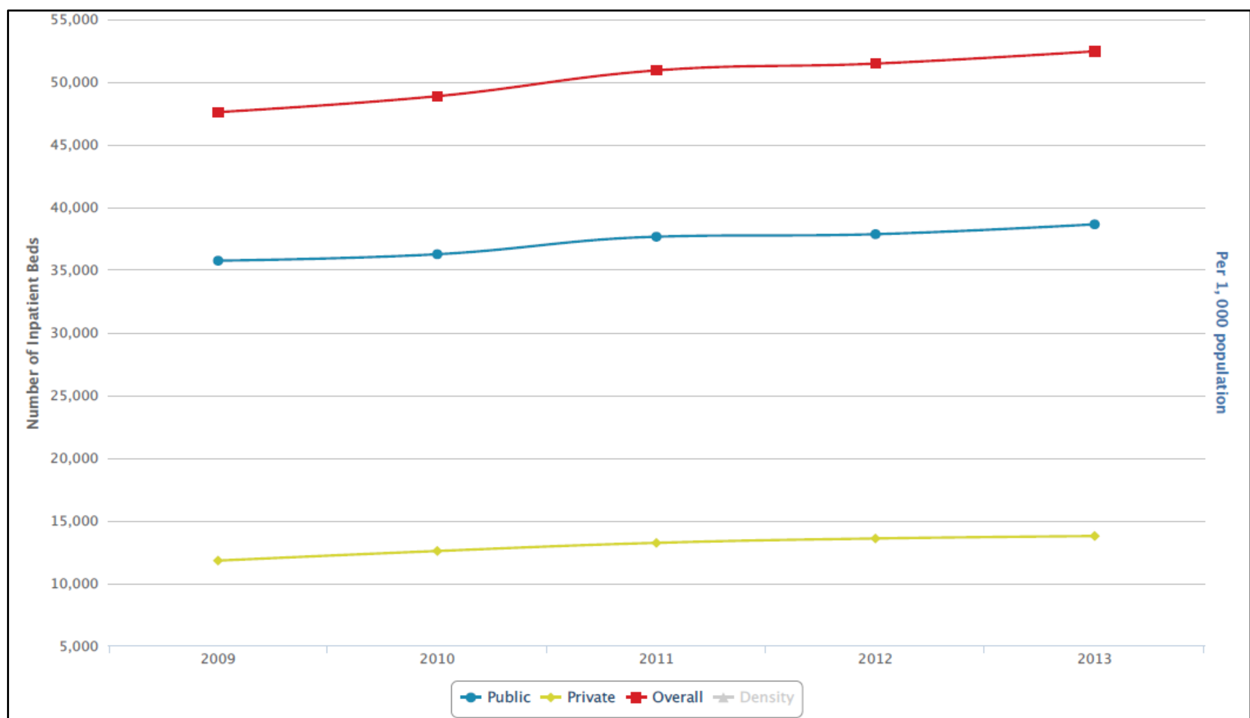


Source: National Healthcare Statistics Initiative (NHSI) (www.crc.gov.my/nhsi)

There are also regional differences in the provision of healthcare in Malaysia. The number of hospitals by states is given at Figure 9. It is clear that the distribution of hospitals across the states are based on household income and demographics of the respective states. For example, poorer states such as Perlis have few public and private hospitals. In contrast, wealthier states with higher income households such as Selangor and Putrajaya tend to have more public and private hospitals, in particular a larger number of private hospitals.

The number of hospital beds is given at Figure 10. Public hospitals tend to provide more beds per 1,000 population as compared to private hospitals. It is very likely that the private hospitals are more specialized than public hospitals. This might also be due to the degree of specialization at the private hospitals that target higher income individuals and also provide more specialized and quality healthcare for these individuals. This clearly reflects that liberalization and opening up of healthcare services to the private sector have led to better resource allocation in terms of (a) public hospitals providing for poorer segment of the society, and (b) tendency of private hospitals to specialize and providing to wealthier segment of the population.

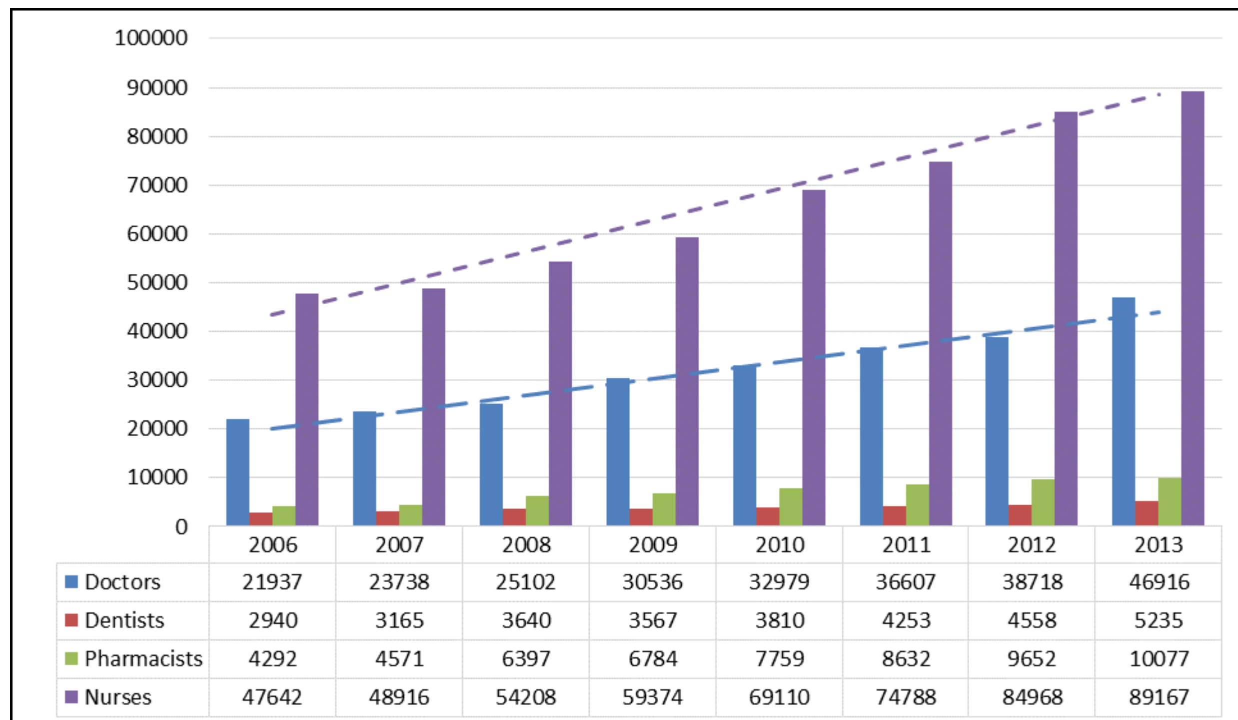
Figure 10: Hospital Beds, per 1,000 Population in Malaysia: 2009-2013



Source: National Healthcare Statistics Initiative (NHSI) (www.crc.gov.my/nhsi)

The manpower for the medical professionals for Malaysia is given at Figure 11. The trend clearly shows that the number of nurses has doubled in size in 2013 as compared to 2006. We also observe a gradual growth of doctors since 2009, doubling that of the number observed in 2006. However, the most significant growth is observed with the pharmacists, which grew at a rate of nearly 20.8% from 2006-2013. The strong growth in the medical professional manpower clearly reflects the foreign manpower policies adopted by the Malaysian government to allow more foreign medical professionals to enter the labour market under the skilled and semi-skilled categories of the foreign manpower quota. The Talent Corporation was set up under the Prime Minister's Office to directly address the manpower issues related to local and foreign worker needs of the economy. This clearly shows that the government is adopting more liberal policies to allow more skilled foreign labour to support of the growth of the medical services sector. We also observe a stronger growth in the number of nurses as compared to the number of doctors. Again, this might be due to the government's foreign manpower policy to allow more nurses into the medical sector as compared to doctors. Another reason is because doctors are required to meet more stringent medical and professional requirements.

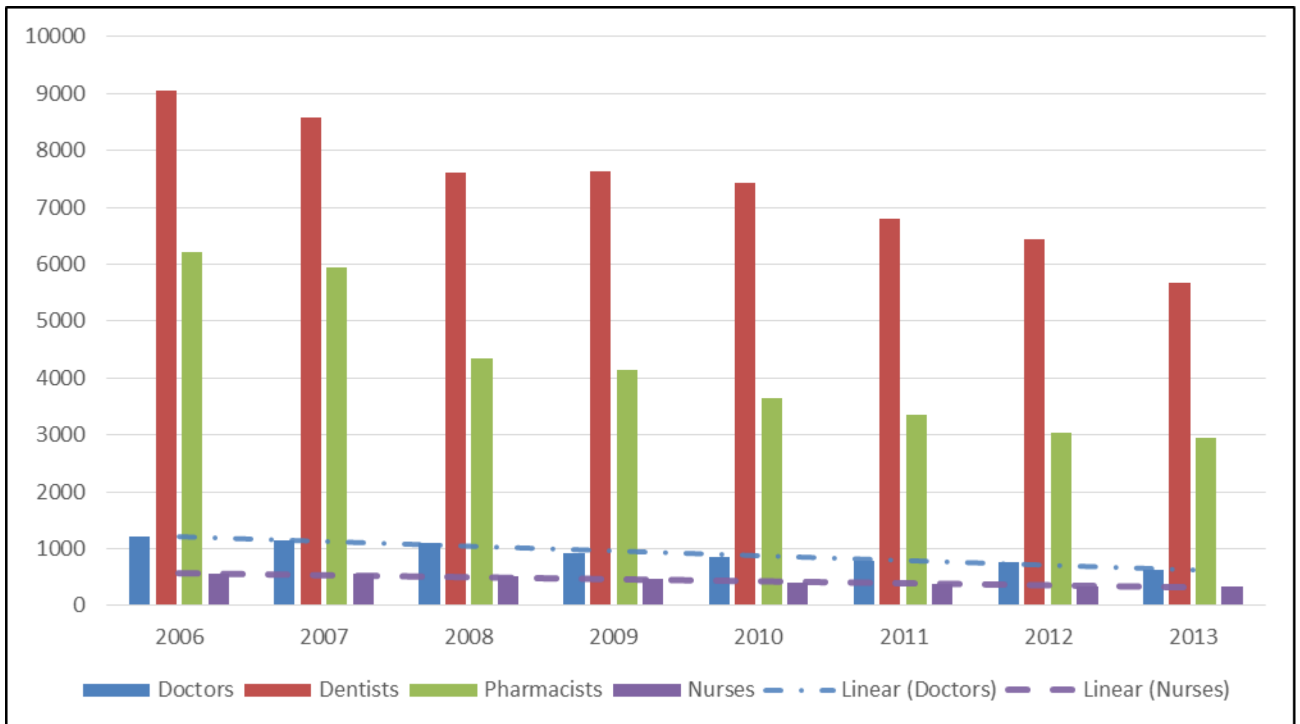
Figure 11: Manpower in Healthcare at Malaysia: 2006-2013



	2006	2007	2008	2009	2010	2011	2012	2013
Doctors	21937	23738	25102	30536	32979	36607	38718	46916
Dentists	2940	3165	3640	3567	3810	4253	4558	5235
Pharmacists	4292	4571	6397	6784	7759	8632	9652	10077
Nurses	47642	48916	54208	59374	69110	74788	84968	89167

Source: Ministry of Health (MOH) Health Fact 2006-2013

Figure 12: Medical Manpower per 1,000 Population in Malaysia: 2006-2013

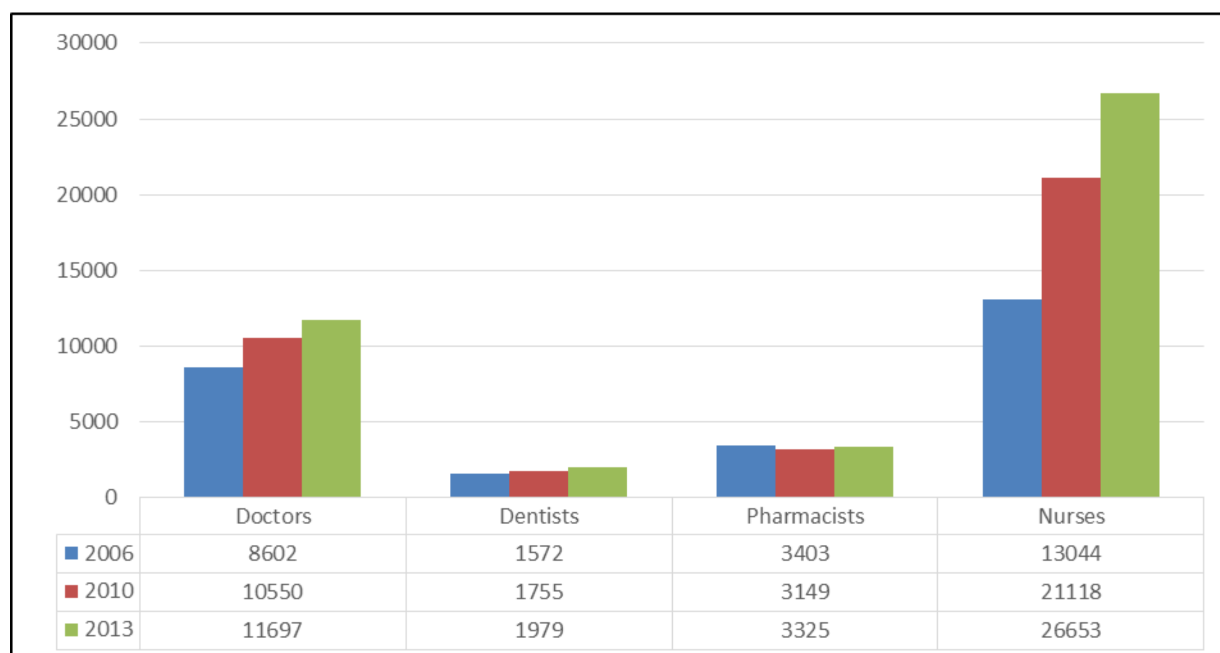


Source: Ministry of Health (MOH) Health Fact 2006-2013

The trend of medical manpower ratio to population ratio is given at Figure 12. There is a strong declining trend in the number of medical manpower to population ratio even as the number of medical professionals increased in the Malaysian economy. We observe a significant decline in the ratio for doctors, with the ratio declining from 1,214 doctors in 2006 to nearly 633 doctors in 2013. A similar trend is also observed in the ratio for dentists and pharmacists.

The manpower of medical professionals in the private health sector is given at Figure 13. In the private hospitals, we observe a stronger growth in doctors and nurses as compared to pharmacists and dentists. The growth of nurses was very strong in the private hospitals, where the numbers more than doubled in 2013 as compared to 2006. In contrast, the growth of doctors was moderately slower at a growth rate of nearly 5 percent. The strong growth in the manpower for doctors and nurses again might reflect the more liberal foreign manpower policy of the government to fill up the skills manpower shortages in the medical profession in Malaysia.

Figure 13: Manpower of Medical Professionals in Private Hospitals in Malaysia: 2006-2013



Source: Ministry of Health (MOH) Health Fact 2006-2013

The private medical fees in Malaysia for doctors and selected medical service are given at Table 3. The medical fees reflect the changes after 2012. The government regulates the private medical fees based on the Private Hospitals and Other Private Healthcare Facilities Regulation 2006 that provides the maximum chargeable fees for registered medical and dental practitioners practicing in private hospitals.

Table 3: Medical Fees in Malaysia

	Before 2012 (RM)	After 2012 (RM)
Consultation (general practitioner)	RM10-RM35	RM30-RM125
Consultant (specialist)	RM60-RM180	RM80-RM235
Dental consultant	RM25-RM250	RM30-RM285
Medical examination	RM40-RM200	RM45-RM230
Caesarean delivery	RM2,365 (surgeon and anesthetist)	RM2,710 (surgeon and anesthetist)
Mammogram	RM200	RM230

Source: Malaysian Medical Association, e-Federal Gazette, Article in The Star Online[2]

[2] The Star Online, Medical schedule shows hikes of more than 200%, 6 March 2014, http://www.thestar.com.my/news/nation/2014/03/06/fees-up-and-its-dizzying-medical-schedule-shows-hikes-of-more-than-200/

4. MALAYSIAN HEALTHCARE REGULATIONS

The Malaysian healthcare system consists of dual track: public and private sector healthcare providers. The responsibility of regulating the public and private healthcare services is under the management of the Ministry of Health. In addition, the Ministry of Education provides three teaching hospitals linked to public medical schools that train medical professionals in hospital services and are responsible for the training of healthcare personnel and medical research. The other key government agencies involved in healthcare management are: (a) Ministry of Defence that maintains health facilities for the needs of armed forces personnel and their families; (b) Department of Aboriginal Affairs of the Ministry of Housing and Local Government that provides environmental health services within local council boundaries; (c) Department of Social Welfare at the Ministry of Women, Family and Community Development that provides long-term care for the old-aged at the welfare homes; and (d) Ministry of Home Affairs that manages several drug rehabilitation facilities in the economy.

Table 4: Occupational Licensing of Healthcare Professionals in Malaysia

No.	Professions	Acts & Regulations	Regulators	Licensing
1	Medical Practitioner (Doctors) & Specialists	Medical Act 1971 (Act 50)	Malaysian Medical Council	Registration & Annual Practicing Certificate
2	Dentists	Dental Act 1971 (Act 51)	Malaysian Dental Council	Registration & Annual Practicing Certificate
3	Nurses	Nurses Act 1950 (Act 14) & Nurses Registration Regulations 1985	Malaysia Nursing Board	Registration & Annual Practicing Certificate
4	Midwives	Midwifery Act 1966 (Act 436)	Malaysia Midwife Board	Registration & Annual Practicing Certificate
5	Pharmacists	Registration of Pharmacists Act 1951 (Act 371) & Registration of Pharmacists Regulations 2004	Malaysia Pharmacy Board	Certificate of Registration & Annual Retention of Registration
6	Medical Assistants	Medical Assistants (Registration) Act 1977 (Act 180)	Medical Assistants (Registration) Board	Annual Certificate of Registration
7	Opticians & Optometrists	Optical Act 1991 (Act 469)	Malaysian Optical Council	Registration & Annual Practicing Certificate
8	Allied Health Professionals (32 categories)	Bill has been drafted.		Registration required by 2011.

Source: Malaysian Productivity Corporation (MPC), 2014

The key objectives of the Ministry of Health are directed to the provision of equitable, accessible and quality healthcare services in the Malaysian economy. The Ministry of Health regulates the healthcare system in terms of (a) regulating private healthcare facilities, and (b) regulating the medical profession (See MPC, 2014).

The regulation of medical professionals is undertaken through the Occupational Licensing of Healthcare Professionals. The list of regulations for healthcare professionals is given at Table 4. The healthcare professionals are required to be registered formally and apply for licenses to practice with the regulators. The license has to be renewed annually and the healthcare professionals are required to show continuous professional development as part of the requirement for renewing the license. The key idea of the license is to ensure only competent professionals with adequate qualifications and experience practice and provide quality healthcare in the system.

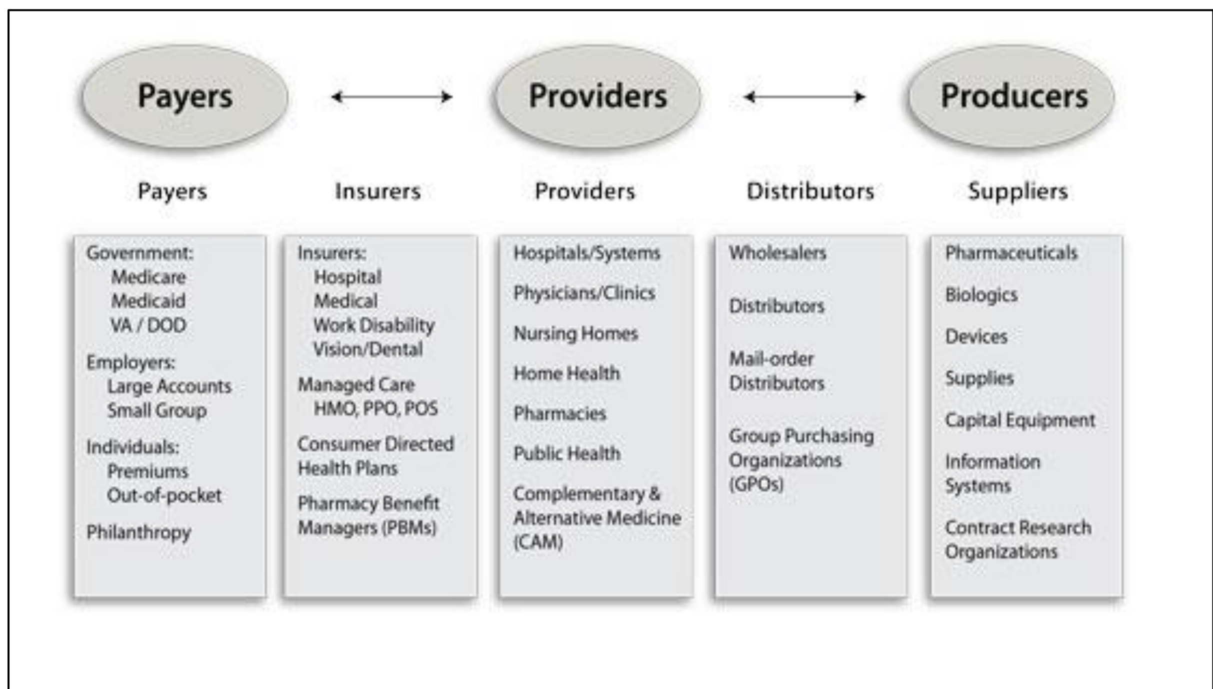
The regulation of private healthcare facilities including the private hospitals is covered under the Private Healthcare Facilities and Services Act 1988 (Act 586) (improved on the Private Hospital Act 1971). The regulating bodies are again the Ministry of Health and local state authorities. The healthcare providers including hospitals are required to apply for licenses. The establishment of private hospitals requires that the Ministry of Health and local authorities approve the structure and facilities of the hospital. Under the Act, there is a requirement for private hospitals and other private healthcare facilities to meet the minimum acceptable standards and required private healthcare safety. The key objective of the Act is to ensure the safety and quality of healthcare services. Aside from the above two key regulations, the list of regulations for the operations of the private hospitals is given in the Annex. The list of Ministry of Health agencies involved in the regulation is also given in the Annex.

There are several concerns raised with regard to healthcare in Malaysia in terms of the rising cost of healthcare, productivity and efficiency of the hospitals, and gaps in the quality care between private and public hospitals (MPC, 2014). Recent directions adopted by the Ministry of Health in the 10th Malaysia Plan, highlighted six key directions: (a) competitive private sector as key driver of quality of healthcare services; (b) productivity and innovation through knowledge-economy; (c) creative development of human capital with 21st Century skills; (d) inclusiveness in bridging the development gap; (e) improvement of quality of life; and (f) government as effective facilitator.

5. HEALTHCARE SERVICES VALUE-CHAIN IN MALAYSIA

The concept of healthcare (services) value chain consists of services linkages between various stakeholders supporting upstream and downstream activities in the healthcare sector. For example, companies selling healthcare products, providers who utilize the products in patient care, healthcare providers, healthcare consumers such as patients, insurance companies, distributors of health products, pharmaceutical producers and suppliers and wholesalers are linked in the upstream and downstream activities in the provision of healthcare services (see Figure 14). It is important to highlight that the healthcare value chain is affected by regulations set by policymakers to protect the well-being of consumers and to maintain a cost-effective healthcare system in the economy. This social dimension is important in defining and differentiating the value chain activities across economies.

Figure 14: Healthcare Value Chain



Source: Lawton, The Business of Healthcare Innovation, 2012

Based on the balance between cost competitiveness and equitable provision in the healthcare sector, the need for reforms in the healthcare value chain is to achieve sustainability while ensuring equitable access to healthcare for the population, quality, and efficient use of resources (Benavides, 2013).

The pathways to achieve such reforms are influenced by the interaction of internal factors (economic policy environment influencing public health sector policy reforms, domestic market structure, institutional and physical infrastructures, regulatory framework, and resource endowments including the number of qualified human resources and state-of-the-art healthcare technologies) and external factors (impact of globalization on healthcare markets and process of liberalization of trade in goods and services).

An export strategy is important to: (i) generate fresh financial resources from external demand and to overcome or reduce the fiscal deficit created by the need to grant universal health coverage; (ii) improve equity, efficiency, and quality standards in the delivery of healthcare; and (iii) upgrade the health infrastructure of hospitals and other complementary structures as well as technologies and skills. A crucial element of any successful export strategy is to seek the optimal use of forward and backward interlinkages between domestic production and external markets of healthcare services, in order to foster the development of a competitive supply of healthcare services and a sustainable healthcare sector.

The strategy requires: (1) Regulatory reforms applied to public health institutions and their performance; development and management of the health infrastructure; application and use of health technologies; legal entity; competition rules; and prudential measures to protect the integrity of public health and medical practice. (2) Policy measures and mechanisms to promote and support the development of health enterprises such as tax incentives and duty waivers, development programs to strengthen the competitiveness of the small and medium-sized enterprises in health, financial schemes, and grants to create or upgrade supply capacity; and direct subsidies to support the economic performance of health enterprises. (3) Trade agreements to enlarge market access and the dismantling of trade barriers, and to liberalize health services in both bilateral and multilateral agreements.

6. HEALTHCARE POLICY AND PRIVATIZATION OF THE HEALTHCARE SECTOR

There were several important policy initiatives adopted by the Malaysian government to develop and promote private sector activities in the healthcare services sector. We highlight the key reforms undertaken by the Malaysian government on the overall economy and the healthcare sector from 1990-2015 in terms of the various Master Plans. The key reforms undertaken by the government are summarized at Table 5.

6.1 SETTING STRATEGIC FRAMEWORK FOR REFORMS (1996-2015)

The role of the government in coordination and developing strategic directions for liberalization and privatization is one of the key strengths of the Malaysian economic reforms. The reforms for privatization were mainly driven by the Economic Planning Unit (EPU) at the Prime Minister's Office. The key reforms were complemented and reinforced in each Master Plan that was introduced every five years.

The 7th Master Plan was important to set the stage for the privatization of healthcare sector and to open up the sector for private sector participation. The government recognized the importance of the private sector in the healthcare development in the Malaysian economy. In the early 1990s, the importance of the private sector to create competition and innovation in the healthcare sector was established as one of the key priorities to keep the cost of healthcare low and also to improve the quality of healthcare services in the economy. The 7th Master Plan identified healthcare sector as one of the key priority sectors for privatization through private ownership. Under this Plan, there was a general shift towards the policy and regulatory role of the Ministry of Health so as to ensure quality, affordability, and inclusiveness of healthcare services. The government identified 149 agencies including 12 hospitals for privatization in Peninsular Malaysia. In 1998, the government passed a key regulation to provide the legal framework for privatization of the healthcare sector in Malaysia with the Private Healthcare Facilitation and Services Act 1998 (Act 580). Although passed in 1998, the Act was only implemented in 2006 after the issuance of Private Healthcare Facilitation and Services (private hospitals and other private healthcare facilities) Regulation 2006. This regulation provided the

licensing and regulation framework of private hospitals and healthcare facilities to ensure minimum standards for patient safety, upholding of patient rights, and assurance of quality of care.

Based on this Master Plan, the private hospitals (profit-based private healthcare facilities) expanded from 174 in 1992 to nearly 250 in 2013. Private healthcare providers used this opportunity to consolidate their operations and increase their economies of scale such as Parkway Holdings and Pantai Holdings. The investment arm of the government, Khazanah holdings, increased its healthcare investment and activities through India's Apollo Hospital chain.

Table 5: Key Healthcare Sector Reforms in Malaysia 1996-2015 - Privatization of Healthcare Sector

	Objectives	Healthcare Reforms
7th Malaysian Plan (1996-2000)	• Reduce the role of the government • Private sector as another engine of growth • Private sector to drive productivity and structure for quality and efficiency of service delivery	• Reduce the role of government in the provision of health services and increase its regulatory and enforcement functions • Passing of the Private Healthcare Facilitation and Services Act 1998 (Act 580) – providing the legal framework for private sector activity • Implemented in 2006 after the issuance of the Private Healthcare Facilitation and Services Regulation 2006 – provided the licensing and regulation framework of private hospitals and healthcare facilities to ensure minimum standards for patient safety, upholding of patient rights, and assurance of quality of care
8th Malaysian Plan (2001-2005)	• Sustainable growth with resilient domestic economy • Structural transformation to knowledge-driven economy that is driven by productivity and innovation • Emphasize the role of private sector • Role of government as a facilitator	• Privatization of hospital services: cleaning, clinical waste management, bio-medical equipment maintenance, facility maintenance, linen & laundry services • Privatization of medical stores facilitating local manufacturers • Identifying the shortages of healthcare professionals – increase training, university intakes, skilled

	Objectives	**Healthcare Reforms**
	Importance of Aviation Hub and increase tourism activities – start to identify healthcare-tourism • Emphasize Air, Surface and Sea transportation deregulation and upgrade infrastructure • Expand Malaysian airport (KLIA) as a regional hub • Increase tourism activities – procedures to instill "hassle-free" travel and create safety and security for travelers	and semi-skilled healthcare professionals • Start to identify healthcare-tourism • Set up a small unit to promote medical tourism industry in the Ministry of Health
9th Malaysia Plan (2006-2010)	• Improve the standard and sustainability of quality of living – create sustainable and inclusive growth • Human capital development – educational reforms and vocational training • Knowledge-driven economy – emphasize innovation, R&D and SME development • Increase the pace of privatization • Creating Aviation Hub and the framework that links two services sectors – health and tourism • Creating the framework for Health-Tourism • Developing low cost carrier terminal (LCCT) as the first budget terminal in Kuala Lumpur in 2006 • Introducing in 2009 the autonomous liberalization framework of key sectors	• Enhance healthcare delivery system and treatment • Formalize health-tourism concept by linking tourism sector and health sector • Create the framework for joint traditional and modern medicinal practices at hospitals – complementary medical practices • Identify the skills mismatch in the healthcare sector – training of healthcare professionals through the continuing professional development (CPD) programs • Increase the training of healthcare professionals at the universities • Increase foreign skilled and semi-skilled manpower in the healthcare sector • MHTC to become an agency under the Ministry of Health Malaysia in 2009
		• Traditional and Complementary Medicine Council set up to maintain the standards and quality of traditional medicine and also to integrate traditional medicine into mainstream medical practices • The Malaysian Society for Quality in Health (MSQH), formed with the initiative of the government, is a non-profit organization consisting of the private and public sectors that work actively to promote the quality of healthcare professionals

	Objectives	Healthcare Reforms
10th Malaysia Plan (2011-2015)	• Improve the competitiveness of the economy – private sector as the engine of growth • Knowledge-based economy – importance of productivity and innovation for growth • Innovative and creative human capital with 21st Century skills • Inclusiveness in bridging the development gap • Quality of life as an advanced nation • Government as a facilitator of services • Identify 12 National Key Economic Areas (NKEAs) for growth – Health and Tourism identified as key sectors for growth Other key initiatives during this period: • Talent Corporation set up in 2011 under the Prime Minister's Office to attract and retain skilled workers in Malaysia • Setting up of Critical Skills Committee to assess the skills requirement in the economy and sectors – increase and manage the flow of appropriate skilled and semi-skilled workers into the economy	• See Table 6 for the autonomous reforms in healthcare privatization introduced in 2012 • Increase innovation and R&D in clinical laboratories – setting up of Clinical Research Malaysia (CRM) at the Ministry of Health to spearhead clinical research • Increase in funding for clinical labs at the universities • Ministry of Health introducing Healthy Living and Lifestyles, Health Promotion Campaigns • Ease restrictions in terms of quotas (restrictions on the number of foreign employment to local employment) – enable private sector to source for best talent to work in the healthcare sector • Mandatory private health insurance for foreign workers • Create a diagnostic services nexus to create scale in Telemedicine through connectivity and infrastructure • Create a Global Healthcare Metropolis through innovation and R&D, connectivity and human capital • Medical Device Regulation Act 2012 – setting up of Medical Device Authority under the Ministry of Health

Source: Compiled by authors based on information from Economic Planning Unit (EPU), Prime Minister's Office, Malaysia (http://www.epu.gov.my/en/development-plans/previous-plans)

The pace of liberalization was reinforced and complemented by the government in each and subsequent Master Plan. In the 8th Master Plan, the government privatized and outsourced the nonclinical healthcare services from the core activities of the hospitals such as cleaning, clinical waste management, bio-medical equipment maintenance, facility maintenance and line and laundry services. This has allowed the hospitals to specialize in their core activities and also increased the opportunities for private sector participation (especially the SMEs) in the activities of the healthcare sector.

The 9th Master Plan from 2006-2010 emphasized the development of key infrastructure and human capital needed for improving the quality of healthcare in the economy. It created the

Aviation Hub and framework that linked the two key services activities of healthcare and tourism in the economy to make it more exportable: healthcare tourism. To facilitate the necessary infrastructure for greater movement of tourists in the economy, the government developed the low cost carrier terminal (LCCT) as the first budget terminal in Kuala Lumpur in 2006.

Under this Master Plan, the government also created the framework for joint traditional and modern medicinal practices at the hospitals. In addition, the government identified the critical skills mismatch in the healthcare sector and created the framework for improving professionalism in the sector through accredited training of medical staff and professionals. The government also improved the teaching facilities at the universities and increased the intake of healthcare staff and professionals at the medical schools. During this period, the government increased the foreign skilled and semi-skilled professionals in the healthcare sector to meet the demand for healthcare services in the economy.

6.2 INCREASING THE ROLE OF PRIVATE SECTOR AS DRIVER OF HEALTHCARE SERVICES

The 10th Master Plan from 2011 to 2015 was very crucial for sustaining the momentum of privatization reform in the healthcare sector. The government identified 12 National Key Economic Areas (NKEAs) for sustainable growth for the next phase of development for Malaysia. Under the 12 NKEAs, health and tourism sectors were identified as the key and priority sectors of growth for the Malaysian economy. The government initiated the autonomous reform initiatives that included consultation and recommendations from the private sector in the reform agenda. The autonomous reform agenda was a "bottom-up" approach to guide and identify the key reforms needed for the overall and respective sectors. The government embarked on autonomous liberalization of 18 subsectors and improved the ease of doing business to further boost investment and productivity (EPU, Strategy Paper 18, 2014[3]). The key autonomous reforms for the healthcare sector are provided at Table 6.

[3] Economic Planning Unit (EPU), Prime Minister's Office, Eleventh Malaysian Plan, Strategy Paper 18: Transforming Services Sector, http://rmk11.epu.gov.my/pdf/strategy-paper/Strategy%20Paper%2018.pdf

Table 6: Key Healthcare Reforms in Malaysia – Autonomous Liberalization and Privatization (2011-2015)

	Before 2012	Reform in 2012	Remarks
Hospital Services (Mode 3)	1. Foreign equity restrictions (70% under AFAS and 30% under GATS)* 2. Minimum of 100 beds 3. Only 2 foreign specialists per organization	1. No restrictions on foreign equity ownership 2. Removal of minimum number of beds 3. Removal of foreign specialist restrictions	*Only through a locally incorporated joint venture with a Malaysian individual or corporation.
Healthcare Professionals (Mode 3)			
Specialized Medical Services	Foreigners are not allowed to set up 'stand-alone' specialized clinics	Foreigners are allowed to set up and take 100 percent ownership of the specialized clinics	Accredited by Malaysian Medical Council
Specialized Dental Services	Foreigners are not allowed to set up 'stand-alone' specialized clinics	Foreigners are allowed to set up and take 100 percent ownership of the specialized clinics	Accredited by Malaysian Dental Council
Movement of People (Mode 4)			
Specialized Medical Services	1. Restrictions of professionals to 14 specialized services* 2. Restrictions to private hospitals with at least 100 beds	1. Allow foreign medical professionals in all specialties with relevant medical qualification (verified by Malaysian Medical Council) 2. Removal of restrictions to hospitals with 100 beds	*Specialized services include forensic medicine, nuclear medicine, geriatrics, micro vascular surgery, neurosurgery, clinical immunology and oncology, traumatology, anesthesiology, intensive care specialist, child psychiatry, physical science
Specialized Dental Services	Foreign dental professionals are allowed to practice for teaching purpose at private and public universities	Allow foreign dental professionals to practice with relevant dental qualifications (verified by Malaysian Dental Council)	

Source: Ministry of Health (MOH), Healthcare and Medical Tourism 2015 (http://myservices.miti.gov.my/documents/10180/0/Healthcare%20and%20Medical%20Tourism%2C%20Sabah%20%2815062015%29?version=1.1&t=1434933603000)

6.3 SUPPORT FOR PRIVATE HEALTHCARE PROVIDERS TO BECOME GLOBAL: HEALTHCARE AND MEDICAL TOURISM AND MALAYSIA HEALTHCARE TRAVEL COUNCIL (MHTC)

The government recognized the importance of creating regional and global value chain in healthcare and medical services by promoting medical tourism that targets tourists seeking quality and cost-effective medical treatment overseas. In order to promote medical and health tourism, the government set up a small unit to promote the medical tourism industry in 2005 in the Ministry of Health. Formally, the Malaysia Healthcare Travel Council (MHTC) became an agency under the Ministry of Health in 2009. The key objective of MHTC is to raise and to develop the Malaysian healthcare travel industry by increasing the profile of Malaysia as the world's top destination for world class quality healthcare services. The MHTC will also coordinate and build industrial collaborations in terms of public-private partnerships for healthcare medical tourism. In addition to the promotion of healthcare medical tourism, the council will work with industrial providers and stakeholders in both the private and public sectors to create a holistic travel ecosystem.

The government also provided strong support and leadership in the expansion of private hospitals to attract more foreign tourists and provide medical services to international patients. For example, Subang Medical Centre that targets rich tourists was able to achieve a revenue of around RM2 billion in 2010 (Dahlui and Aziz, 2012). Several hospitals such as KPJ Medical Group, Mahkota Hospital and Subang Jaya Medical Centre also tied up with travel agencies and hotels to provide medical tourism packages in both healthcare and general tourism.

6.4 INCREASING HUMAN CAPITAL DEVELOPMENT AND MANAGING FOREIGN HEALTH PROFESSIONALS

The government adopted several policies to promote human capital development in the healthcare sector under the 9th and 10th Malaysian Plans. The key was to increase the supply of medical and health professionals in the economy by increasing the intake at the universities and the government provided more resources to the universities to expand their intakes. There were also support from the government to provide training and retraining of the staff in the healthcare industry. To address the issues related to skills mismatch at the healthcare sector, the government increased the training of healthcare professionals through the continuing

professional development (CPD) programs[4]. Under CPD for Nurses, the Nursing Board Malaysia requires a minimum CPD points to be accredited to maintain the nursing license for nurses to practice in the hospitals. There are clear guidelines in terms of accreditation and verifications by respective supervisors at the hospitals to maintain the professionalism of nurses in the healthcare sector.[5] The number of doctors increased from around 15,421 in 2005 to nearly 18,140 in 2007. The number of specialists also increased from 2014 in 2005 to nearly 2413 in 2007[6].

In addition, the government eased the restrictions and quotas on foreign workers in the healthcare sector to increase the flow of skilled workers into the sector. The easing of restrictions in terms of quotas (restrictions on the number of foreign employment to local employment) enabled the private sector to source for the best talent to work in the healthcare sector. The easing of the restrictions also allowed the spouses of the expatriates to obtain special employment passes to work in the domestic economy, which incentivized more foreign skilled workers to work in the Malaysian economy. There were no restrictions on foreign doctors to practice in Malaysia, however it must be based on their registration with the Malaysian Medical Council.

In 2011, the government set up the Talent Corporation to attract and retain skilled foreign labour in the domestic economy. The government introduced the Returning Expert Programme (REP) that encourages and facilitates the return of skilled and professional Malaysians back to the Malaysian economy to promote human capital development in the economy. The returning skilled Malaysians are given special incentives such as 15% flat income tax rate, tax exemptions for all personal items brought into Malaysia, tax exemptions for imported car and eligibility of foreign spouse and children for Permanent Resident status in Malaysia after six months. The other key program is the Residence Pass-Talent (RP-T) which is a 10-year renewable pass for highly qualified expatriates to work and reside in Malaysia. The key benefits include flexibility to change employers; eligibility of spouse and dependents under 18 years for the RP-T dependent pass; and eligibility of spouses for the RP-T and employment without

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[4] The CPD allows for individual-driven development of professional staff to increase their training.
[5] Ministry of Health, Guidelines for Continuous Professional Development (CPD) Programme for Nurses/Midwives, January 2008, http://www.moh.gov.my/images/gallery/Garispanduan/CPD/CPD_For_Nurses_UDP081010.pdf
[6] Economic Planning Unit (EPU), Prime Minister's Office, Tenth Malaysian Plan, http://www.epu.gov.my/en/rmk/tenth-malaysia-plan-10th-mp

an employment visa. Since 2011, the Talent Corporation has approved 3,210 foreign employment passes under the RP-T program[7].

The government through the Talent Corporation provided several incentives to encourage the return of overseas Malaysian doctors. The government offered approval permits to import cars, exemption from "housemanship" if they have been working as medical officers at overseas hospitals, and those with experiences were exempted from working three years at public hospitals on their return (Dahlui and Aziz, 2012).

To improve the labour market activities and efficiency, the National Institute of Human Resources was upgraded to the Institute of Labour Market Information and Analysis (ILMIA) under the Ministry of Human Resources (MoHR) in 2012 to improve the labour market information dissemination and labour analysis. These government initiatives to increase the supply of healthcare professionals are reflected by a decline in doctors to population ratio from 1:1380 in 2005 to 1:597 in 2015. Similarly, we also observe a decline in the nurses to population ratio from 1:592 in 2005 to 1:200 in 2015[8].

6.5 INCREASING INNOVATION AND RESEARCH & DEVELOPMENT IN HEALTHCARE SECTOR

To increase innovation and research and development in clinical research, the government set up Clinical Research Malaysia (CRM) at the Ministry of Health to spearhead clinical research at the hospitals and universities. CRM is expected to function as a focal point to manage the funds related to clinical trials to meet the high international standards of transparency in research. It will also support local clinical research organizations to develop local capabilities and expertise in clinical research. To support CRM, the government will be providing RM38 million to fund the initial capital expenditure and the operating cost of the network of individual research hubs at each of the 13 states.

Besides increasing the funding for clinical laboratories at the universities, the government also provided more infrastructure support to the hospitals and universities to undertake clinical trials

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[7] TalentCorp Malaysia, http://www.talentcorp.com.my
[8] Economic Planning Unit (EPU), Prime Minister's Office, Tenth Malaysian Plan, http://www.epu.gov.my/en/rmk/tenth-malaysia-plan-10th-mp

and laboratory diagnostics tests that could support the growth of the healthcare industry. The government improved the telecommunication and internet connectivity to increase the flow of services in "telemedicine" and connectivity of the healthcare industry[9].

6.6 IMPROVING THE QUALITY OF MANUFACTURED AND IMPORTS OF MEDICAL DEVICES

The government introduced the Medical Device Act (Act 737) and Medical Device Authority Act 2012 (Act 738) to ensure the safety and quality of the medical devices manufactured and imported into the economy. The Medical Device Authority was set up under the Ministry of Health to ensure the safety and quality of the medical devices manufactured and imported into the Malaysian economy. The regulation specifies the requirements and procedures with regard to medical device registration, conformity assessment body registration, establishing licensing, export permit and appeal. The key objective of the Medical Device Act is to ensure safety, high quality and conformity to the international practice and technical standards of medical devices in the healthcare sector[10].

6.7 INCREASING THE INTEGRATION OF PRIVATE AND PUBLIC PRACTICE

The government created flexibility in the working conditions by allowing doctors to practice at both private and public hospitals. The flexibility in the working conditions allowed public hospitals to invite specialists from private hospitals to team up or practice at outpatient clinics at public hospitals. The integration of public and private healthcare practices increased the quality of healthcare and also eased the manpower and skills shortages in the labour market.

6.8 INTEGRATION OF MODERN MEDICINE WITH TRADITIONAL MEDICINE

The government encouraged the integration of modern medicine and traditional medicine as complementary form of healthcare that will improve the quality of life. To promote the integration of modern and traditional medicine, the National Health Policy on traditional and complementary medicine was initiated under the 9th Malaysia Plan. The objective of the policy was to ensure the safety and quality of traditional medicine. The Traditional and

[9] Economic Transformation Programme, A Roadmap for Malaysia, Chapter 16 – Creating Wealth Through Excellence in Healthcare, http://www.moh.gov.my/images/gallery/ETP/NKEA%20Penjagaan%20Kesihatan.pdf
[10] Ministry of Health, Medical Device Authority, http://www.mdb.gov.my/mdb/index.php

Complementary Medicine Council was set up in 2009 to maintain the standards and quality of traditional medicine and also to integrate traditional medicine into mainstream medical practices. In 2007, the first traditional and complementary medicine unit was set up at Kepala Batas Hospital, Pulau Pinang (Dahlui and Aziz, 2012). In 2009, there were nine hospitals with traditional and complementary medicine units.

6.9 PROMOTING MALAYSIA AS "MY SECOND HOME INITIATIVE"

The government introduced the "My Second Home" initiative to attract retirees to locate in Malaysia as potential retirement home. The government provided tax incentives for retirees to buy land and lowered the tax on their investment and pension income during their retirement in Malaysia. In addition, the government provided tax incentives to healthcare service providers for providing services to foreign health tourists and increased their tax exemption from 50% to 100% on the value of their healthcare exports (Dahlui and Aziz, 2012).

6.10 DEVELOPMENT OF PUBLIC AND PRIVATE PARTNERSHIP IN HEALTHCARE SERVICES SECTOR: QUALITY ASSURANCE BY THE PRIVATE SECTOR

One of the most interesting initiatives of the government was to create a public-private partnership framework for quality assurance by the private sector and link up with international organizations that promote standards and quality assurance in healthcare services. The setting up of associations related to healthcare and committees that include government officials, private sector, and workers were very useful to create ownership and commitment to quality healthcare services in the economy. The Malaysian Society for Quality in Health (MSQH), formed with the initiative of the government in 1997, is a non-profit organization consisting of the private and public sectors that work actively to promote the quality of healthcare professionals. The objective of MSQH is to promote safety and quality of the services of healthcare professionals and to conduct voluntary quality accreditation programs for the Malaysian healthcare organizations. In 2009, it was recognized by Standard Malaysia as the key agency for accreditation body for standards in healthcare facilities and services in Malaysia.

MSQH works very closely with the industry and professional bodies to review and develop healthcare standards, conduct educational services, and provide information for accreditation.

The government also actively promotes other non-profit organizations such as the International Hospital Federation, the ASEAN Society for Quality in Healthcare, and the Asian Hospital Federation.

6.11 GOVERNMENT TAX INCENTIVES FOR HEALTHCARE SECTOR

The government promotes the development of the healthcare sector by incentivising investments in new technologies and expansions in healthcare facilities. In order to boost healthcare services, the government provides tax exemptions and incentives for the expansion and investment in healthcare sector. The following are the key government incentives given to develop the exports of healthcare services and the healthcare sector[11]:

a. Healthcare services offered to foreign clients are qualified for tax exemption of 50% on the value of increased exports income subject to 70% of the statutory income for each year of assessment.
b. Double tax deduction for certain expenses incurred by resident companies in seeking opportunities to export Malaysian services.
c. Investment in new private healthcare facilities or existing private healthcare facilities undertaking expansion and modernization for the purpose of promoting healthcare travel are eligible for income tax exemption equivalent to Investment Tax Allowance (ITA) of 100% on qualifying capital expenditure incurred within a five-year period. The allowance could be used to offset against 100% of the statutory income for each year of assessment.
d. Expenses incurred by private hospitals in obtaining domestic or international recognized accreditation such as from MSQH or Joint Commission International (JCI) qualify for double deduction for the purpose of income tax computation.
e. Special permits and tax incentives for hospital vehicles that ferry patients and relatives.
f. Import tax subsidies and incentives for imports of medical equipment and machines for the hospitals and healthcare centers.

The government also offers tax deductions for expenditures to offset out-of-pocket medical expenses and insurance costs. Under the 9th Malaysian Plan, tax deductions are allowed up to RM500 for a complete examination, RM3,000 for personal medical insurance premiums, and RM5,000 for medical expenses for parents (Alejandra et.al, 2010).

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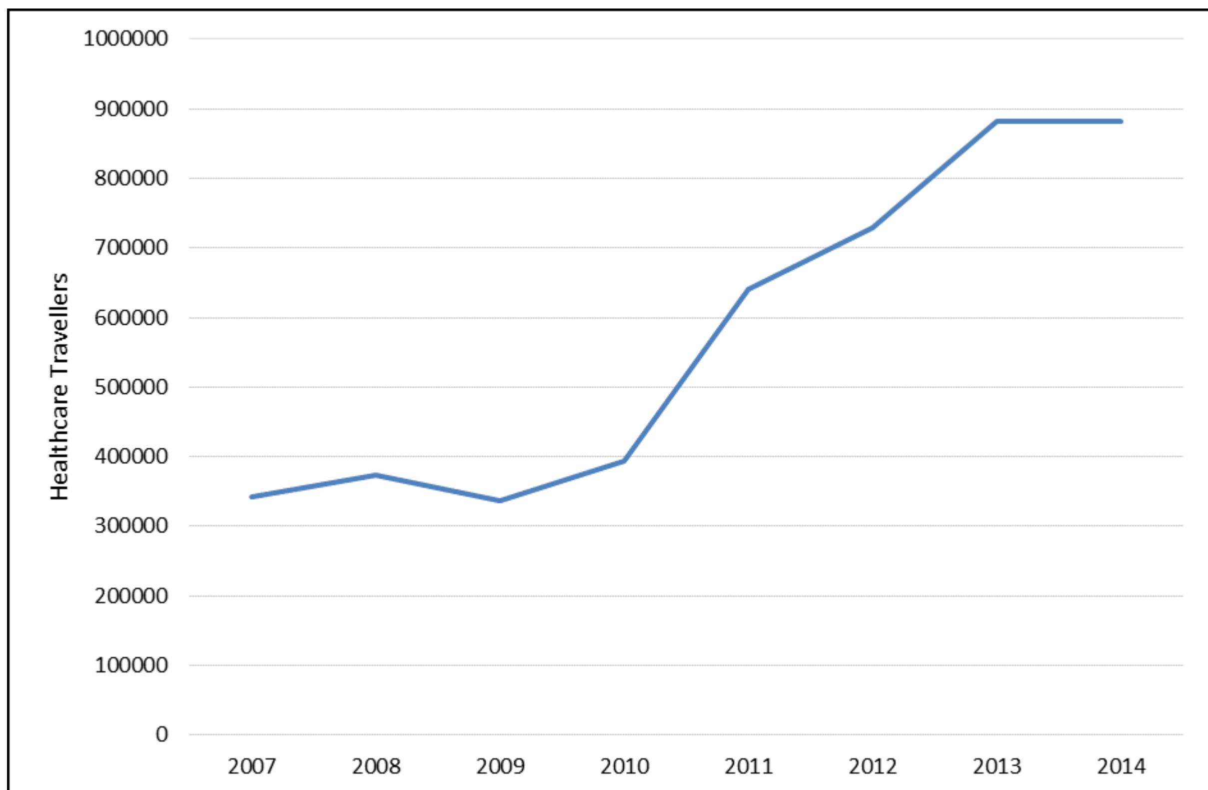
[11] Malaysian Investment Development Authority, Booklet 16 - Medical and Healthcare Services, October 2012, http://www.mida.gov.my/env3/uploads/Publications_pdf/Malaysia_InvestmentinTheServicesSector/2012/16%20MedicalHealthCareServices.pdf

7. EXPORT OF HEALTH AND MEDICAL SERVICES: MEDICAL TOURISM IN MALAYSIA

Medical tourism is an important component of global healthcare value-chain, where the interface between tourism and healthcare services are linked to create synergy and externalities between two services based industry. From 2007 to 2014, the health tourism grew at an average rate of 16.5% and we observe a stronger growth in recent years as it registered a growth rate of close to 22.3% from 2010-2014 (see Figure 15).

Figure 15: Medical Tourists to Malaysia: 2007-2014



Source: Malaysia Healthcare Travel Council (MHTC) (www.mhtc.org.my)

The recent growth in health tourism clearly reflects both the competitiveness of the Malaysian healthcare sector and also the effectiveness of policy reforms in the healthcare sector. Since the Malaysian government set up the health tourism promotion unit in 2005 and expanded the unit to become the Malaysia Healthcare Travel Council (MHTC) in 2009, we observe an increase of health tourism activities in Malaysia (see Figure 15). The objective of MHTC is to streamline healthcare services and industry players in both the travel and healthcare sectors to create economies of scale and scope, thereby creating positive externalities between the two services

sectors. The government's plans to liberalize the aviation sector to create an aviation hub in the 9th Malaysian Plan and to support the development of low cost carrier terminal (LCCT) and budget airlines (see Table 5 above) also has a strong impact on tourism, and consequently on the development of medical tourism.

It is interesting to observe that medical tourism is closely linked to low cost of transportation and also cultural similarities between economies. Most of the health tourists to Malaysia are from Indonesia, Middle-East, India and Japan. In fact, the Indonesian tourists accounted for nearly 76% share of medical tourism in Malaysia in 2011. About 335,150 medical tourists from Indonesia came to Malaysia in 2011. We also observe strong growth in medical travelers from Middle-East, U.K., China, and Hong Kong, China (see Table 7).

Table 7: Source Destinations of Medical Tourism from Selected Economies (top 10) in Malaysia: 2010-2011

Source Economy	2010	2011	% change
Indonesia	261,177	335,150	28.3
India	16,940	18,640	10.0
Japan	14,930	16,111	7.9
U.K.	8,254	12,704	53.9
China, and Hong Kong, China	7,941	11,886	49.7
United States	7,557	10,584	40.1
Australia	7,157	9,678	35.2
Middle-East	14,448	22,628	56.6
Singapore	4,307	5,879	36.5

Source: Malaysia Healthcare Travel Council (MHTC), Overview of the Development of Malaysia Healthcare towards Medical Tourism, 2012 (www.mhtc.org.my)

Table 8: Revenue (receipts) from Medical Tourism in Malaysia: 2000-2011

	Value (RM millions)	Annual Growth (%)
2000	33	48.4
2006	204	35.0
2011	511	34.9

Source: Malaysia Healthcare Travel Council (MHTC) (www.mhtc.org.my)

Medical tourism is expected to generate strong revenue growth for the Malaysian economy where the revenue from health tourism exceeded nearly RM600 million in 2012[12]. The medical tourism is also expected to generate significant revenue for both the tourism and medical services sectors. The medical tourism sector generated around RM33 million revenue in 2000 and it increased to nearly RM511 million in 2011, which is a significant growth of the revenue in this sector (see Table 8). The annual revenue growth in the sector averaged around 39% from 2000 to 2011.

Several factors contribute towards Malaysia being an important destination for healthcare and medical tourism in the region. It has strong tourism infrastructure and good and low cost connectivity in terms of travel and accommodation. In addition, Malaysia is competitive in its healthcare and cost. The quality of the healthcare is maintained at high standards and well regulated. The key information on the cost of healthcare in Malaysia is provided in a transparent manner for potential clients in the region so as to protect the interest of the clients. In fact, most of the private hospitals are accredited by the Malaysian Society for Quality in Health (MSQH) and the Association of Private Hospitals Malaysia (APHM). The accreditation is also endorsed by the government through MHTC. These accreditations are clearly stated in important government portals such as MHTC that could be easily accessed by potential clients for health tourism (see MHTC website: www.mhtc.org.my). Malaysia is also very cost competitive in terms of provision of quality healthcare services as indicated at Table 9. Furthermore, tourists from neighboring economies such as Indonesia and as far as the Middle-East feel comfortable in Malaysia due to the language, food, and religious affinity.

Table 9: Cost of Medical Tourism at Selected Economies (US$)

	Malaysia	Thailand	Singapore	Korea	United States
Heart Bypass	9000	11000	18000	34150	130000
Heart Value Replacement	9000	10000	12500	29500	160000
Angioplasty	11000	13000	13000	19600	57000
Hip Replacement	10000	12000	12000	11400	43000
Hysterectomy	3000	4500	6000	12700	20000
Knee Replacement	6000	10000	13000	24100	40000

Source: Global Health and Travel, July-August 2013 (http://www.wellnessvisit.com/about-wellness-visit-malaysia.php), Malaysia Healthcare Travel Council (MHTC) (https://www.mhtc.org.my/)

[12] Penang Monthly, www.penangmonthly.com

8. POLICY DISCUSSIONS

Malaysia maintains a strong and competitive position in healthcare services in the region. The healthcare sector in Malaysia shows great potential for growth in the region and also globally. Due to its cultural proximity to the region and the Middle-East, growth potential for this sector is very strong. Furthermore, the study has highlighted strong support from the government to promote healthcare services in the private sector to become more globally competitive. The integration of healthcare and tourism into medical-tourism and healthcare-tourism also creates strong externalities between the healthcare and tourism sectors.

The Malaysia government has been able to create a positive impact through these policies in the healthcare sector:

1. Taking an active role in planning and managing the development gap and bottlenecks in the healthcare sector. This active role by the government is reflected in the more forward-looking strategies and plans for the healthcare sector in terms of the various five-year plans. Furthermore, the role of the government in liberalizing and identifying the role of private sector in key healthcare sectors, and coordinating the sectors to manage and reduce bottlenecks has increased the activities of private sector in healthcare services. In particular, the development of healthcare-tourism and medical-tourism in Malaysia is a good case study in terms of liberalization of the healthcare services and also developing the key exportable services.
2. Creating synergy between public and private healthcare service providers to create positive externalities for quality and safety of healthcare services. In particular, there are policies to encourage and complement modern medicine with traditional medicine such as traditional Chinese medicine (TCM) that encourage the holistic development of the healthcare sector. Furthermore, the professionalism of TCM is promoted and built into the medical centers and into the private and public hospitals.
3. Identifying key skills gaps in the healthcare sector, thereby increasing the flow of semi-skilled and skilled foreign workers to enable them to effectively participate in the public and private healthcare sectors (mode 4). The mutual recognition of skills and allowing the greater flow of foreign skilled and semi-skilled workers is important for the development of the private medical and healthcare services in the Malaysian economy.

4. Encouraging and incentivizing investments by foreign hospitals in terms of joint ventures and mergers to internationalize domestic hospitals (mode 3) by removing the foreign ownership in the Malaysian healthcare sector.
5. Strong policies to encourage international accreditation of healthcare services and incentivizing local hospitals to be accredited by international healthcare agencies. In addition, there is greater involvement of the private sector in quality assurance and quality control of healthcare services. These initiatives promote and develop the quality and international recognition of private healthcare services in Malaysia.
6. Incentivizing and increasing private sector investment in infrastructure, connectivity and technologies in healthcare services by tax exemptions and tax holidays.
7. Deliberate policies allowing the integration of medical practices in private and public hospitals to create economies of scale and scope in the provision of healthcare services in Malaysia.
8. Government ministries and agencies becoming facilitators and enablers for quality healthcare services in the economy and region.

However, there are still several key challenges facing the private healthcare sector.

1. The major challenge facing the healthcare sector is the retention and quality of professionals in the economy for the private healthcare services to be competitive. There is still an issue of labour quality and sufficient supply of skilled healthcare professionals and workers in the economy due to large brain drain in the Malaysian economy. The government has to create a more conducive environment for developing local human capital in the healthcare sector. This could be achieved by providing more scholarships and internships based on academic merit and qualifications. In addition to maintaining the quality of healthcare professionals and workers, the government has to provide more training and accreditation of skills in the healthcare sector. The training could be supported by private healthcare professional associations and as well as in-house training at both the private and public hospitals. Furthermore, foreign hospitals should be encouraged to train local medical staff and this could be an important conduit for transferring key professional skills and globally competitive skills to the local hospitals and the domestic economy. Also, the government should monitor and improve the wages and salaries of local skilled workers as compared to the neighboring economies as a

greater number of skilled medical professionals tend to move to the neighboring economies due to higher wages.

2. There should be greater mutual recognition of medical and healthcare diplomas and degrees. The government could encourage more professional movement of skills and professional healthcare workers to the Malaysian economy by greater mutual recognition of medical and healthcare diplomas and degrees in the region. The government can have more mutual recognition agreements (MRAs) between Asian economies to recognize more professional degrees. The accreditation of these degrees and professional skills could be determined by the domestic medical and healthcare professional associations.
3. Although the government has reduced the limits on foreign ownership of private hospitals, there could be more encouragement to link up domestic and foreign hospitals. In particular, the government could encourage more joint ventures between local and foreign investors in the healthcare sector to allow more linkages for knowledge and technology transfers.
4. The government could also create value-chain activities in services such as promoting healthcare travel services in terms of insurance brokers and agents and international travel intermediaries to be located in Malaysia. Although the issue of medical insurance portability is the key challenge for the government, more international insurance companies could be encouraged to set up their offices in the domestic economy to cover the medical and travel insurance of foreign tourists and workers. A more liberal approach by the insurers and third-party administrators will pave the way to wider usage of private healthcare funds.
5. The value-chain activities in the healthcare sector could be improved by establishing foreign medical and healthcare educational institutes. For example, there is a greater need for the government to improve the quality of teaching and training of medical and healthcare professionals. The setting up of medical and healthcare educational institutions will create both economies of scope and scale for the healthcare professionals. The medical and healthcare educational institutes could include diplomas at polytechnics to professional medical degrees at the universities. The issue of the quality of healthcare professionals is reflected by the regulatory reform of the sector by the Malaysian Productivity Corporation (MPC, 2014). The government can provide incentives and subsidies for healthcare workers to enrol in courses and training that will improve their skills in both local and foreign educational institutions. In addition, the government could give tax incentives to hospitals and healthcare firms that encourage workers to go for

training and upgrading of their skills. The government could provide support for public hospital staff to be trained at private hospitals, where the level of technologies and standards of services are expected to be much higher.

6. International experiences show that the scale of tourism activities is important to promote health services exports. Tourist facilities that attract foreigners automatically generate flows of patients towards clinics. Accumulating a good number of (well) treated foreign patients would build trust in a health system and improve international reputation, which in turn would help to reduce the psychological distance between patients and the healthcare supply. Conversely, health sector competitiveness opens up the potential for diversification and improvement of the quality of tourism services in segments that attract a growing share of demand. Therefore, improving competitiveness in any of the two sectors will automatically help to enhance competitiveness in the other (AfDB, 2013). This will be an important challenge for Malaysia to keep both tourism and healthcare cost competitive and also affordable for the Malaysians as other emerging Asian economies compete for the same pool of foreign tourists in the regional markets.
7. There is a need to develop stronger domestic capacity and linkages to support foreign investments in the healthcare sector. In addition, foreign investments in the healthcare sector should be aligned to the domestic SME strategies to increase the spillovers and in creating externalities to the domestic economy. Thus, there is a need to develop strong SME strategies in the healthcare sector to provide quality backward linkages to the growing investments in healthcare. The development of SMEs is not only to support the domestic healthcare activities but also to participate in the regional and global production value-chain. This is an important strategy to create sustainable and inclusive growth of the healthcare industry in the long-run.
8. Malaysia is known to have developed strong international recognition for its Halal Hub in terms of food and cultural standings. The SMEs could participate in this Halal Hub. The Halal Hub could be an important part of the regional and global value-chain in the healthcare services in terms of attracting tourists from the Middle-East and other Muslim economies. The government could encourage the promotion of Halal Hub in online portals and at healthcare exhibitions in other economies to promote healthcare services in Malaysia.
9. Rising prices in private clinics coupled with lower spending on public healthcare have prompted doctors to move away from the public sector into higher-paying private practices leading to declining standards in the public hospitals and clinics. The movement

of doctors to the private sector also pushes up the average salaries of doctors and healthcare providers, thereby increasing the cost of public healthcare. Thus, it is important to maintain the quality of public healthcare in terms of affordability and cost effectiveness. This could be achieved through investment in new technologies that improve the productivity of public hospitals and clinics and also through training and retraining of healthcare professionals.

Finally, one of the most difficult tasks is to ensure first-class health outcomes at reasonably low cost. Demographics and lifestyle shifts have steadily made Malaysia's population older and less healthy, contributing to an increase in non-communicable diseases (Ministry of Health, 2012). Such changing health patterns require expensive, long-term treatment that requires higher public spending. This is not reflected in the trend of current public health expenditure in Malaysia. Thus, the government has to increase its expenditure on healthcare, closer to the average of 5% or more of GDP in the East Asian economies.

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10. ANNEX

Annex Table 1A: Facilities and Services Regulations for Private Hospitals

Business Life Cycle	Acts and Regulations	Regulatory Bodies
a) Start up Starting a business	Companies Act 1965 Registration of Business Act 1956	Companies Commission Malaysia (SSM) Ministry of Domestic Trade, Co-operatives, and Consumerism
b) Operation/Expansion Dealing with construction permits	Town and Country Planning Act 1976 Uniform Building By-Laws 1984	Local and municipal councils, Ministry of Housing and Local Government *Note: Kuala Lumpur, Putrajaya and Labuan come under a different Act and Ministry*
Fair trade	Competition Act 2010 Price Control and Anti Profiteering Act 2011	Malaysia Competition Commission (MyCC) Ministry of Domestic Trade, Co-operatives, and Consumerism
Utilities	Fire Services Act 1988 Water Services Industry Act 2006 Electricity Supply Act 1990	Fire and Rescue Department (BOMBA), Ministry of Housing and Local Government National Water Services Commission (SPAN), Ministry of Energy, Green Technology and Water Energy Commission (Suruhanjaya Tenaga – ST & Tenaga Nasional Bhd. – TNB)
Paying taxes	Income Tax Act 1967 Service Tax Act 1975, Sales Tax Act 1972 Assessment Tax (Local councils)	Inland Revenue Board (LHDN), Ministry of Finance Royal Malaysian Customs Department, Ministry of Finance Local and municipal councils, Ministry of Housing and Local Government
Trading across borders	Customs Act 1967, Excise Act 1976, Customs Duties order 1996 Exchange Control Act 1953	Royal Malaysian Customs Department, Ministry of Finance Central Bank Malaysia (BNM)
Employing workers	Employment (Amendment) Act 2011 Industrial Relation Act 1967 Minimum Wages Order 2012 Minimum Retirement Age Bill 2012 Employees Provident Fund Act 1991 Employees' Social Security Act 1969 Pembangunan Sumber Manusia Berhad Act 2001 Occupational Safety and Health Act 1994	Ministry of Human Resource Employees Provident Fund (EPF) Social Security Organisation (SOCSO), Ministry of Human Resource Human Resource Development Fund (HRDF) Ministry of Human Resource National Institute of Occupational Safety & Health (NIOSH), Ministry of Human Resource
Ownership of property	National Land Code 1965 Strata Titles Act 1985 EPU Guideline on the Acquisition of Properties (foreign investment)	Ministry of Housing and Local Government Department of Director General of Lands and Mines (JKPTG), Ministry of Natural Resource & Environment Economic Planning Unit (EPU), Prime Minister's Department

Business Life Cycle	Acts and Regulations	Regulatory Bodies
Getting credit/raising fund	Anti-Money Laundering Act 2001 Capital Market & Services Act SC Guidelines on Private Debt Securities SC Guidelines on Sales Practice of Unlisted Capital Market Products	Bank Negara Malaysia Securities Commission (SC)
Protecting investors	Malaysian Code on Corporate Governance 2012 Bursa Malaysia Listing & Trading Requirements	Bursa Malaysia (Bursa)
Enforcing contracts	Contracts Act 1950 Stamp Act 1949 Specific Relief Act 1963	Attorney General's Chambers (AGC)
Winding-up/Receivership	Bankruptcy Act 1967	Malaysia Department of Insolvency (MDI)

Source: Malaysian Productivity Corporation (MPC), 2014

Annex Table 1B: Regulations to Manage Healthcare Professionals

Primary Activity	Acts and Regulations	Regulatory Body
Establishment • Healthcare professionals • Specialists • Medical supplies • Facilities • Medical tourists	Private Healthcare Facilities and Services Act 1998 (Private Hospitals and Other Private Healthcare Facilities) Regulations 138/2006 Medical Act 1971 Dental Act 1971 Nurses Act 1950 & Nurses Registration Regulations 1985 Midwifery Act 1966 (Act 436) Medical Assistants (Registration) Act 1977 (Act 180) Registration of Pharmacists Act 1951 & Registration of Pharmacists Regulation 2004	Ministry of Health (various departments) Malaysian Medical Council (MMC) National Specialists Registration (NSR) Malaysian Dental Council (MDC) Malaysia Nursing Board (MNB) Malaysia Midwives Board (MMB) Malaysia Medical Assistants (Registration) Board (MMAB) Malaysian Pharmacy Board (MPB)
Operations • Services • Healthcare professionals • Specialists • Diagnostics • Treatment • Rehabilitation • Reporting (statistics & incident reporting)	Private Healthcare Facilities and Services Act 1998 Private Healthcare Facilities and Services (Medical Clinics or Dental Clinics) Regulations 2006 Medical Act 1971 Medical Regulations 1974 Dental Act 1971 Nurses Act 1950 Registration of Pharmacists Act 1951 & Registration of Pharmacists Regulation 2004 Optical Act 1991 (Act 469) & Optical Regulations 1994 Medical Device Act 2012 Medical Device Regulations 2012 Atomic Energy Licensing Act 1984 (Act 304) Environmental Quality Act 1974 (Act 1270) Factory and Machinery Act 1967 Fire Services Act 1988 Control of Drugs and Cosmetics Regulations 1984 (for manufacturing license) Statistics Act 1965 (Act 415)	Ministry of Health Malaysian Medical Council (MMC) Malaysian Dental Council (MDC) Malaysia Nursing Board (MNB) Malaysian Pharmacy Board (MPB) Malaysian Optical Council (MOC) Medical Device Board (MDB) Engineering Department of MOH Department of Environment (DOE) Department of Occupational Health and Safety (DOSH) BOMBA Malaysian Pharmacy Board Department of Statistics (DOS)
Sales & Marketing • Promotion • Brand development • Market development	Medicines (Advertisement and Sale) Act 1956 Medicines Advertisements Board Regulations 1976 Malaysia Health Tourism Council Requirements	Medicine Advertisements Board (MAB) Malaysia Health Tourism Council (MHTC)
Services • Immigration • Transportation • Accommodation • Financial	Immigration Act 1959/63 Insurance Act 1996 Exchange Control Act 1953 Tourism Industry Act 1992 Land Public Transportation Act 2010	Immigration Department Malaysia Bank Negara Malaysia (BNM) Ministry of Tourism (MOT) Land Public Transportation Commission & Road Transport Department (JPJ)

Source: Malaysian Productivity Corporation (MPC), 2014

Annex Table 1C: Agencies of Ministry of Health

Agencies	Legislative Provisions
Medical Practice Division – Private Medical Practice Control Section (CKAPS)	Private Healthcare Facilities and Services Act 1998 (Act 586) • Section 3: Approval and Licensing of facilities other than clinics; • Section 4: Registration of clinics; • Part XIV: Managed Care Organisation; and • Part XVI: Enforcement (Section 87-100). Regulations under Act 586: 1. Private Healthcare Facilities and Services (Private Hospitals and Other Private Healthcare Facilities) Regulations 2006; 2. Private Healthcare Facilities and Services (Private Medical Clinics and Private Dental Clinics) Regulations 2006; 3. Private Healthcare Facilities and Services (Official Identification Card) Order 2006; and 4. Private Healthcare Facilities and Services (Compoundable Offences) Regulations 2011.
Malaysian Medical Council (MMC)	• Section 12-14 of the Medical Act 1971; • Section 20 of the Medical Act 1971; • Section 29 – 31A of the Medical Act 1971 and Regulation 26-33 of the Medical Regulation 1974; • Second Schedule Medical Act 1971; and • Malaysia Qualification Agency Act 2007 [Act 679].
Malaysia Dental Council	• Dental Act 1971 (Act 51)
Malaysia Nursing Board	• Nurses Act 1950 (Act 14) & • Nurses Registration Regulations 1985
Malaysia Midwife Board	Midwifery Act 1966 (Act 436)
Medical Assistant Board	Medical Assistant (Registration) 1977 Act [Act 180] • Section 3(1); • Section 6(1), 7(1); and • Section 9(1).
Malaysian Optical Council (MOC)	• Optical Act 1991 (Act 469) • Optical Regulations 1994
Pharmacy Enforcement Division (PED)	1. Poisons Act 1952 • Section 31: Power of investigation, examination and entry into premise. • Section 34: Sanction to prosecute and conduct prosecution. 2. Sale of Drugs Act 1952 • Section 4(1)(a): Power to enter and inspect any place where he has reason to believe that there is any drug intended for sale. • Section 4(1)(b): Power to mark, seal, otherwise secure, weigh, count or measure any drug, the sale, preparation or manufacture of which is or appears to be contrary to this Act. • Section 4(1)(c): Power to inspect any drug wherever found which is or appears to be unwholesome or deleterious to health. • Section 4(2)(a): Power to seize any drug wherever found which is or appears to be unwholesome or deleterious to health. • Section 4(2)(b): Power to destroy any drug wherever found which is decayed or putrefied. • Section 5: Power to demand, select and take samples. • Section 9: Power to call for information. • Power to prosecute and conduct prosecution given by DPP under Section 376 of Criminal Procedure Code 3. Registration of Pharmacists Act 1951 • Section 21(2): power to enter premises to inspect, remove and detain… 4. Medicines (Advertisement and Sale) Act 1956 Section 6B: Power of investigation.

Agencies	Legislative Provisions
	Section 6C: Power of Examination of witnesses. Section 6D: Power to enter premises. Section 6F: Sanction to prosecute and conduct prosecutions.
Pharmacy Board Malaysia	• Registration of Pharmacist Act 1951; and • Registration of Pharmacist Regulations 2004.
National Pharmaceutical Control Bureau	Control of Drugs and Cosmetics Regulations1984… Where the Authority (known as the Drug Control Authority, DCA) established under these Regulations, is tasked with ensuring the quality, safety and efficacy of medicinal products through the registration, including quality control, inspection and licensing and post-registration activities. The NPCB acts as a secretariat to the Authority.
Medicine Advertisement Board	• The Medicines (Advertisement and Sale) Act 1956 [Act 290]; and • Medicines Advertisements Board Regulations 1976
Food Safety and Quality Division	• Food Regulation 1985 • Food Hygiene Regulation 2009 • Food Analyst Act 2011
Disease Control Division	• Prevention and Control of Infectious Diseases Act 1988 (Act 342); • Prevention and Control of Infectious Diseases (Importation and Exportation of Human Remains, Human Tissues and Pathogenic Organisms and Substances) Regulations 2006; and • International Health Regulations 2005.

Source: Malaysian Productivity Corporation (MPC), 2014

Annex Table 1D: Non-Governmental Agencies in the Regulating Healthcare (Public Private Partnership)

Bodies	Purpose/Objective/Function
Malaysian Medical Association http://www.mma.org.my/ (A National Association for Medical Doctors)	Objectives: • To promote and maintain the honour and interest of the profession of medicine • To serve as a vehicle of the integrated voice of the whole profession • To participate in the conduct of medical education, as may be as appropriate
National Specialist Register https://www.nsr.org.my/	Purpose: To ensure that doctors designated as specialists are appropriately trained and fully competent to practise the expected higher level of care in the chosen specialty. With the National Specialist Register in place, doctors will be able to identify fellow specialists in the relevant specialties to whom they can refer either for a second opinion or for further management. Importantly, the National Specialist Register protects the public and will help them to identify the relevant specialist doctors to whom they may wish to be referred or may wish to consult.
Academy of Medicine of Malaysia http://www.acadmed.org.my/	AMM is a professional organization to assure the maintenance of a high standard of professional and ethical practice. AMM was formed in 1966 and was registered on 22nd December, 1966 under the Societies Act (1966). The Academy of Medicine of Malaysia embraces all specialties in medicine.
Association of Private Hospitals of Malaysia http://www.hospitals-malaysia.org/	The APHM plays an important role in its objective of helping to raise standards of medical care within the economy. Some of the activities geared towards this objective include :- • Ensuring patient safety and quality as a member of the National Patient Safety Council, the Malaysian Society for Quality in Health and the Malaysian Productivity Council. • Working dialogues with public sector agencies including Ministry of Health Malaysia • Participation in National working groups such as MPC, MITI and MATRADE. • Training programs for all Healthcare providers which include the yearly Conference and Exhibition and regular smaller group workshops on clinical and administrative / managerial topics. • Promotion of Health Tourism Activities regionally and internationally with the Malaysia Healthcare Travel Council (MHTC).
Malaysian Pharmaceutical Society http://www.mps.org.my/	Among the aims of the Society are: • To promote and maintain the honor and interest of the profession of pharmacy • To encourage and further the development of Pharmacy and Pharmaceutical Education and to foster intra-professional relationship among members. • To improve the Science of Pharmacy for the general welfare of the public by fostering the publication of scientific and professional information relating to the practice of pharmacy and aid in the development and stimulation of discovery, invention and research. • To uphold and enhance the standard and ethics of the profession. • To affiliate and co-operate with any organization as may be deemed desirable in furthering the aims of the Society.

Bodies	Purpose/Objective/Function
	• To represent the views of the members in matters affecting the common interest of the profession. • To assist in improving the health services in the economy. • To enhance the professionalism of pharmacists, the Society endorsed the Code of Conduct For Pharmacists And Bodies Corporate as established by the Pharmacy Board.
Malaysian Society of Anaesthesiologists http://www.msa.net.my/	The Malaysian Society of Anaesthesiologists was founded in 1964. It was initially registered as Malayan Anaesthetic Society but changed its name to Malaysian Society of Anaesthesiologists in the 1970s. Objectives: • To promote the art and science of Anaesthesiology. • To co-ordinate the activities of Anaesthesiologists. • To represent Anaesthesiologists and protect their interests. • To encourage and promote co-operation and friendship between Anaesthesiologists and to do such lawful things as may be indicated or conducive to the attainment of such objects. • To achieve liaison with similar bodies and other specialties in other regions.
Malaysian Nurses Association http://www.mna.org.my/	Objectives: To achieve our mission, the Association aims to:- • Develop and promote high standards of nursing practice and research. • Uphold the image of nursing. • Abide by the professional ethics. • Be the center of national and international nursing networking. • Implement and collaborate with other organizations for health promotion.
Malaysian Association of Medical Assistants http://www.pppmalaysia.com/	Objectives: • To cater for the professional interests of medical assistants and to all those having connection with and the practice of medical and health sciences towards helping to sustain standard and work ethics. • To facilitate the exchange of information and ideas by literary, technical and social activities on matters affecting the role of medical assistants in relation to primary health and medical care, emergency medicine, medical/ surgical specialisation and super specialisation and medical management, administration and supervision. • To foster and preserve the unity and aim or purpose of the profession. • To support a high standard of professional ethics and conduct. • To enlighten and direct public opinion on professional aspects in relation to medical and health problems. • To promote the advancement of medical assistants as a profession and to maintain the standard of training, service, education and interests of the profession at all levels. • To voice its opinion and to acquaint the government and other bodies with the policy and attitude of the medical assistants profession. • To promote and participate in social, medical and charitable activities in building an united Malaysian nation.
Malaysian Dental Association http://www.mda.org.my/ Affiliations: a) Malaysian Endodontic Society b) Malaysian Private Dental Practitioners' Association	Objectives: • To promote the art and science of dentistry. • To maintain the honour and interest of the dental profession. • To foster and preserve unity, aim and purpose of the dental profession as a whole.

Bodies	Purpose/Objective/Function
c) Malaysian Association of Aesthetic Dentistry d) Malaysian Oral Implant Association	• To hold periodical meetings of members of the association for the discussion of scientific subjects, professional matters and social purposes. • To encourage study and research in the field of dentistry. • To support and promote a high standard of ethics and professional conduct. • To enlighten and direct public opinion on dentistry and problems of dental health. • To publish papers, journals and other materials in furtherance of the above objects.
Malaysian Healthcare Travel Council https://www.mhtc.org.my/ [Note: MHTC was established under MOH with Cabinet approval in 2009]	Mission: • To promote global awareness of Malaysian healthcare facilities and services. • To promote and facilitate the development of the Malaysian healthcare industry so as to penetrate the global market. Objective: To facilitate public-private sector collaboration so that issues affecting this industry can be effectively addressed to ensure that health visitors have a seamless experience with Malaysian healthcare services.

Source: Malaysian Productivity Corporation (MPC), 2014