

Explore healthcare opportunities in Belt and Road countries – Thailand

November 2017



Agenda

Part 1

Overview of Thailand economics

Part 2

Thailand healthcare industry

Part 3

Recent investment or deal in Thailand healthcare industry

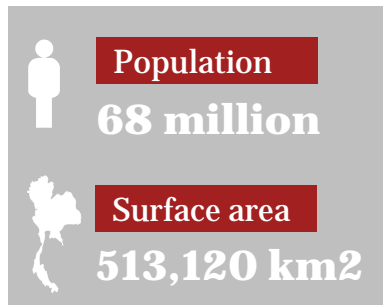
Part 4

Potential investment opportunities



Overview of Thailand economics

Thailand: At a glance



Source: CIA World factbook

Languages

Thai, English, ethnic and four regional dialects

English is widely used in Bangkok and vicinities

Government

Constitutional monarchy

Source: Thailand Board of Investment

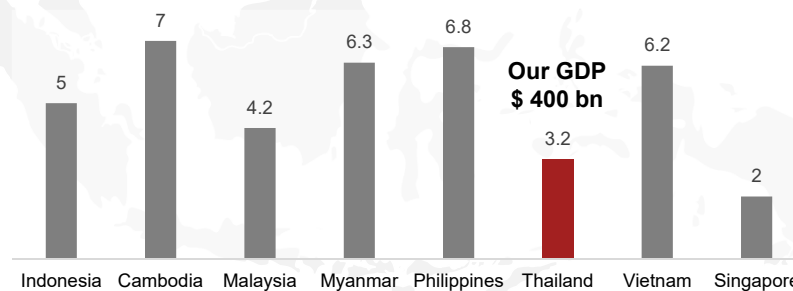
Ease of doing business in 2017

46th in the world
(moved up from 49th in 2016)

Source: World Bank — Doing Business

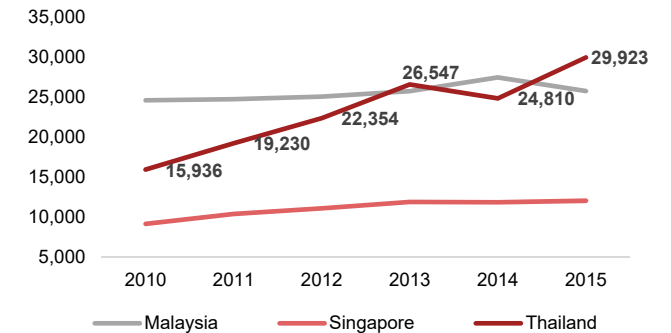


2016 ASEAN Annual GDP Growth (%)



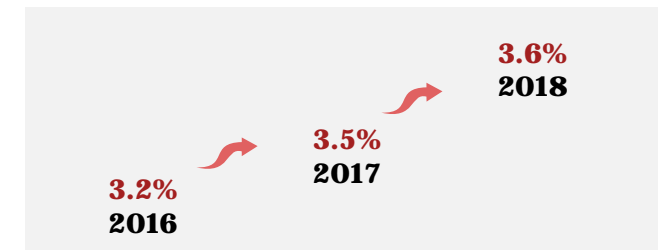
Source: IMF, World Economic Outlook database

International visitors '000 visitors



Source: World Bank

Thailand's GDP Projection



Source: World Travel & Tourism Council, Thailand's Automotive Institute (2016), BMI

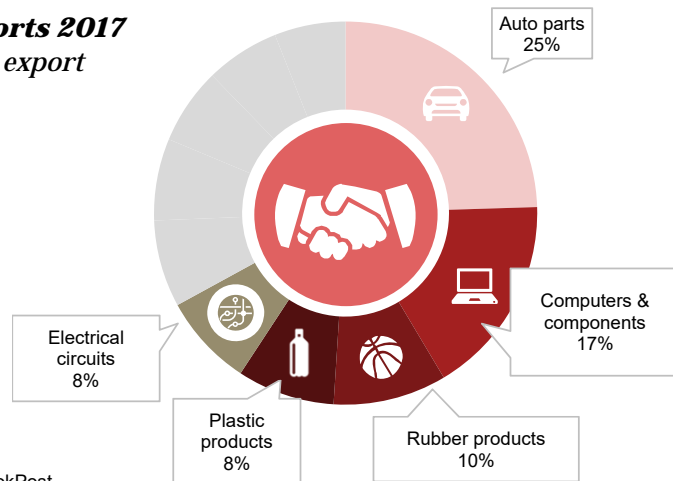
Thailand: At a glance

Thailand's Trade

- Export reaches a multi-year high, showing a strong international demand for Thai goods.
- Import is also experiencing growth, but may be affected strongly by the sluggish domestic consumption due to the high level of household debt and weak jobs growth.

Source: Thailand Board of Investment

Top exports 2017 % of total export



Source: BangkokPost

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Travel & Tourism

- Looking to slowly pick up growth after the 2016 zero-dollar tours' crackdown, Thailand's 2016 Travel & Tourism is valued at USD36.7bn (9.2% of the country GDP). It is expected to grow by approximately 9.3% by the end of 2017 and 6.7% pa toward 2027.



Automotive

- In 2016, Thailand automotive industry is the 6th largest commercial vehicle manufacturer in the world. It has a combine production of 1.94 million units and the sector itself makes up approximate 12% of the country's GDP.

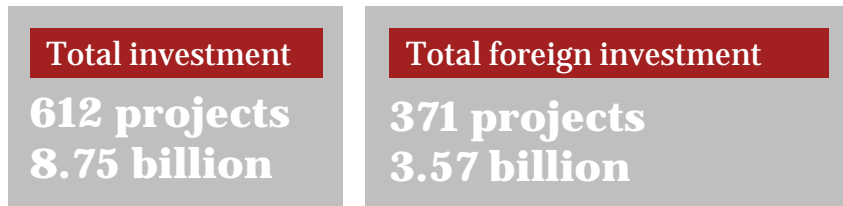


Healthcare

- Health expenditure is a promising industry that is constantly growing. The sector is value at 6.21% of Thailand's GDP and is expected to grow at approximately 6% in value y-0-y toward 2021. It is anticipated that the growth will be driven by the private sector.

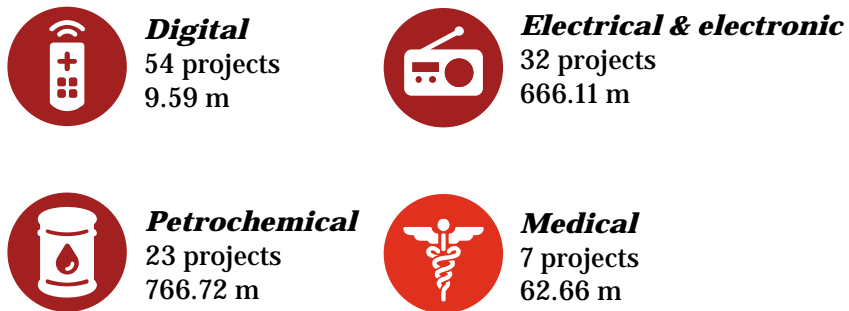
Foreign investment in Thailand

Thailand: Top 20 ranking for FDI attractiveness



Foreign investment by target sector

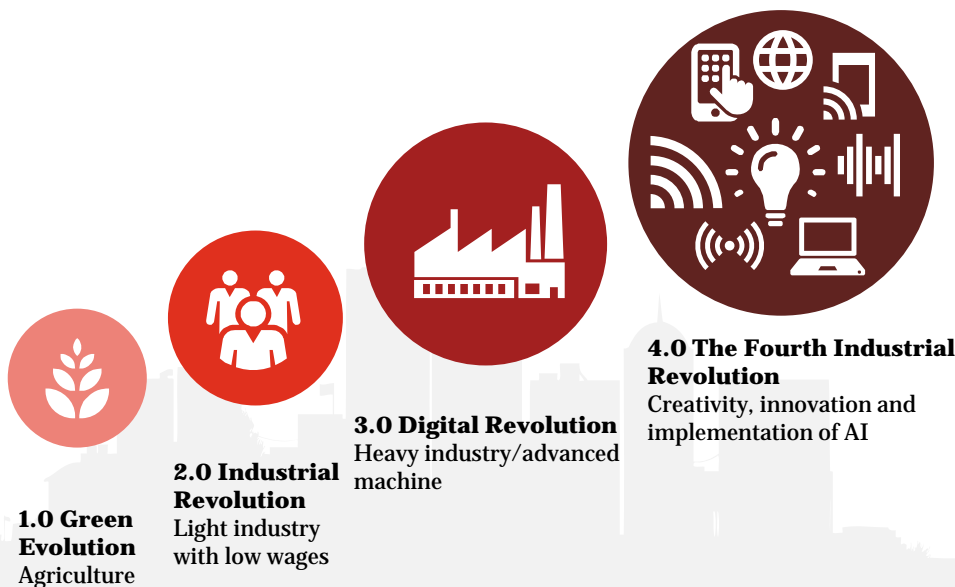
Jan – June 2017, in USD



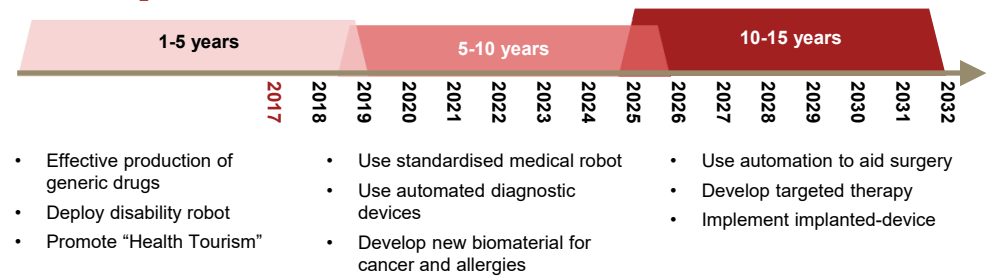
Source: Board Of Investment Thailand as of September 2017, Bangkok Post

Thailand 4.0 and the healthcare industry

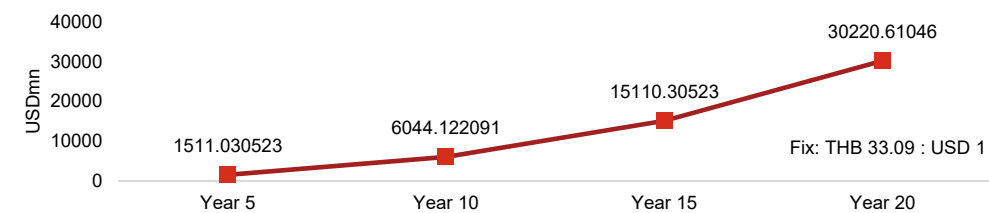
Thailand 4.0 encourages the development of technology in several industries. One of the industry is healthcare. The Ministry of Public Health have create a roadmap as guideline toward making Thailand the medical Hub of ASEAN within 2025.



Roadmap



Thailand's Healthcare Industry Size Target



Source: Ministry of Public Health

Overview: Demographic

Thailand's Demographic in 2010 & 2016



Source: The World Bank, World Development Indicators






Ageing Population

Thailand's demographics in 2010 and 2016 show that ageing has resulted a larger proportion of older people between the age of 45 and above in comparison to the other age. This results from:

- New generation of Thai-Chinese decent having less children
- Marriage at later age
- More divorces before having children
- Women become more independent

Source: PSC, Research Reports

Why does ageing matter?

- Expected economic growth 
- Demand for healthcare 
- Dependency ratio 
- Productivity growth 
- Social security tax 

A photograph of a hospital hallway. A person wearing a purple short-sleeved uniform and dark pants is walking away from the camera down the center of the hallway. They are carrying a black bag. The hallway has white walls, a polished floor, and a drop ceiling with recessed lights. There are doors on both sides of the hallway. A large red arrow-shaped graphic is overlaid on the bottom half of the image, pointing to the right.

Thailand healthcare industry

Key industry indicators

Overview: Healthcare Expenditure

Current Situation

 **2016 Spending as % of GDP**
6.2%

 **2016 Increase in Spending**
6.08% y-o-y

 **2016 Government Spending**
86.78%

Key drivers

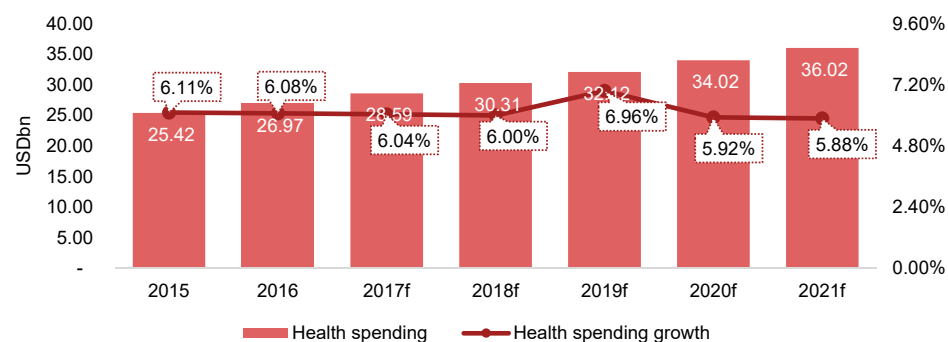
Encourage healthcare expenditure:

1. Higher proportion of old people in need of healthcare.
2. Increase in nation average disposal income.
3. Government initiative on promoting healthcare.
4. New diseases/viruses.

Discourage healthcare expenditure:

1. Government restriction on healthcare budget.
2. Competitions within the region.

Healthcare Expenditure Trends, Historical Data and Forecasts

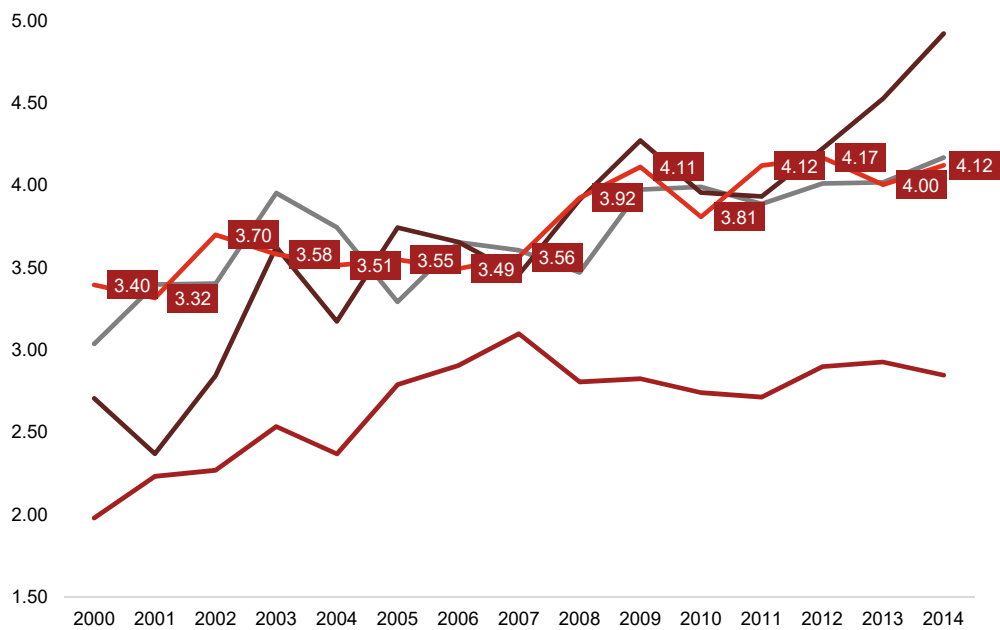


- Thailand's healthcare market was valued at USD26.97bn with a 6.08% y-o-y growth in 2016.
- The Nation Health Security Office have reported a reduction in the country's healthcare budget for the year 2017.
- An increase in foreign patients from the medical tourism scheme and the fast ageing population is expect to maintain growth in this industry.
- The outlook for this sector will be focus on new regulations and policy's under way which may significantly affect the private sector spending.

Source: BMI, WHO

Overview of the sector

Healthcare expenditure, total (% of GDP)



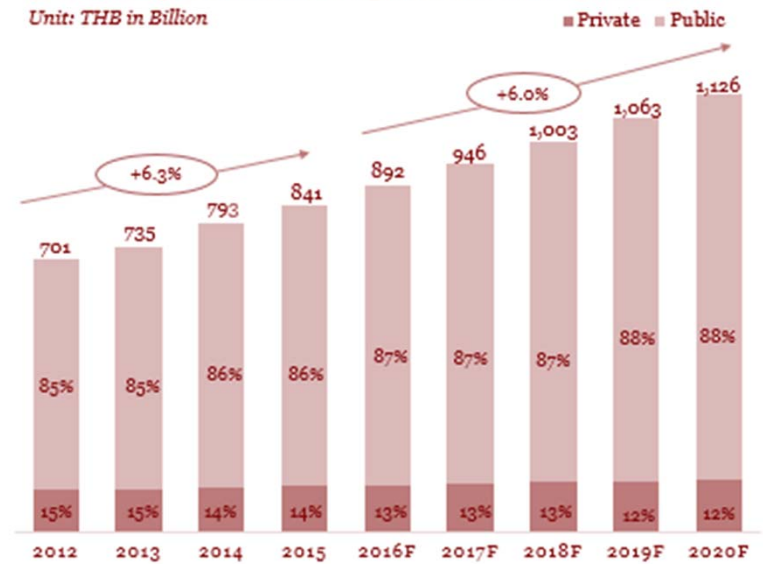
- Singapore
- Malaysia
- Thailand**
- Indonesia

Source: WHO

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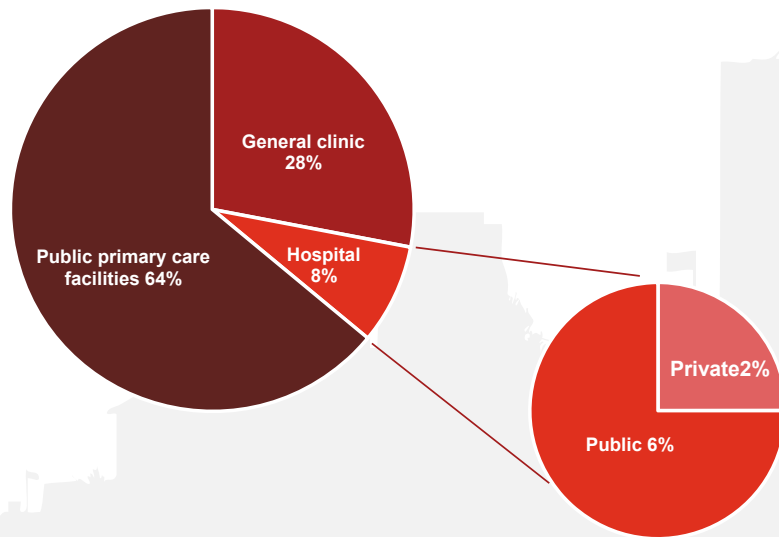
Increasing Healthcare Expenditures in Thailand

Unit: THB in Billion



Overview of the sector

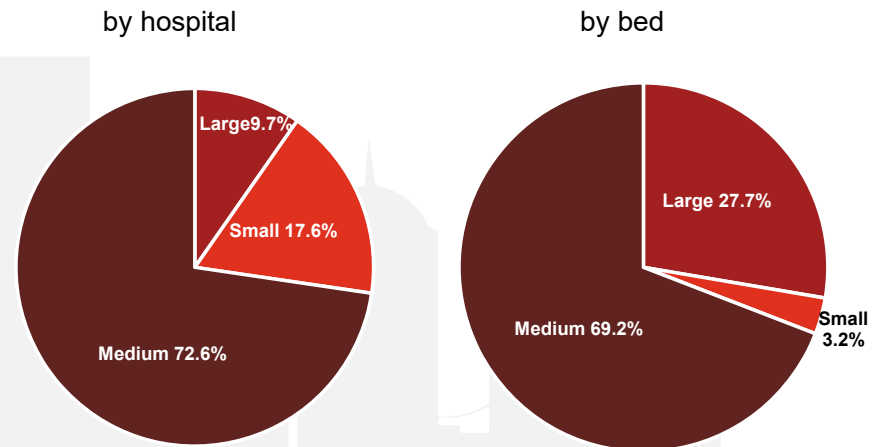
Number of Healthcare Facilities and Thailand



Source: Bureau of Policy and Strategy, MOPH (October 2015)

Source: BAY Research Thailand industry outlook 2016 - 2018: Private hospital industry

Share of Private Hospital (2014)



Source: MOPH, compiled by Krungsri Research

Note: Small size: 1-30 beds
Medium size: 31-200 beds
Large size: more than 200 beds

Overview of the sector

Private hospitals are mainly in Bangkok. The competition will be higher as private hospitals have to compete with other private players as well as public hospitals that offer the same level of services as the privates'

Number of private hospitals receiving overnight-stay patients						
2015	No.	%	Growth	Beds	%	Growth
Bangkok	104	30.3%	2.0	13,935	40.2%	-1.9
Other regions	239	69.7%	5.3	20,729	59.8%	3.0
Total	343	100%	4.3	34,664	100%	1.0

Source: Ministry of Public Health, 2016

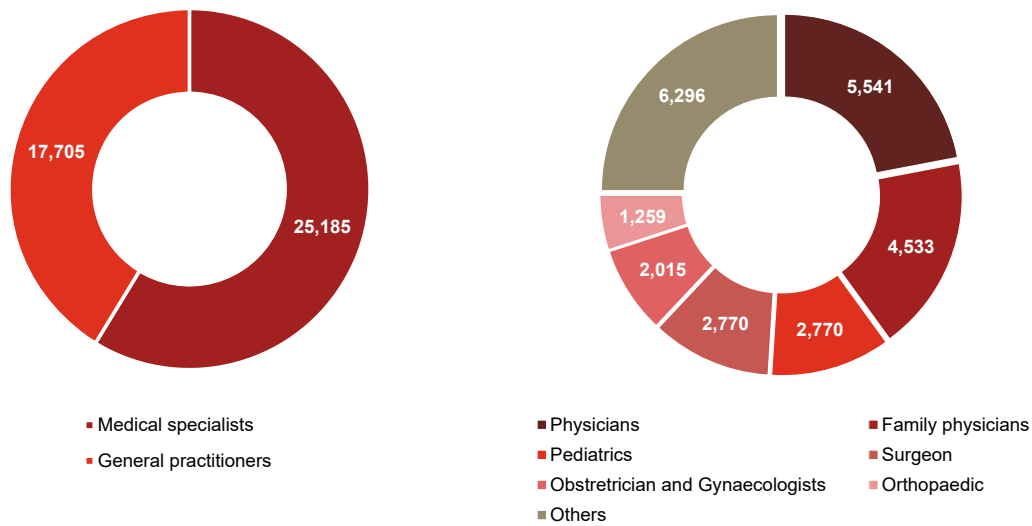
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Overview of the sector

The shortage of specialists is the main challenges for healthcare services in tier 2 cities. The shortage affects directly for sophisticated medical devices as there are insufficient resources to operate them.

Number of physicians in Thailand by specialties, 2011



Top three specialist shortage in Thailand

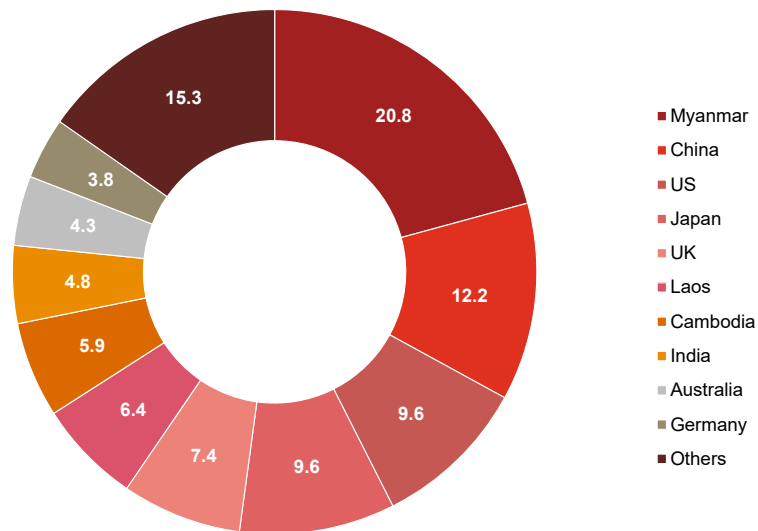


Source: Solidiance, The future of Thailand's healthcare industry in tier 2 cities: Outlook 2015 - 2020,

Overview of the sector

Changes in the Middle east countries' policies means growth from international patients will come from growing CLMV market

Percentage of foreign patients receiving medical services from private hospitals in Thailand



Source: Division of International Healthcare, 2012

Overview of the sector

Thailand's edge in the healthcare and well-being industry lies in our geographical location, and abundance natural resources and our experiences in the services industry

Three main segments for medical hub policy

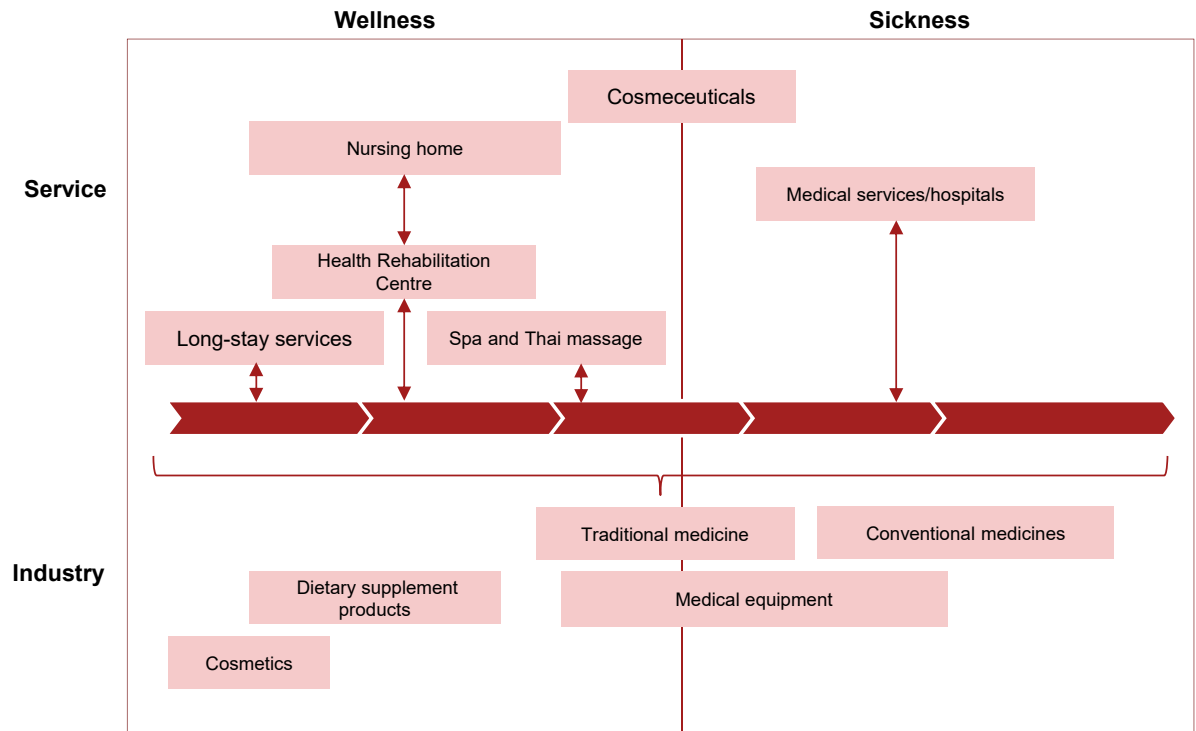
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Medical services
- 

Pharmaceutical Sectors
- 

Medical Devices

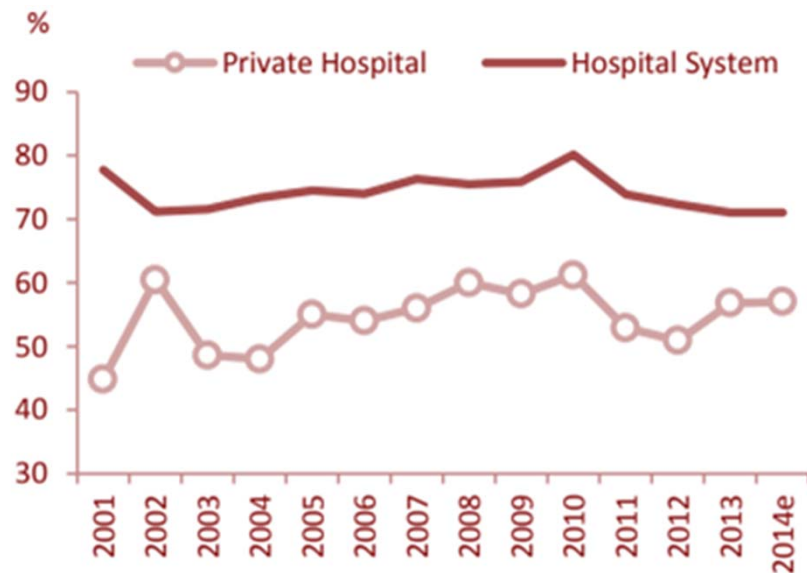
Source: The Board of Investment of Thailand (BOI)



Overview of the sector

Governmental clinics and hospitals have a very **bed occupancy rate (BOR) estimated at 80%** causing long wait time and other inconveniences. This represents market opportunities for private hospitals to fill the void created by the inadequacy of public health facilities by providing the needed services.

Bed Occupancy Rate (BOR)



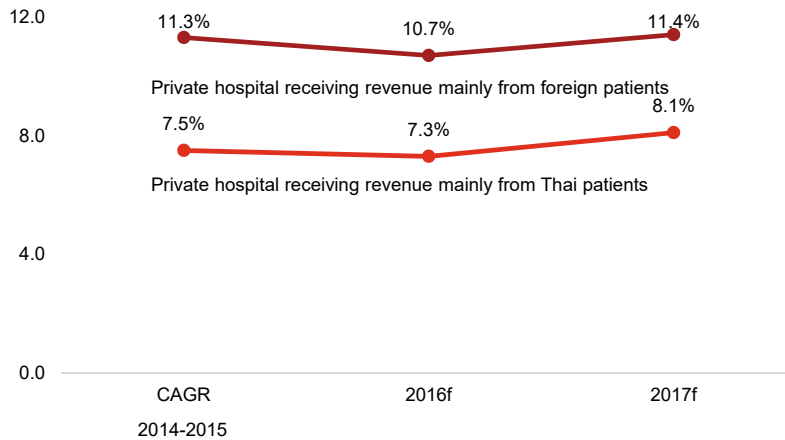
Source: BAY Research Thailand industry outlook 2016 - 2018: Private hospital industry

Overview of the sector

In the recent years, the Middle eastern countries have changed their healthcare policy to encourage patients to receive treatment domestically. However, Thailand still continues to attract medical tourist from other countries including CLMV, resulting in continuous growth.

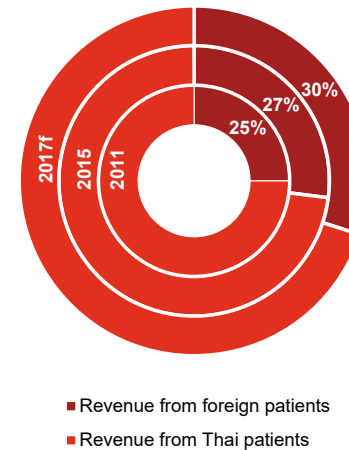
Private hospital receiving revenue mainly from foreign patients

Private hospitals where its patients are mainly foreigners see higher growth than those serving Thai patients



Source: Kasikorn research center

Revenue from foreign patients, especially medical tourists, grow continuously



Key markets: Myanmar, Middle East, Japan, the United States

Overview of the sector

Thailand has a national development plan to become medical hub since 2004. And despite the growing competition in the region to attract this group of tourist, and decreasing number of Middle eastern visitors, previously mentioned, the country still has other supporting key factors.

Comparison of medical treatment costs

Procedure :	United States	India	Thailand	Singapore
Coronary Angioplasty	28,200 \$	5,700 \$	4,200 \$	13,400 \$
Heart Bypass	123,000 \$	7,900 \$	15,000 \$	17,200 \$
Hip Replacement	40,364 \$	7,200 \$	17,000 \$	12,000 \$
Gastric Bypass	25,000 \$	7,000 \$	16,800 \$	13,700 \$
Hysterectomy	15,400 \$	3,200 \$	3,650 \$	10,400 \$
Lasik (2 eyes)	4,000 \$	1,000 \$	2,310 \$	3,800 \$
Dental Implant	2,500 \$	900 \$	1,720 \$	2,700 \$
Breast Implant	6,400 \$	3,000 \$	3,500 \$	8,400 \$

Source: medicaltourism.com (2015)

Medical procedures in Thailand cost less than those in North America (e.g. USA) and Singapore.

Source: BAY Research Thailand industry outlook 2016 - 2018: Private hospital industry, Bangkok Post

Visa scheme

Medical-related

travel visa

- The stay is lengthened from 30 to 90 days (extended from 30).
- Each patient is allowed to bring up to four companions.
- Visa is granted to:
 - 1) Patients and families from the countries in the Gulf Cooperation Council (GCC)
 - 2) Scandinavian countries
 - 3) Cambodia, Laos, Myanmar, Vietnam (CLMV) and China.
 - 4) Japan, Bhutan, Bangladesh, Sri Lanka and Nepal

An extension for long-stay visa

- Period: 1 year to 10 years
- Who: senior visitors (aged over 50 years) of 14 countries including:

1. Australia	8. Italy
2. Canada	9. Japan
3. China	10. Norway
4. Denmark	11. Sweden
5. Finland	12. Switzerland
6. France	13. United Kingdom
7. German	14. United States for America

Overview of the sector

As a result of overcrowded public hospital and increasingly expensive private hospitals, the patients' behaviours have changed – more dependent on pharmacies and other healthcare alternative.

Factors influencing decision on medical services

61%

Receive healthcare benefit

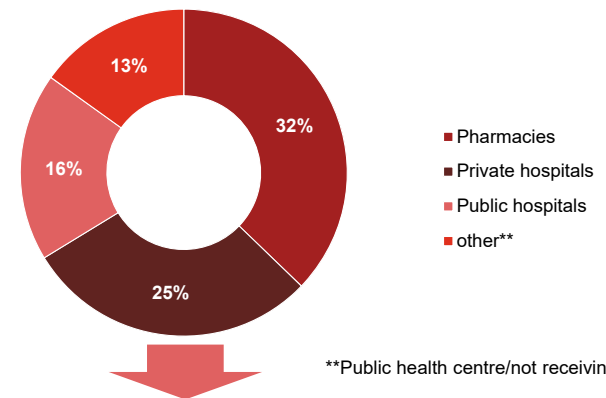
60% Travelling convenience

52% Reputation/credibility of hospitals and doctors

150-200 baht/visit

Source: Kasikorn Research Center

Pharmacies are the first choice for those with common illness



70% of those who buy medicines from pharmacies do not have private hospital welfare (Group insurance/employee benefits)

An average amount spent at pharmacies

Key segments

Medical tourists

Key markets: Myanmar, Japan, Middle East, Europe

New high growth market: ASEAN, China



Expats residing in Thailand

It is expected that ASEAN Economic Community (AEC) will attract foreigners, especially from Japan, South Korea, the US and Europe, many of which will be accompanied by their families



The elderly

An increasing number of aging population means more opportunities for nursing home.



Alternative medicine/ traditional medicine

Health-conscious trend opens up more opportunities for fitness centre, annual health check up packages, spa, healthy food and supplement



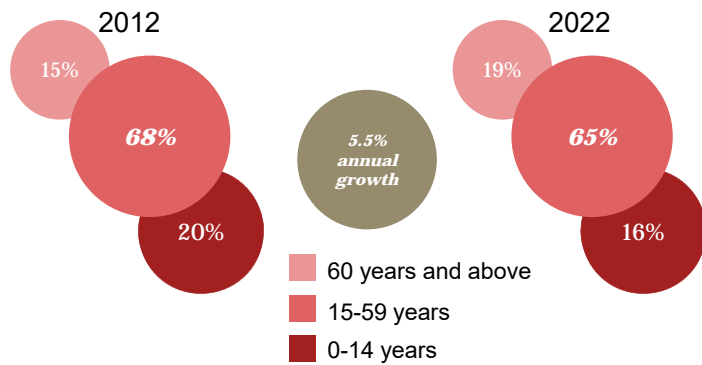
Source: Government Savings Bank research



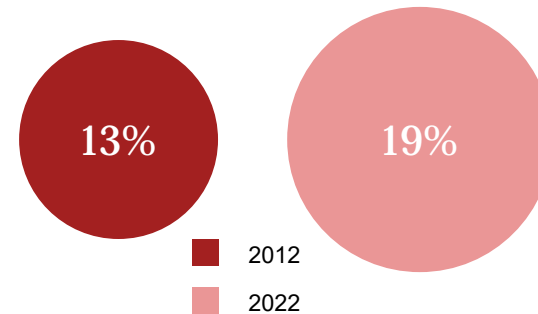
Opportunities going forward

Rapid aging population

Percentage of Thai population by age group



Thailand will become an aged society by 2022 as the number of senior citizen is expected to account for 19% of the total population



Total percentage of older population in Thailand

Region	2005	2015	2025
Bangkok	8.6%	11.9%	18.6%
Central (excl Bangkok)	10.8%	13.1%	17.9%
North	12.1%	16.0%	23.9%
Northeast	9.6%	14.7%	21.4%
South	10.4%	13.2%	17.8%

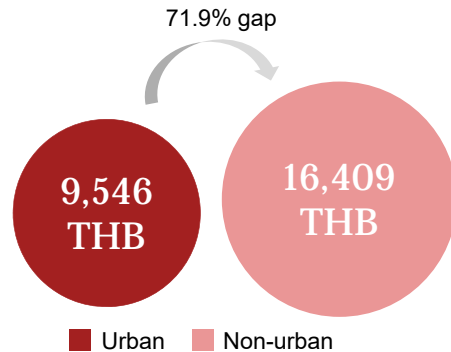
Source: Solidiance, The future of Thailand's healthcare industry in tier 2 cities: Outlook 2015 — 2020

Implication

- Demand for healthcare services is expected to grow as aging population will increase the demand for both medical treatment and care
- Treatment and care for chronic diseases will be among the primary focus for maintaining elder citizens
- Aging population boom puts pressure for the government to plan for facilitating the change by improving medical facilities and personal in public hospitals

Urbanisation – demands for facilities in tier 2 cities

Urbanisation in Tier 2 cities boosts the purchasing power of local people.
Urban population earns 71.9% more than those in rural area.



Implication

- Urbanization outside Bangkok is one of the key drivers for private hospitals investment.
- Higher purchasing power consumers to request better and faster healthcare services.
- People are more willing to pay extra for similar healthcare services in private hospitals as services come faster and with better standard.

Source: Thai BOI, Solidiance, The future of Thailand's healthcare industry in tier 2 cities: Outlook 2015 - 2020

Urbanisation – demands for facilities in tier 2 cities

	Population per doctor	Population per dentist	Population per pharmacist	Population per professional nurse	Population per technical nurse
Total	2,035	9,352	5,317	436	9,716
Bangkok		5,458	2,769	205	1,671
Central (excl Bangkok)	1,939	9,145	4,655	451	16,083
North	2,342	8,801	5,623	453	21,418
Northeast	3,207	12,732	7,599	603	17,309
South	2,488	8,728	5,521	406	19,545

Source: Ministry of Public Health

Doctor per patients

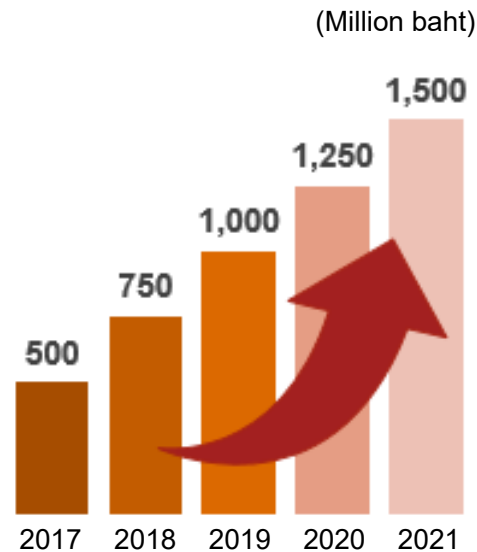


Source: Thai BOI, Solidiance, The future of Thailand's healthcare industry in tier 2 cities: Outlook 2015 - 2020

Alternative medicine

The Government sets its goal to provide more access to quality alternative healthcare and traditional medicine

Investment budget for alternative medicine R&D as part of Thailand 4.0



Source: Thai Traditional Medicine Research Institute (TTMRI) and The Government Public Relations Department

R&D budget

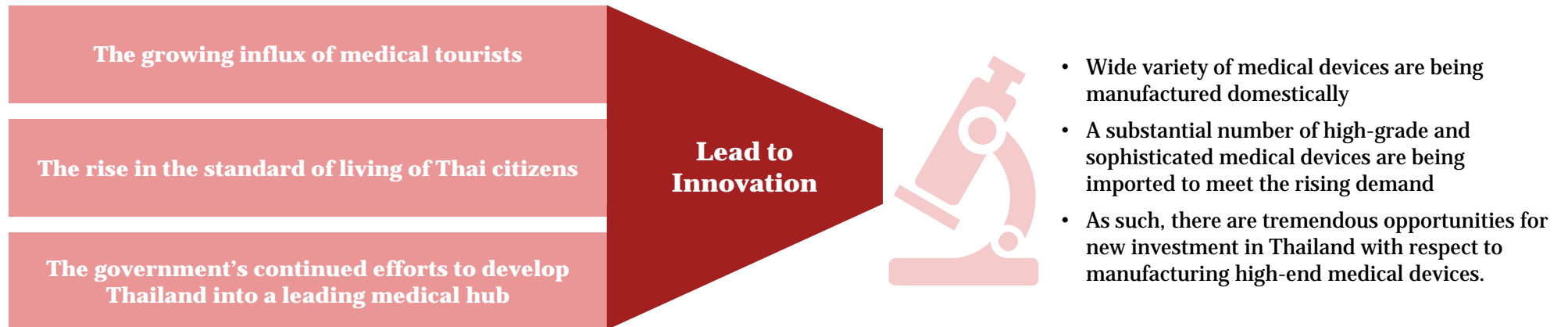
- The R&D budget are aimed for **medical and marketing purposes** as well as to drive a **research on herbal plants**

Policy on Thai herb products

- The Government wants to develop the quality of Thai herbal products to open up new opportunities for the people and to promote Thailand as a major centre for herbal products in the world.
- The Government has a policy to support the research and development of **herbal plants** to be **processed into high-quality goods**.
- The policy will add value to Thai herbal products and expand them to the **world market**, especially **ASEAN**. The Thai herbal market is growing by 15-20 percent a year, valued at **48 billion baht** annually.

Medical equipment

Thailand's medical device market has continued to thrive due to several key factors:



Source: The Board of Investment of Thailand (BOI)



Potential investment opportunities

The Board of Investment in Thailand (BOI) investment scheme

BOI offers a wide range of tax and non-tax incentives for projects that meet national development objectives

Tax incentives

Group	Eligible activities	Incentives	
		Corporate income tax exemption	Exemption of import duty*
A1	Biotechnology: <ul style="list-style-type: none"> R&D activity and/or manufacturing of biopharmaceutical agents Projects with R&D and/or manufacturing of diagnostic kits for health, agriculture, food and environment Manufacturing of high-risk or high-technology medical devices that involve R&D and innovation 	8 years without cap	Yes
A2	Manufacture of: <ul style="list-style-type: none"> Medical food and supplements High-risk or high-technology medical devices that does not involve R&D and innovation Medical devices that are commercialized from public sector research or collaborative public-private sector research 	8 years	Yes
A3	Manufacture of other medical devices (except for medical devices made of fabrics or fibers)	5 years	Yes
A4	Manufacture of medical devices made of fabrics or fibers	3 years	Yes
B1	Projects in health rehabilitation centers	No	Yes

Source: The Board of Investment of Thailand (BOI)

Non-tax incentives

These activities also receive the following non-tax incentives:

- 1 Permit to bring in expatriates
- 2 Permit to take or remit foreign currency abroad
- 3 Permit to own land

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