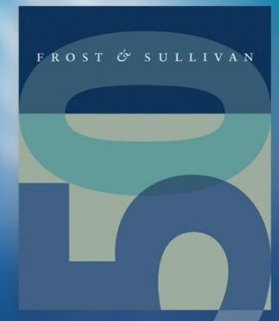


Indonesia Healthcare Outlook

Indonesia Healthcare Outlook: Value Proposition and Market Entry
Guides for Indian Investors



03rd November 2016

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Methodology and Scope

This research service focuses on the Indonesian healthcare market, providing a detailed overview of the healthcare landscape and opportunities for investment. A brief overview of the tendering process, incentives for investors, and distributor network have also been included.

This study broadly discusses the revenue forecasting of the healthcare market, but does not provide a discussion of the companies which are involved with research & development (R&D) or services in details.

Company profiles of those companies which are currently or imminently prominent and or may be of interest for investors in Indonesia have been included.

The information contained in this research service was derived from published sources including the following: Government of Indonesia Websites, healthcare company websites, World Health Organization (WHO) data, World Bank data, International Monetary Fund (IMF) and press releases, public sources, Frost & Sullivan's internal data bank, and industry key opinion leaders (KOLs). Primary and secondary research methodologies were used to gather and analyse the data presented in this study.

Source: Frost & Sullivan

Executive Summary

Indonesia Country Highlights

<p>Universal Health Coverage</p>	<p>Indonesia has been looking at ways to continue to support their ambitious plan of the largest Universal Health Coverage, of which they are now looking at raising the premiums to sustain the system which has since been in deficit</p>
<p>Rise in lifestyle-related diseases</p>	<p>Urbanization and the rising middle class, with its rather unhealthy lifestyle, is expected to drive an increase in lifestyle-related diseases</p>
<p>Private health care services see opportunity</p>	<p>Private hospitals, pharmaceutical producers and Healthcare IT companies are expanding into the Indonesian market. Indonesia is seeing an inflow from Singapore, Malaysia and Thailand entering the Indonesian healthcare space</p>
<p>Lack of human resource and infrastructure limits Indonesia</p>	<p>Lack of infrastructure and human resources limiting the effectiveness of the Universal Health Coverage. This is evident as the costs continue to rise and the government seeks to plug in the leaks. Private healthcare providers are seeing this trend benefiting them as they become the next source for healthcare services</p>

Source: Frost & Sullivan

Indonesia Predictions

Socio-
Political



Government is attempting to keep the Universal Health Coverage running and will be revising premiums to ensure its sustainability. Private insurance will see an increase in uptake as more Indonesians become aware of the benefits.

Economic



The Indonesian government is expecting to increase the contribution to its Universal Health Coverage as the funding created runs in hundred millions of deficit

Health



Quality of health and healthcare is expected to increase exponentially as more healthcare services providers enter and establish themselves in Indonesia.

Technology



Technology will be the driving force in enabling healthcare provision throughout the fragmented market of Indonesia. Healthcare technology rise will be driven by the entry of foreign private healthcare providers.

Regulatory



The launch of AEC will be expected to increase competition in the healthcare sector mostly in the urban areas. Regulations on business ownership in Indonesia will be more encouraging to foreign entities as they help ease the pressure from public hospitals.

Note: The base year is 2015. Source: Frost & Sullivan

Market Segmentation—Healthcare Markets in Indonesia. Focus of the report is on hospital and pharmaceutical market



Hospital Market

The hospital market primarily includes private hospitals of Indonesia, as it is difficult to estimate the market size of public hospitals (budget allocated versus spent are grossly under-reported and reflect inflated numbers).



In-Vitro Diagnostic (IVD) Market

The in-vitro diagnostic (IVD) market includes segments such as molecular diagnostics and microbiology.



Medical Technology (MT) Market

The medical technology (MT) market comprises medical imaging, radiation devices, and consumables, among others. Medical imaging includes X-rays, CT, MRI, and consumables used for imaging services while medical devices include patient monitoring, imaging, and others such as gloves, catheters, and other rubber-based products used in the healthcare market.



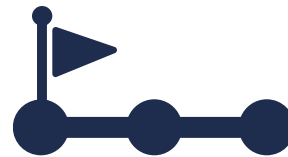
Pharmaceutical Market

The pharmaceutical market includes branded and generic drugs sold in the country.

Source: Frost & Sullivan

What Does the Indonesian Healthcare Market Offer?

The World Bank estimates Indonesia's National Health Insurance, Jaminan Kesehatan Nasional (JKN), to cost \$13-\$16 billion per year once it is fully implemented. Will that imply subsidised healthcare insurance to another 86.4 million citizens? Will that also create the demand for healthcare services in Indonesia?



**JKN was introduced
in January 2014**



To Cover All Citizens by 2019

- Demand for More Hospital Beds
- Demand for More Drugs (Generics)
- Demand for More Medical Equipment
- Demand for More Diagnostic Tests
- Demand for Qualified and Skilled Healthcare Professionals

With an increase in income per capita, and the expected subsidisation of medication and hospital insurance by the government, people are likely to move away from self-medication to seek treatment in clinics and hospitals.

Source: <http://uk.reuters.com/>; Frost & Sullivan

Who Will Benefit the Most from National Health Insurance?

Benefit		Badan Penyelenggara Jaminan Sosial (BPJS) Ketengakerjaan	Badan Penyelenggara Jaminan Sosial (BPJS)
Focus		<ul style="list-style-type: none"> Occupational health and accident Pension fund Death benefit Provident funds 	General health
Area of Coverage	Outpatient Care	Yes, only for occupational-related complaint or accident	Yes, as long as medically needed.
	Inpatient Care		
	Major Invasive Procedures		
	Other Benefit	<ul style="list-style-type: none"> Compensation for loss of income up to 6 months Disability allowance Death allowance and funeral cost 	No
Maximum Coverage (US\$)		No limit as long as medically needed	No limit as long as medically needed
Special Benefits (such as hearing and walking aids)		Yes	Yes
Exclusions		Fertility treatment, dialysis, cosmetic surgery, dental prosthetics, and cancer treatment	Fertility treatment, cosmetic surgery, dental prosthetics, and addiction-related treatment

The Indonesian population is at the centre of all services and is expected to get maximum access to quality healthcare services at an affordable cost.

Source: Frost & Sullivan

What are the Teething Issues Post Implementation of National Health Insurance (JKN)?

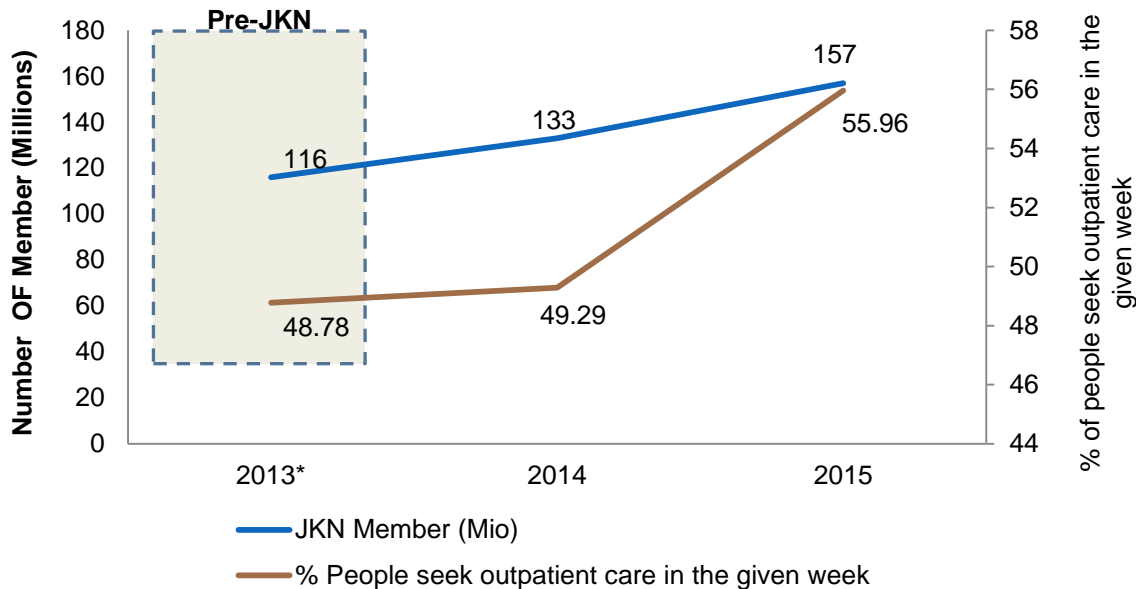
Till December 2013, the Ministry of Health had secured the participation of 9,217 community clinics and 1,710 hospitals (of 2,300) in the JKN.



Selected participating hospitals in the JKN have raised concerns over increasing working capital requirements after JKN implementation due to delays in receiving reimbursement from the government. One public hospital in Kalimantan, Timur, has indicated that it had received only 77% of the payment for its January claims (reported on 22, February 2014). This is indicative of the teething issues which were anticipated post the implementation of JKN from January 2014. However, the hospital market is hopeful that these issues will be soon taken care of and things will improve as the implementation gets streamlined.

Source: Frost & Sullivan

Percentage of People Who Seek Medical Treatment Increased After JKN was Implemented



*Before 2014, JKN was administered by PT Askes, Jamkesmas, and army and police organizations.

- ▲ JKN membership has increased by 35%.
- ▲ Percentage of people seeking outpatient care has increased by 15%.

Demand for Health Services had increased and predicted to increase further.

Does this imply that in the future, Indonesia will need more:

- **Doctors**
- **Nurses**
- **Hospital Beds**
- **Medical Equipment**
- **Consumables**
- **Pharmaceuticals**
- **Healthcare Services**

There will be more opportunities for companies in the private hospital, pharmaceutical, and medical device markets in the future.

Source: BPJS; Badan Pusat Statistik; Frost & Sullivan

How can the Private Investor Benefit from the JKN Scheme?

Pre-JKN Era (Till December 2013)

High Incidence of Diseases

2013

Cardiovascular
Diseases (including stroke) ↑

Diabetes ↑

Infectious Diseases
(including HIV deaths) ↑

Limited Access to Healthcare
(63%)

Private Hospital Market



Post JKN Implementation (2014 onwards)

249 Million Indonesians are expected to demand:

- Quality Healthcare Services
- Faster Screening of Diseases
- Advanced Medical Technology for Diagnosis
- Low cost, high-quality efficacious medicines

There has been an increase in middle-class income and healthcare spending year-on-year (YOY). Moreover, a large number of patients are likely to opt for private hospitals and clinics as well as diagnostic centres to avoid long queues in public hospitals. Due to this, the demand for medicines, equipment, and private hospitals will increase and further drive the Indonesian healthcare market in the futures.

Source: Frost & Sullivan

How can the Private Investor Benefit from the JKN Scheme? (continued)

Pre-JKN Era (till December 2013)

Pharmaceutical companies have been expanding their production capacity in anticipation of JKN's implementation in 2014. State-owned pharmaceutical companies such as **PT Kimia Farma** and **PT Indofarma** increased their production capacity by **123%** and **200%** respectively in **2013**.

Pharmaceutical Market



Post JKN Implementation (2014 onwards)

It is estimated that drug spends as a percentage of the total healthcare expenditure will be close to 19% after the implementation of JKN.

With more patients expected to get access to healthcare through JKN, the demand for prescription drugs will increase.

Local drug manufacturers such as the **Darya-Varia** group, **Konimex**, and **Tempo Scan Pacific** control about 75% of over-the-counter (OTC) medicines and are expected to continue their dominance over the market. OTC medicines covered 40% of the total pharmaceutical market in Indonesia in 2014.

Source: Frost & Sullivan

How can the Private Investor Benefit from the JKN Scheme? (continued)

Pre-JKN Era (till December 2013)

Consumables have been expanding at an average annual growth rate (**AAGR**) of **10.2% from 2008 to 2012.**

The medical imaging market was expanding at an AAGR of **15.9% from 2008 to 2012.**

Medical Technology (MT) Market



Post JKN Implementation (2014 onwards)

Consumables are expected to expand at a compound annual growth rate (**CAGR**) of **12.8% from 2013 to 2019.**

The medical imaging market is expected to expand at a **CAGR** of **18.2% from 2013 to 2019.**

Domestic consumption of the following are expected to increase:

- **X-ray films**
- **Developers**
- **Consumables such as gloves, chemicals, and catheters**
- **CT/MRI equipment and consumables associated with advanced imaging procedures**

Which Companies are Already Ahead of Others?

Siloam Hospitals Group

Siloam Group aims to build 40 hospitals (with 29 projects underway in 2014) with a bed capacity of 10,000 by 2017.

It has piloted a public-private hospital format, Siloam General Hospital (SGH), to treat low-income patients. SGH has participated in the JKN programme since January 2014. The number of outpatients has more than doubled since then.

Siloam maintains its leading position in the hospital industry in Indonesia and offers stiff competition to new entrants.



PT Kalbe Group

In anticipation of the universal healthcare scheme's increased demands for generics, the company invested \$12 million to build a new factory in West Java with a monthly capacity of 87 million tablets.

PT Kimia Farma

PT Kimia Farma runs one of the largest pharmacy networks in Indonesia with more than 500 outlets in 2013. The number is likely to increase to reach out to more patients post implementation of JKN.

Source: Company Website; Frost & Sullivan

What are the Current Roadblocks?

There are noble intentions to develop the market for foreign investors but a lot remains to be done.

The Indonesian government has mandated that all drugs that are registered locally be domestically manufactured.

Foreign investment in the domestic drug market has also been capped at 75%.

**Approval Process for Foreign Companies
Complex and Time Consuming**

Currently, foreign manufacturers have to set up their production unit in the country before they sell their products.

Will the *ASEAN be a game changer?

Currently, the ASEAN members including Malaysia have to set up manufacturing facilities for pharmaceuticals and do not get any exemption.

Despite all odds, it is difficult to ignore the potential of the Indonesian healthcare market due to increasing per capita income, rising domestic consumption, and growing population in the ASEAN.

*ASEAN stands for Association of Southeast Asian Nations
Image Source: psdgraphics.com; Source: Frost & Sullivan

CEO's Perspective

1

With the implementation of JKN in 2014, healthcare companies are now anticipating new purchasing processes to be chalked out by the government, more insurance from the insurance sector, and better accessibility for patients. Will these reforms make the market more transparent, or will they lead to complications in the wake of new supply-demand cycles in healthcare?

2

Indonesia still requires some focus on infrastructure and skilled manpower. Bureaucracy and regulations have been limiting foreign investors in the country.

3

Generics will evolve into a huge market due to the high demand for low cost medicines and strong government support. Multinational pharmaceutical companies will be expected to compete with local manufacturers when it comes to winning tenders in the public sector.



Source: Frost & Sullivan

Mergers, Acquisitions, and Partnerships—Some Key Deals

Key Takeaway: With an expected increase in the demand for healthcare services, equipment, and medicines, the market is expected to foresee more mergers and acquisitions over the next 2-3 years.

GSK Gains Full Control of its Healthcare Unit

In March 2014, GSK invested \$40 million to buy the remaining 30% share from Sarasvati Venture Capital and gained full control of the Indonesia unit. It reported sales of \$83.7 million in 2013. The company also plans to sell its Insto eye drops brand to Pharma Healthcare and is expected to sell its manufacturing site at Bogor, Indonesia, to PT Pharma Healthcare for a combined total of \$11.6 million.

Fresenius Kabi AG Enters the Southeast Asian Market

In February 2014, Fresenius Kabi AG agreed to buy a 51% stake in Indonesian drug maker PT Ethica Industri Farmasi from PT Soho Global Healthcare, Indonesia's oldest pharmaceutical company. The deal is estimated to be worth \$200 million. With the move, Fresenius Kabi has become the latest foreign company to invest in Southeast Asia's growing healthcare market.

Prudential and Standard Chartered Partnership

In March 2014, Prudential and Standard Chartered Bank entered into a bancassurance partnership for the next 15 years. In Indonesia, the health insurance sector is predominantly controlled by the top 10 participants (covering 75% of the market). The bancassurance model is highly popular here (33% of the overall market in December 2013).

Source: Reuters; Frost & Sullivan

Key Companies to Watch Out—Hospital Market

PT. Siloam Internasional Hospitals Tbk

Services: 18 Hospitals with 4,500+ beds

Manpower: 8,000 medical professionals

Revenue:

- Siloam reported a net profit of 8,174 Million in Q3, 2014, when its total revenue reached 847K Million.
- It has a significant lead, with a 7.4% market share by bed capacity (16 hospitals in 2013).

Strategic Imperative:

- Siloam opened a public health centre (Puskesmas) via a public-private partnership (PPP) model, which is the first of its kind in Indonesia (with a bed capacity of 250 beds and a 90% occupancy rate).
- It developed a UPH Medical Science (UPHMS) program to synergise healthcare with education and research.
- It aims to have 40 hospitals with 10,000 beds by 2017.
- It is evaluating the possibility of setting up a network of 10 community clinics to provide primary healthcare services.

Impact: Siloam is the largest private hospital operator by number of beds. Moreover, it is one of the most reputed hospitals in Indonesia.

Rumah Sakit Mitra Keluarga Group

Services: 11 Hospitals with 1,200+ beds

Manpower: 2,100 medical professionals

Revenue:

- Mitra Keluarga leads second in Indonesia with a 3.0% market share by the number of hospitals.

Strategic Imperative:

- Mitra Keluarga Hospital, the hospital operator of the Kalbe Group, plans to raise \$300 million from its initial public offering (IPO). Mitra Keluarga plans to use all the proceeds to build more hospitals, eventually expanding its networks to double its current number of centres.

Impact: It is the second largest private hospital operator by the number of beds.

Source: idnfinancials; Frost & Sullivan

Key Companies to Watch Out—Medical Technology (MT) Market

Philips Healthcare

Services: Medical devices in cardiology, oncology, respiratory disease, radiology, sleep disorders, and women and childcare.

Revenue:

- 40% of its sales is contributed by medical devices.

Strategic Imperative:

- From a staff of dozens, it is recruiting hundreds of employees in Indonesia and will boost the workforce ten-fold over the coming years.
- Recently, Philips inaugurated its representative office in Surabaya and Makassar. In the coming years, it plans to open 2 more representative offices.
- It developed a prototype scalable telehealth platform, the Mobile Obstetrical Monitoring (MoM) project, which will remotely monitor pregnant women for early high risk identification.

Impact: Lippo Group has made Philips its preferred supplier.

GE Indonesia

Services: Medical devices in imaging equipment and ultrasound

Revenue:

- In 2012, GE in Indonesia witnessed double-digit growth in terms of both sales and orders. It generated revenue of more than 1 billion.

Strategic Imperative:

- GE in Indonesia is committed to bringing technology and solutions designed to help improve rural healthcare. As part of its Developing Health Globally program, GE Foundation announced its \$3 million commitment over the next three years to help improve the quality of and access to healthcare as well as to help lower maternal and infant mortality rates in Indonesia's rural areas. As an example of GE's commitment to improving rural healthcare, in late September 2014, GE Healthcare launched the Vscan 1.3 in Indonesia. It is a handheld, pocket-sized screening device with ultrasound technologies adapted locally with a user interface in Bahasa Indonesia for use by medical general practitioners (GPs).

Impact: GE is the leading brand in CT scanning in Indonesia. So far, it has installed more than 4,000 pieces of equipment in Indonesia.

Source: Company Websites, Frost & Sullivan

Key Companies to Watch Out—Pharmaceutical Market

PT Kalbe Farma Tbk

Services: Pharmaceuticals, Clinics

Manpower: 17,000 people, including 6,000 sales and marketing professionals

Revenue: It registered net profit of 11.0% (year-on-year) to reach \$41.8 million (Q1, 2014), an increase of 16.5% from the same period in 2013.

Market: About 96.0% of the company's revenue comes from Indonesia.

Strategic Imperative:

- The company plans to expand to Myanmar, Vietnam, and the Philippines through joint ventures, mergers, or purchases over the next two years keeping in mind the formation of the ASEAN Economic Community 2015.
- In anticipation of the universal healthcare scheme's increased demands for generics, the company invested \$12 million to build a new factory in West Java with a monthly capacity of 87 million tablets.

Impact: Kalbe is Indonesia's and Southeast Asia's largest listed pharmaceutical company. It will give tougher competition to other multinationals post expansion.

PT Kimia Farma (Persero) Tbk

Services: Drugstores, Clinics, and Hospitals

Manpower: 5,332 people

Revenue: Its sales increased 16.4% from IDR 3.73 trillion in 2012 to IDR 4.35 trillion in 2013. Kimia Farma's net profit increased 4.6% from IDR 205.13 billion in 2012 to IDR 214.55 billion in 2013.

Strategic Imperative:

- Kimia Farma also operates 200 clinics offering primary healthcare services (GP and pharmacy).
- It plans to expand its clinic network to 1,000 outlets by 2018.
- It is developing a new liver speciality hospital (200 rooms) in Jakarta and evaluating the prospect of building up to 8 other hospitals in Bandung, West Java; Makassar, South Sulawesi; Medan, South Sumatra; Semarang, Central Java; and Surabaya, East Java.

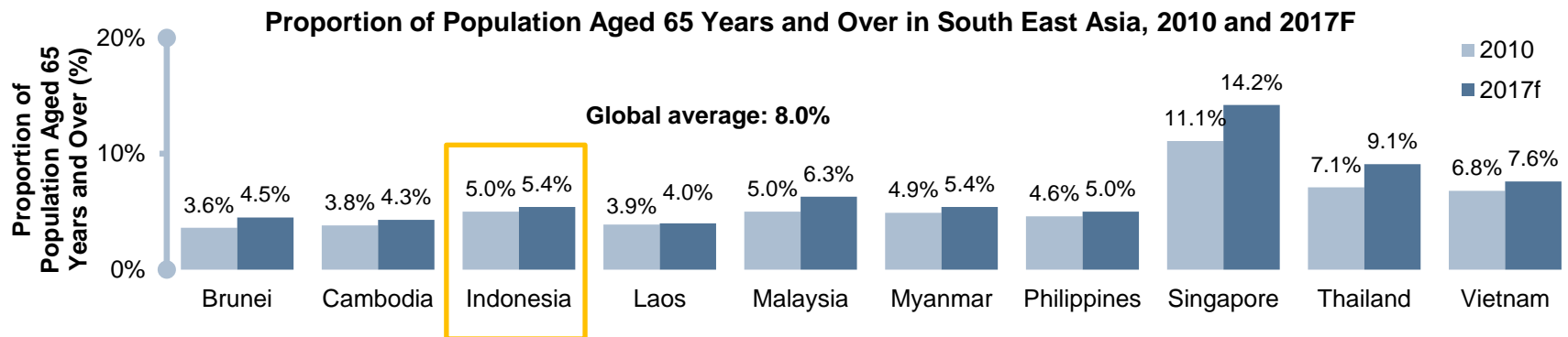
Impact: Kimia Farma is the largest operator of pharmacies in Indonesia with more than 500 outlets. It is moving from being a drug maker to a healthcare provider.

Source: Company Websites, Frost & Sullivan

Indonesia Macro Environment Overview

Indonesia: Demographic Trend - Continued

Key Takeaway: Indonesia is heading toward an ageing population. As elderly face a higher risk of disabilities and chronic diseases, a surge in medical costs and healthcare services will be expected to follow

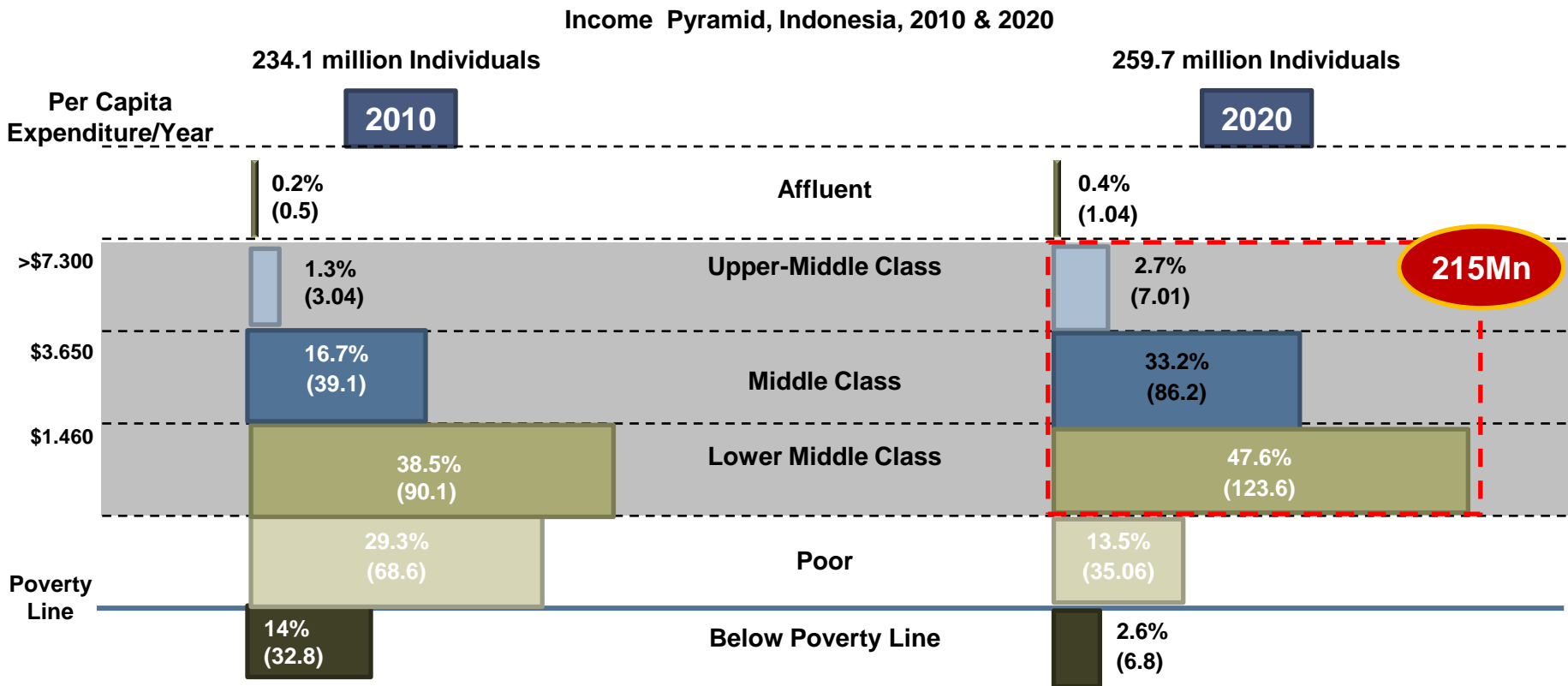


- Although Indonesia's population is not ageing at an alarming rate, it is still expected to lead to an increase in demand for healthcare services in the fourth most populous country due to the sheer size of people aged 60 years and over. With 5.0% of its population aged 65 or over in 2010, Indonesia has a similar elderly demographic as compared to Malaysia and Myanmar in 2010, but is still below the global average of 8.0%.
- In 2017, World Bank estimates show that Indonesia will have 14.4 million people aged 65 years and above.
- Health care expenditure will continue to increase to support Indonesia's rising elderly population, with a life expectancy of 68.9 in 2014, rising to an average 70.1 years in 2020.
- There will be the need for greater investment in healthcare infrastructure, which can be met through a stronger participation of the private sector or foreign investors in the healthcare services market.

Source: IMF, United Nations BPS, World Bank, Frost & Sullivan analysis

Indonesia: Middle Income Trend

Key Takeaway: The rapidly growing middle class with their increasing level of health awareness and affordability for private insurance will drive the demand and consumption of healthcare services and goods



Note: World Bank defines Middle Class as those individuals who spend \$2-20 per day
 Figures in the brackets are millions of individuals. Numbers are round up

Source: BAPPENAS, World Bank, Frost & Sullivan 2012

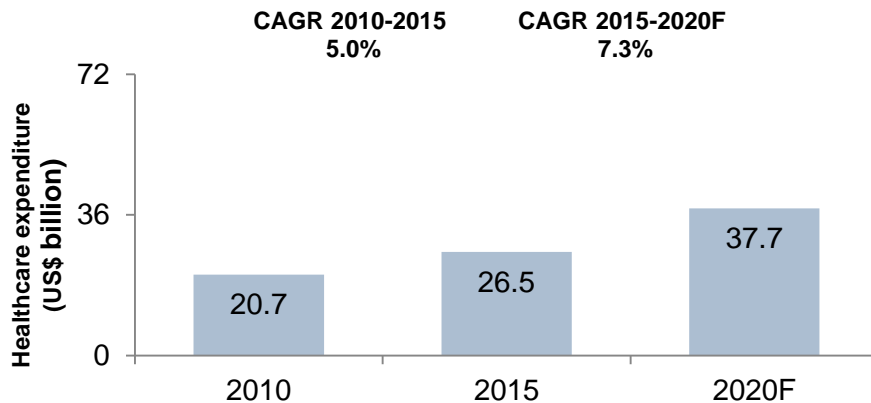
Healthcare Market in Indonesia

Indonesia Healthcare Expenditure Overview

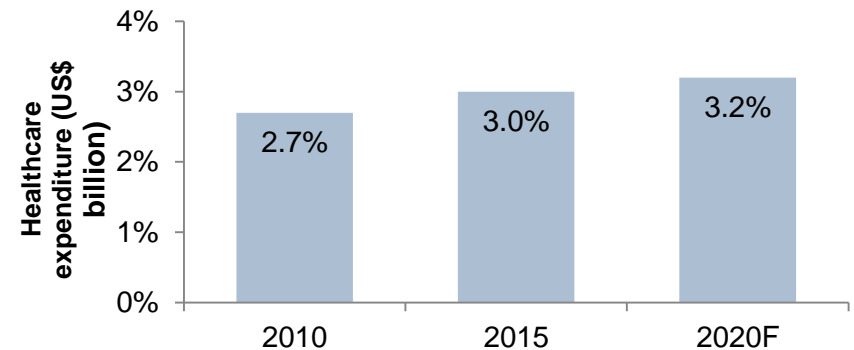
Indonesia: Total Healthcare Expenditure

Key Takeaway: As health care expenditure continues to grow at a CAGR of 14.7%, demand for healthcare services is expected to increase

Total Healthcare Expenditure in Indonesia, 2010-2019F



Total Healthcare Expenditure as a % of GDP in Indonesia, 2010-2019F

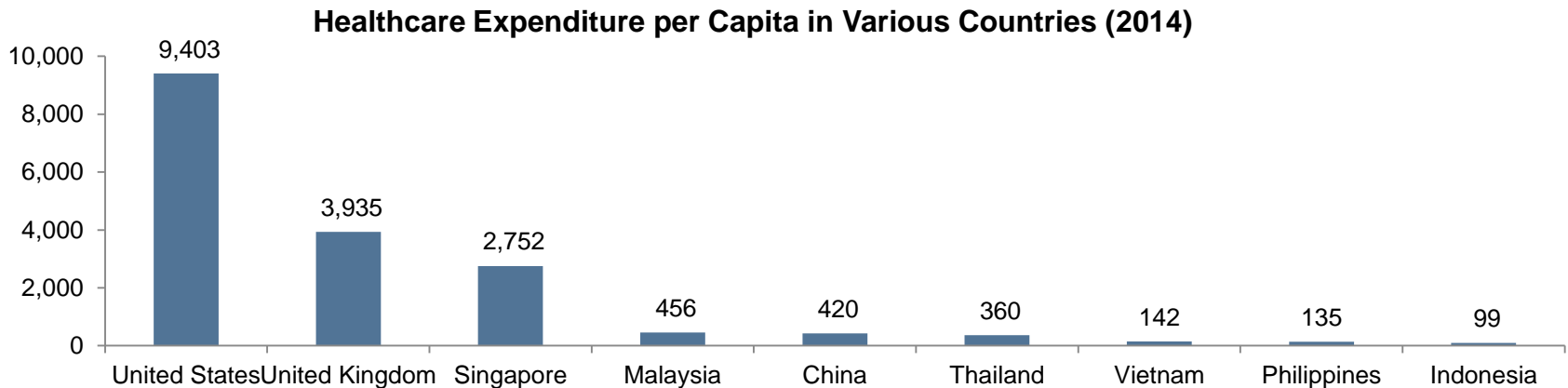


- Indonesia had the lowest spending on healthcare as percentage of its GDP i.e. 3.6% in 2015 and among the lowest in the region when compared with neighboring countries like Singapore (5.8%), Malaysia (4.3%) and Thailand (4.2%).
- Indonesia is an attractive healthcare market as it consistently increases its healthcare expenditure annually at a CAGR of 14.7%. In 2015, Indonesia spent 3.6% of its gross domestic product on healthcare. Its total expenditure is forecasted to reach US\$53 billion in 2017.
- The spending pattern is a strong indicator that there is a strong growth opportunity for private hospitals, especially given favorable demographics, rising incomes and under penetration in tier II and III cities, leading to increase of total healthcare expenditure as proportion of GDP.

Source: WHO Data Series, Frost & Sullivan Analysis

Indonesia: Healthcare Expenditure per Capita

Key Takeaway: Indonesia's healthcare expenditure per capita of US\$ 99 in 2014 is among the lowest in the region



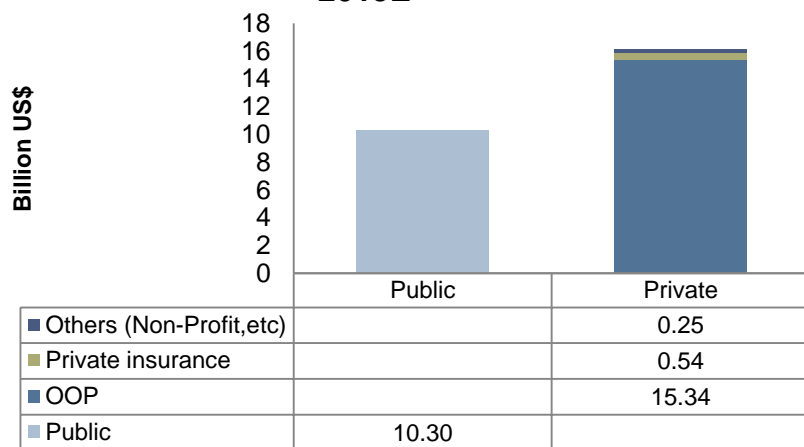
- Indonesia spends relatively less on healthcare services per capita compared to its neighboring countries. Health spending tends to rise with incomes and as Indonesia spends relatively less on health as a percentage of its GDP, its per capita spending also tends to be low.
- Indonesia still lags behind Singapore, Malaysia and Thailand, where all these countries have a fully developed healthcare system in place, especially in the public sector coverage.

Source: World Bank, Frost & Sullivan

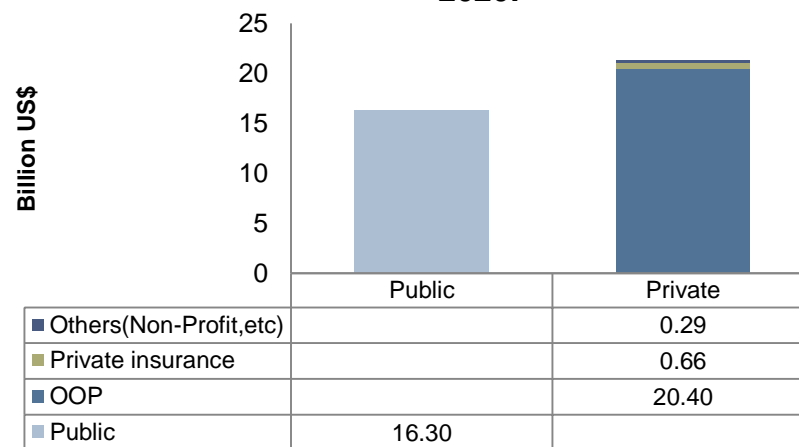
Indonesia: Public and Private Healthcare Expenditure

Key Takeaway: Government's contribution to total healthcare expenditure will continue to rise with the implementation of the JKN scheme

Components of Public and Private Sources of Funding for Healthcare Services in Indonesia
2015E



2020F



- Since 2004, around 40% of healthcare expenditure was undertaken by government or public agencies and 60% by the private sector. This composition has not changed materially till 2015 where private healthcare expenditure remains the main source of funding.
- Further, the largest single source of private expenditure is direct out-of-pocket payments by households in Indonesia. However, by 2020, it is expected to have equal proportions of public and private expenditure.
- Indonesia, along with Singapore and India, are the countries with the lowest public expenditure on health. However, the Indonesian Ministry of Health has allocated IDR 31.4 trillions (USD 2.6 billion) in their 2014 budget which reflects the government's focus in delivering a public health system that can support the delivery of universal healthcare coverage for the entire population by 2019.

Source: WHO Data Series, Frost & Sullivan Analysis

Indonesia Healthcare Insurance Overview


Indonesia's Universal Health Coverage Scheme & Private Insurance

Public Health Insurance Overview

- Indonesia's government launched a compulsory national health insurance system with the aim of making basic health care available to all by 2019
- Jaminan Kesehatan Nasional (JKN) was implemented by the newly-formed social security agency (BPJS)
- JKN care aims to be comprehensive, covering treatment for everyday concerns such as flu through to open-heart surgery, dialysis and chemotherapy
- Currently, approximately 165 million citizens are enrolled in BPJS Health

Private Health Insurance Overview

- Indonesia's private insurance penetration is estimated at 8% or roughly 20 million people
- Privately insured persons are mostly concentrated in urban areas
- There is an increasing number of people in the middle income group who can afford private insurance
- Rise in demand for public services is expected to push more affluent Indonesians toward private sector medical care, seeking either faster or higher quality service

- 
- Public health insurance scheme is expected to be compulsory for all citizens by 2019
 - A Coordination of Benefits (CoB) scheme offers private insurers the chance to capture the middle segment of the market by offering upgraded treatment on top of basic healthcare guaranteed by the government
 - e.g. patented drugs
 - e.g. add-ons such as upgraded rooms
 - The details of a CoB agreement between private insurers and BPJS Health have yet to be finalized.

Source: MOH and Frost & Sullivan Analysis

Indonesia's Universal Health Coverage Scheme & Private Insurance - Continued

Type	Scheme	Funding Source	Key Trends / Issues	Can be Reimbursed	Cannot be Reimbursed
Government schemes	Jaminan Kesehatan Nasional (JKN) – Universal Health Coverage (UHC)	<p>Poor/Near-poor</p> <ul style="list-style-type: none"> Fixed premiums of IDR 19,225 contributed by the central government from general taxation <p>Civil servants, military, veterans and formal sector employees</p> <ul style="list-style-type: none"> Salary-based contributions of 5% of monthly salary to be paid by employers (4%) and employees (1%) <p>Informal sector workers/ self-employed</p> <ul style="list-style-type: none"> Fixed monthly premium contribution of IDR 25,500 (Class 3), IDR 42,500 (Class 2), and IDR 59,500 (Class 1) 	<ul style="list-style-type: none"> BPJS Health, which administers UHC, has realized deficits, mainly due to a higher than anticipated claims ratio of 104% versus a budget of 90% Severe shortage of human resources & infrastructure (hospital beds) at public hospitals to handle growing patient load leading to long waiting times and reduced quality of care Low number of private hospitals joining the program 	<ul style="list-style-type: none"> Outpatient treatment including cost of medicines Hospitalization at public and private empaneled hospitals Benefits under the JKN are comprehensive, covering treatment for infectious disease such as influenza as well as expensive medical interventions such as open-heart surgery, dialysis and cancer therapies 	<ul style="list-style-type: none"> Health services that do not follow the procedure set Health services in health facilities that do not co-operate with the BPJS Health services abroad Health services to conceive a child Health services for beauty purposes Health disorders or diseases caused by addiction to drugs and/or alcohol Alternative medicine
		<ul style="list-style-type: none"> Self-funded or employer 	<ul style="list-style-type: none"> Indonesia's health insurance industry is plagued with a 24% fraud rate for health insurance claims 	<ul style="list-style-type: none"> Majority of private health insurance schemes provides benefits for hospitalization, ambulances and medicines. With added premiums, some companies offer outpatient care 	<ul style="list-style-type: none"> There are restrictions that limit the benefits of the term called the insurance ceiling The ceiling could be based on time or type of diseases
Private Schemes	Private Health Insurance				

Source: BPJS and Frost & Sullivan analysis

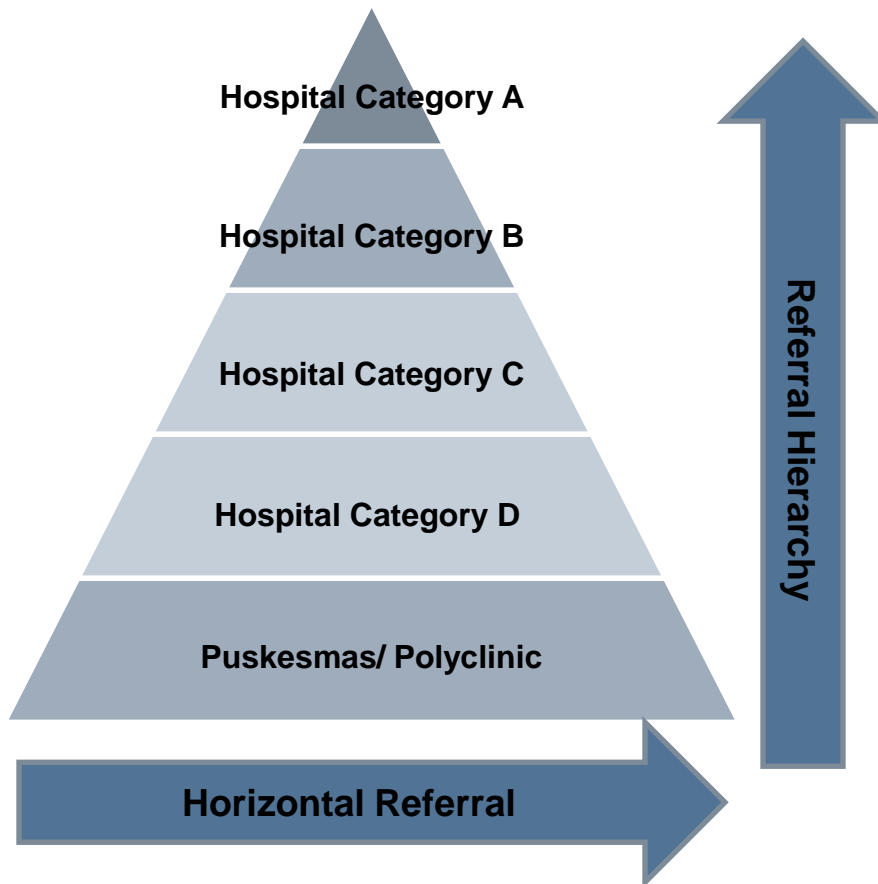
Source: Frost & Sullivan

Indonesia Healthcare Value Chain Overview

Healthcare Services (UHC) Referral Hierarchy

Key Takeaway: Healthcare services through the UHC scheme are provided through a structured referral mechanism starting from Puskesmas

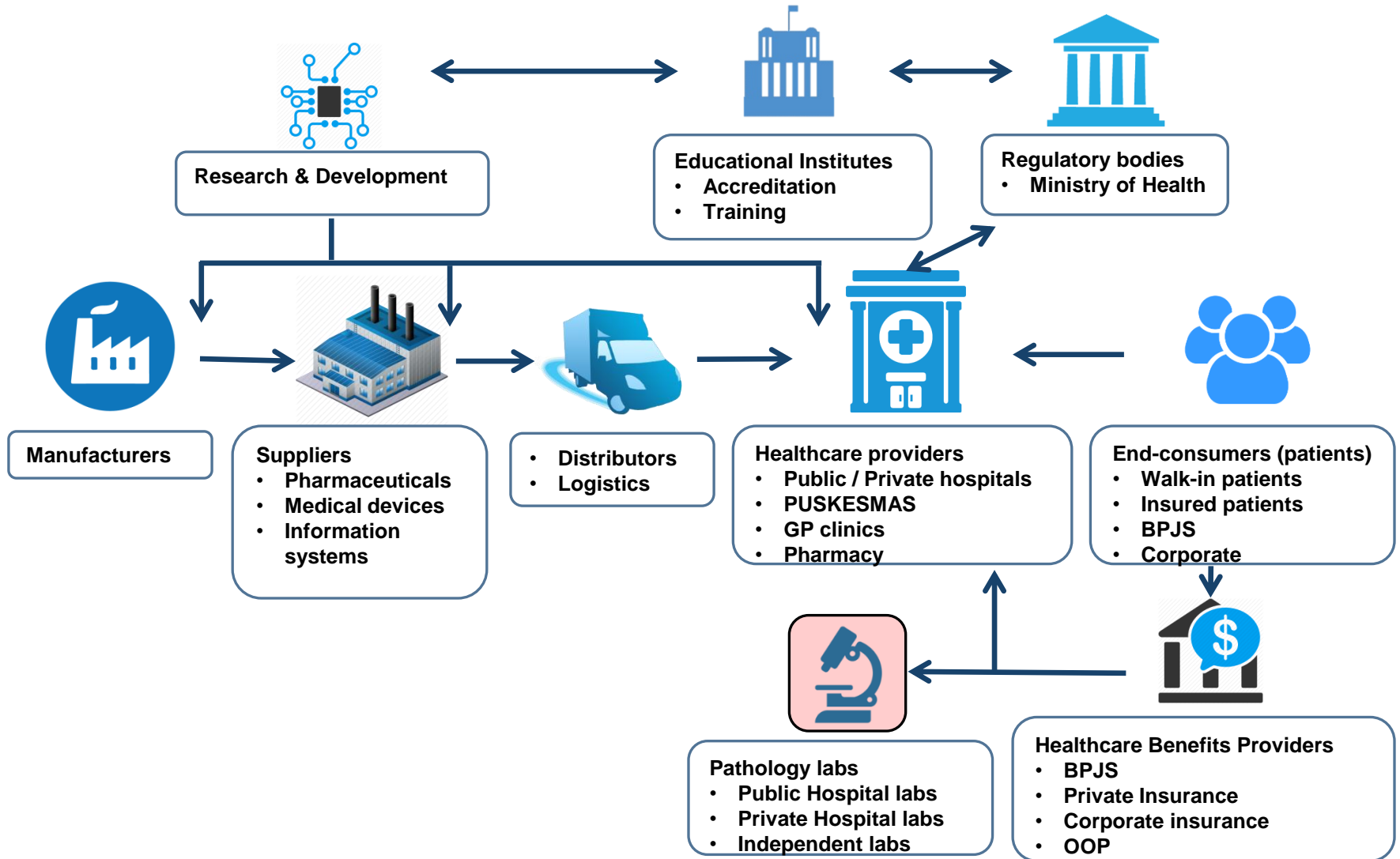
Hierarchy of Hospital Referrals



- Participants are usually allocated or may choose a primary health center from BPJS Health, usually a public health center such as an Indonesian Government-mandated community health clinic, locally known as Puskesmas.
- The first treatment must occur here unless it is an emergency. For emergency services, participants may approach a secondary or tertiary health facility directly.
- Secondary care is by referral from the first level public health care facility, usually to a public hospital or a private hospital which is affiliated to BPJS.

Source: Frost & Sullivan Analysis

Indonesia Healthcare Value Chain



Indonesia Healthcare Value Chain - Continued

Producers/Suppliers	Distributors	Healthcare Providers	Intermediates	Payers
<ul style="list-style-type: none"> Medical device companies Pharmaceutical companies 	<ul style="list-style-type: none"> Wholesalers Dedicated distribution agents 	<ul style="list-style-type: none"> Public and Private Hospitals GPs Independent labs 	<ul style="list-style-type: none"> UHC – BPJS Private insurance TPAs 	<ul style="list-style-type: none"> Individuals Employers

Examples of Stakeholders

Examples of stakeholders in the Indonesian healthcare value chain include:

- Producers/Suppliers:** KALBE, PHILIPS, kimia farma, Roche
- Distributors:** Rajawali Nusindo (RNI Group), ENSEVAL (Passion for Excellence), ZUELLIG PHARMA
- Healthcare Providers:** RS AWAL BROS Hospital Group, RUMAH SAKIT PONDOK INDAH, RUMAH SAKIT UMUM PUSAT FATMAWATI, Siloam Hospitals
- Intermediates:** BPJS Kesehatan (Badan Penyelenggara Jaminan Sosial), Allianz, garda medik, AdMedika (preferred healthcare partner by Telkom Indonesia), PRUDENTIAL (Always Listening. Always Understanding).

Support Infrastructure

Accreditation

ISO 17025:2005 / ISO 9001
National Accreditation KAN

Associations

- Indonesian Medical Association (IDI)
- Indonesia Hospital Association (PD PERSI)

Regulatory



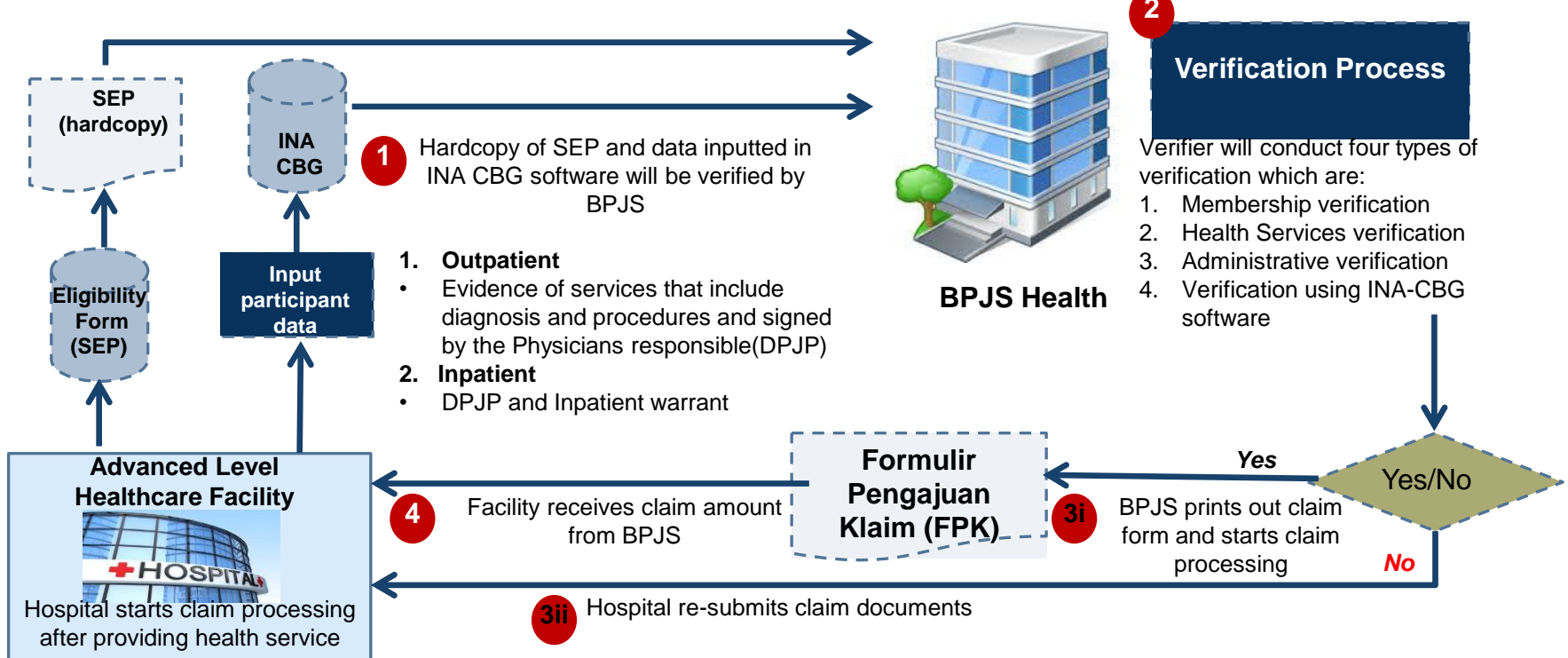
Ministry of Health Indonesia

Information Systems

- Hospital Information Management Systems
- Radiology Information Systems
- Laboratory Information Management System (LIMS)

Hospital reimbursement process under UHC scheme

- Hospital receives claim amount after BPJS conducts 4 steps verification process



- BPJS needs to reimburse hospital claims within 2 weeks of submission of claim request by hospitals. Else, BPJS will be penalized.
- Currently BPJS is trying to increase its efficiency in claim reimbursement process through INA CBG's-SEP (INASIS) system which is an integration of 4 systems namely, SEP, INA-CBGs, SIMRS and claim verification software. This project was piloted last November 2014 in RS Persahabatan.

Note: SIMRS – Sistem Informasi Manajemen Rumah Sakit (Hospital Management Information System)
 SEP – Surat Eligibilitas Peserta (Eligibility Form)
 Source: BPJS and Frost & Sullivan analysis.

Healthcare Key Trends in Indonesia

Key Trends in Healthcare - Indonesia

1

Lifestyle Diseases on the Rise

Urbanization and rise in middle class, with its rather unhealthy lifestyle results in the surge of various lifestyle diseases

2

Steady Implementation of UHC

More private hospitals partner with BPJS

3

Private Healthcare on the Rise

Private hospitals will continue to expand and accept BPJS patients

4

E-catalogue

MNC manufacturers jump onto e-catalogue bandwagon

Key Trends in Healthcare - Indonesia

5

Investing in Aged-care

Aged care private investments have started to come in

6

Indonesian pharmaceutical market is on the brink of a regional manufacturing boom

Government now allows 100% foreign ownership for production of raw materials for medicines

7

Healthcare in Indonesia goes high-tech

Rise of digital healthcare startups

Key Trends in Healthcare Services (continued)

1. Lifestyle Diseases on the Rise

- Over 50% of Indonesians live in urban areas. Urbanization and rise in middle class, has resulted in a steady increase in the prevalence of risk factors such as tobacco use, alcohol, unhealthy diet and physical inactivity which results in the surge of various lifestyle diseases in Indonesia.
- 67% of Indonesian adult males are cigarette smokers and 11.8 million people are estimated to live with diabetes in Indonesia by 2030. These lifestyle diseases will be the main causes of the top deaths in the country. The top 3 deaths in Indonesia are stroke, ischemic heart diseases and diabetes.
- Indonesia could potentially lose \$4.4 trillion from 2012 to 2030 due to the impact of chronic or “non-communicable” diseases (NCDs).
- There is greater need for specialised facilities or multi-speciality hospitals to cater to the growing demand for healthcare services due to this shift in disease pattern.
- The number of specialist hospitals in Indonesia has grown from 333 facilities in 2010 to around 545 in 2015. With many of these specialist hospitals focusing on pediatric and maternity services, there is still a huge need for specialty hospitals for treatment of cardiovascular diseases and oncology.

2. Steady implementation of the UHC

- As of April 2016, there are over 164 million people enrolled (approximately 65%).
- BPJS is seen to continuously making effort in order to make it more attractive for private hospitals to join BPJS by partnering with 4 state owned banks to introduce Supply Chain Financing - a financing program which is specifically given to BPJS partners to help accelerate the acceptance of the payment of claims of health services before payment is due to ensure continuous cash flow.
- After experiencing deficit in the last year, BPJS have increased the premiums for independent participants from 1 April 2016.

Key Trends in Healthcare Services (continued)

3. Private Healthcare on the Rise

- The number of private hospitals is growing at a rate of about 24% as compared to 4% of public hospitals. As the demand for hospital beds, especially outside greater Jakarta area, cannot be addressed by public hospitals alone, the growth is expected to continue to grow faster in Tier 2 & 3 cities as it is more attractive due to their bigger demand-supply gaps and lower land acquisition costs.
- Java is still growing at the fastest rate with 18% growth rate, followed by Sumatra & Bali with a combined growth rate of 16%.
- Top private hospital groups in Indonesia have aggressive expansion especially in the growth areas outside of Java to balance out the distribution across Indonesia. Siloam is currently building four hospitals in Yogyakarta, Labuan Bajo, Bau-Bau and Jember. They are also eyeing 2 acquisition deals in Java and Kalimantan and launching Siloam Express clinics at four locations. Siloam is expected to have 50 hospitals under its name by 2018.
- Along with its expansion, more and more private hospitals are also partnering with BPJS. as of Dec 2014, 652 out of 807 private hospitals have some form of partnerships with BPJS. Many private hospitals have become JKN's best practice like the Awal Bros and Siloam Hospital.

4. MNC manufacturers jump onto e-catalogue bandwagon

- E-Catalogue is another key development that the government is continually improving on since it is a game changer that will affect the procurement of medical devices.
- Through e-catalogue, bad bureaucracies could be eliminated resulting in a more efficient procurement. At the same time, transparencies in pricing helps to create a healthy competition.
- As of March 2015, 53 providers are listed in e-catalogue and the numbers continue to grow. Big companies like Philips, Sysmex, Bbraun, GE have also listed in e-catalogue.

Key Trends in Healthcare Services (continued)

5. Investing in Aged-care

- As the elderly population continues to expand, with around 10 percent living in Greater Jakarta, there have been a number of major developers who are aggressively operating in the field of healthcare services for the aged.
- Two examples are the D Khayangan Senior Living, which is a joint venture between Japanese service company and Jababeka developer. Its second phase is expected to be ready by 2016.
- Next, the Rukun Senior Living, JV between Netherland company Inis Excellent and Inis Indonesia.

6. The Indonesian pharmaceutical market is on the brink of a regional manufacturing boom

- The Indonesian pharma market is set for huge growth. With a population of 250 mn, Indonesia's pharmaceutical market is estimated at \$5 billion in 2015.
- Consumption of prescription generic drugs will see a sharp increase over the coming three to five years especially due to JKN.
- The investment coordinating board now allows 100% foreign ownership for production of raw materials for medicines. Therefore it is anticipated that overseas companies will soon be flocking into the region with foreign investments that could lead to innovative partnerships with domestic manufacturers in the long term. Investment from the local government will also help boost drug development.
- For example, Kalbe Farma is currently constructing a biopharmacy raw material manufacturing plant in Cikarang, West Java, scheduled to commercially commence operations in late 2017 or 2018. State-controlled pharmaceutical company Kimia Farma also announced recently that it would start constructing a 100 billion IDR raw materials plant in Cikarang, West Java, in 2016.

Key Trends in Healthcare Services (continued)

7. Healthcare in Indonesia goes high-tech

Digital Healthcare

#Internet #Practo #Healthcare

Online healthcare startup Practo forays into Indonesia

Based in Bangalore, Practo has a presence in India, Philippines and Singapore and has a team of 1,500 employees.

Indonesia's Lippo group ventures into online healthcare services with Health1 app



Konsula wants to lead Indonesia's healthcare digitisation

By Masyitha Baziad | Jan 12, 2016

- Committed first to domestic market, 800 doctors in its directory
- To launch cloud solution for doctors to manage online booking

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Geeky doctors use tech to help people in Indonesia get their prescriptions

Medical Devices

vRad and RSU Bunda Jakarta Partner to Bring "Anytime-Anywhere" Subspecialty Radiology Services to Indonesia

Philips announces Mobile Obstetrics Monitoring service in Indonesia, investment tieup with EDB Singapore

Genetic Testing

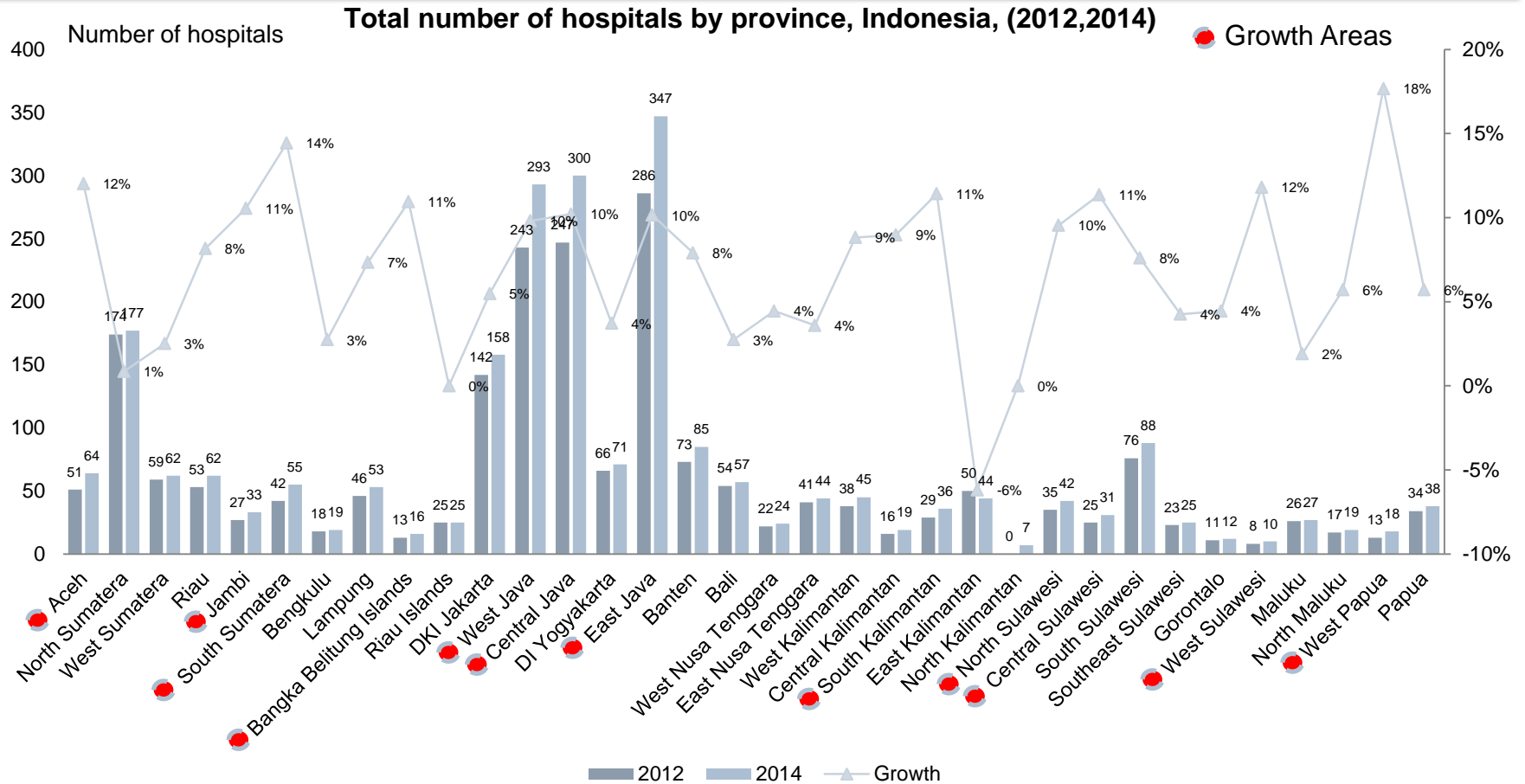
DNA-testing startup gets funding injection from Lippo-backed VC, enters Indonesia

- By the end of 2015, areas like health tech and diagnostics witness a faster pace of growth. Currently there is a lack of technological intervention to improve access to information for making better healthcare choices.
- This is where all this startups fits in and fills the gap by providing access and enabling digitized healthcare by tapping the rapidly growing internet user base and smartphone users in Indonesia.
- Among some of the popular examples are Konsula, Practo, Lippo group's Health1, ProSehat and Prenetics.

Indonesia Healthcare Challenges

Challenges - Infrastructure

Key Takeaway: Regional disparities in infrastructure remain a big challenge where over 50% of hospitals are concentrated in Java region



Note: Growth areas are provinces with equal or more than 10% growth rate.

Source: Indonesia Health Profile 2012 & 2014 – Ministry of Health, Frost & Sullivan Analysis

Challenges - Infrastructure

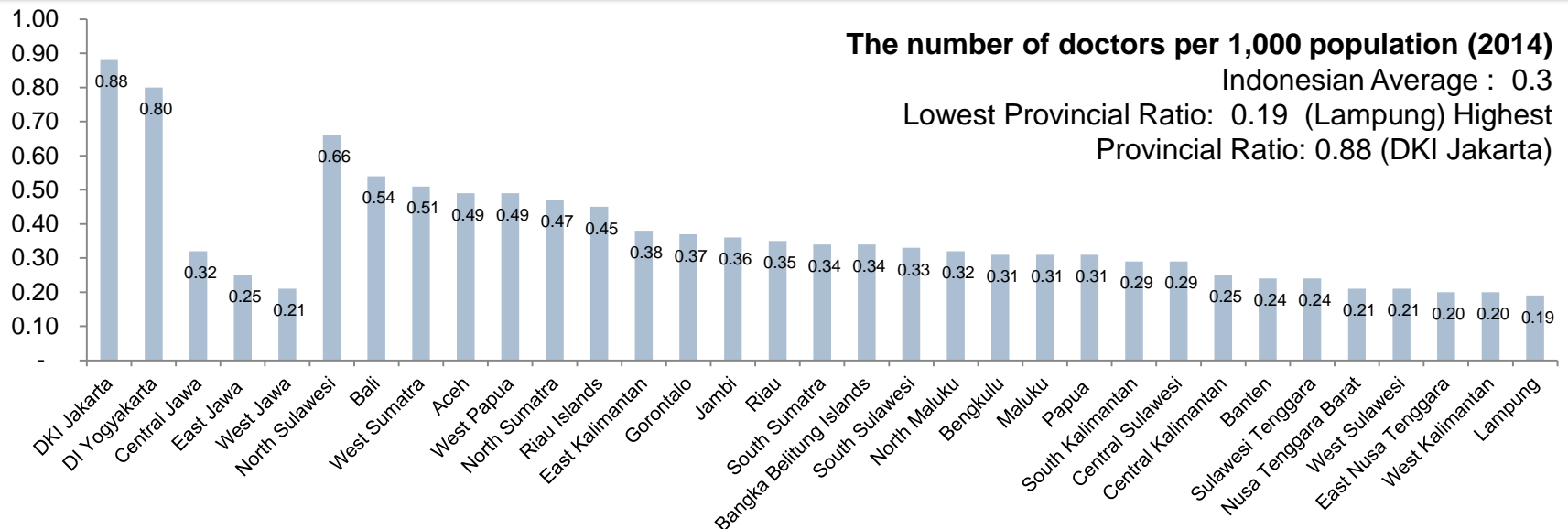
	2014	2019 (Expected)	Gap
Number of hospital beds	284,892	319,200	34,308 [Additional beds]
Hospital Bed ratio [beds per 10,000 population]	11	12	49 OECD Average

- Low number of hospital beds per 1000 population is an indicator that there is a strong demand for additional hospital beds reflecting the growth potential for healthcare infrastructure in Indonesia
- The demand for hospital beds, especially outside greater Jakarta area, cannot be addressed by public hospitals alone. Accordingly, private hospitals will likely need to expand beyond the key cities to capture these new markets. More foreign as well as local investments are likely to be made in Indonesia, not only from the traditional healthcare service providers (hospitals), but also from unconventional industries wanting to diversify and partner with healthcare players (such as technology companies, real estate companies or conglomerates).
- Indonesia's healthcare landscape is undergoing major developments. Local Groups like Siloam and Omni have aggressive expansion plans of building more hospitals especially outside Java.

Source: Frost & Sullivan Analysis

Challenges – Human Resources

Key Takeaway: Quantity and quality of human resources are both big challenges in Indonesia's healthcare sector



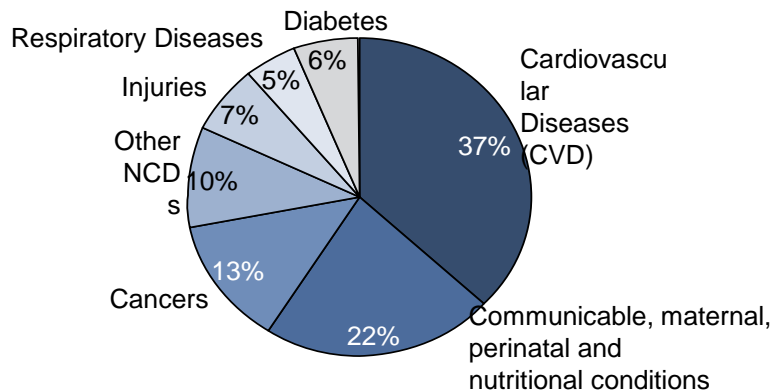
- The number of doctors per 1,000 population in Indonesia was 0.3 in 2012, which is significantly lower than Thailand (0.7), Malaysia (1.3) and Singapore (2.0).
- The number of nurses per 1,000 population in the country (1.4) is also significantly lower than Thailand (2.7), Malaysia (3.8) and Singapore (6.7).
- The already scarce doctors, which are way below the global (1.4) and ASEAN (1.0) averages, will be put under pressure by the burden of the increasing number of JKN patients.
- Besides shortages in quantity, there is also an uneven distribution of healthcare personnel as doctors and nurses prefer to practice in major cities where the potential of earning and career development is better compared to rural areas.
- AEC is likely to help mitigate the shortage of doctors in Indonesia as it will improve mobility of doctors from other ASEAN countries.

Source: Bappenas, Frost & Sullivan Analysis

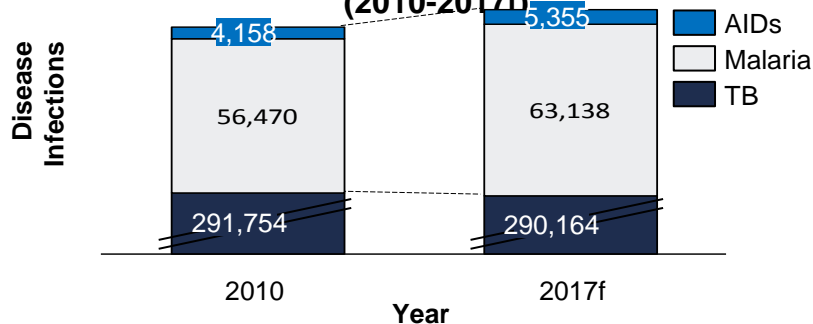
Challenges - Epidemiological Transition

Key Takeaway: Indonesia is undergoing an epidemiological transition with the burden shifting to non-communicable diseases. A high prevalence of cardiovascular, cancer and diabetes as well as communicable diseases such as malaria and TB will drive the demand for healthcare services

Disease mortality (% including all ages) 2014



Number of communicable disease infections in Indonesia (2010-2017f)



- High consumption of tobacco has led to an increase in respiratory diseases. In 2012, more than 60% of men aged 15 years and above were reported as cigarette smokers.
- Increased sedentary lifestyle and high fat & carbohydrate diet is leading to a rise in cardiovascular and diabetes diseases
- Indonesia is still at a very high risk for food infectious diseases and occasional dengue fever outbreaks
- According to WHO, in 2012, Indonesia had the 5th highest number of TB deaths in ASEAN
- The government aims to fully eradicate malaria by year 2030.
- The pathology market is estimated to grow overall for NCD related tests, with liver function and cholesterol tests being top clinical chemistry tests
- Indonesia's ageing community will require more diagnostic testing as they are very susceptible to both communicable and non-communicable diseases
- With high incidences for Malaria and Tuberculosis, rapid screening for mass population will be required.

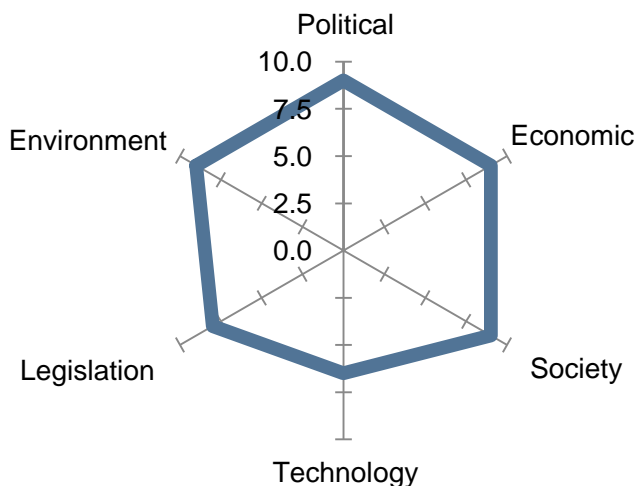
Source: WHO, Frost & Sullivan Analysis

Indonesia Healthcare Attractiveness

PESTLE Analysis

Key Takeaway: Indonesia has recovered from the global recession to experience greater economic prosperity and affluence, as it is largely dependent on domestic consumption rather than exports.

Total Healthcare Market: PESTLE Analysis, Indonesia, 2015



Rating indicates level of impact of PEST factors on growth. Scale = 0 to 10, where 0 is low impact & 10 is high impact.

Political: Indonesia institutionalised certain electoral processes that are widely considered as free, fair, and competitive.

Economic: With confidence levels (amongst foreign investors) being the third-highest globally, Indonesia is set to become the favoured destination for investment.

Society: The low-mid income population is struggling to join the progressive Indonesian economy.

Technology: Infrastructure and innovation is picking up with the growing trend of foreign investment.

Legislation: The government has increased foreign direct investment (FDI) and created special economic zones to attract investment.

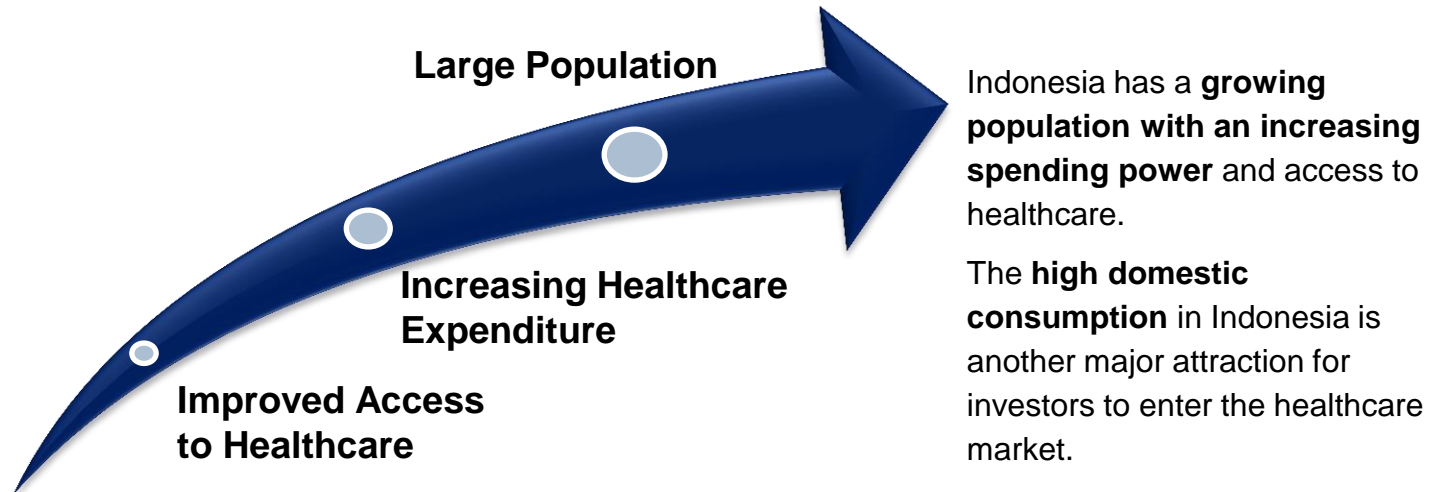
Environment: Indonesia is investor-ready for the *CMO, pharmaceutical, and IVD sectors. The healthcare IT and **POCT markets are still at a nascent stage.

Healthcare expenditure in Indonesia is expected to expand at a CAGR of 18.1% from 2013 to 2019, driven by a combination of demographic and non-demographic factors that create opportunities for participants in private healthcare sectors.

*CMO—Contract Manufacturing Organisation; **POCT—Point-of-care Technology

Source: Frost & Sullivan

What are the Market Attractions in Indonesia?



- Indonesia's middle class, comprising households with annual income between \$5k and \$10k, is estimated to have doubled from 2006 to 2010, indicating the growing preference of people towards availing of affordable and premium healthcare services.
- Healthcare expenditure as a percentage of the GDP has been low in Indonesia. However, the rise in government and private expenditure on citizen's health shows promising prospects to the overall healthcare space in the country in the near future.
- Investments earlier limited to only Tier I cities can now be undertaken in any part of the country.
- Foreign policies are expected to become more friendly during the forecast period.

If Indonesia can address the range of constraints on growth now, then it holds the key to a successful platform for productive and resilient economy over the next 5-7 years.

Source: World Bank; Frost & Sullivan

Market Engineering Measurements

Total Healthcare Market: Market Engineering Measurements, Indonesia, 2013

Market Overview

















Measurement Name	Measurement	Trend
Population (2013)	249 Million	●
Population Growth (2013–2023)	1.0%	●
Life Expectancy	70 Years	▲
Urban Population	51.0%	▲
Real GDP	2.3 Million	▲
GDP (healthcare expenditure as % of its GDP, 2013)	3.3%	▲
Total Healthcare Expenditure (2013)	\$30.00 Billion	▲
Public Expenditure on Health (% of GDP)	40.0%	▲
Private Expenditure on Health	60.0%	▲
FDI (Level of Investor Confidence)*	76.0%	▲

Trend	Decreasing	Stable	Increasing
	▼	●	▲

*The level of confidence among Indonesian investors in 2014 is higher than the global average at 56%. The Asian region's average is 66%.




Source: EXIM Bank, World Bank; BPS Indonesia; IMF; Jakarta Post; World Bank; Frost & Sullivan

Market Engineering Measurements—Segments to Watch Out

Market Name	Market Stage	Revenue (\$ Million) 2013	Revenue (\$ Million) 2019	CAGR (%) (2013–2019)	Trend (2013–2019)
Private Hospital Market*		7,300.0	11,700.0	8.1	
Total Pharmaceutical Market		4,000.0	8,300.0	13.1	
Prescription Market		2,400.0	5,000.0	13.0	
OTC Medicines Market		1,600.0	3,300.0	12.7	
Total Medical Technology Market		593.8	1,464.6	16.2	
Medical Imaging Market		205.3	558.0	18.2	
Consumables Market		136.3	280.2	12.8	
Radiation Devices Market		74.2	187.2	16.6	
Total IVD Market		38.6	75.8	11.8	

*It is difficult to estimate the total hospital market, as data on public hospital share or budget allocated is inconclusive.

Stage:  Growing  Potential  Nascent

Trend: Decreasing  Stable  Increasing 

Source: Ministry of Health (MOH) Indonesia; Frost & Sullivan

SWOT Analysis of the Indonesian Healthcare Market

Strengths

- Significant market growth potential, with expanding middle class, growing and ageing population, and implementation of universal healthcare in 2014 (JKN).
- Sizeable and strong generic drug market, largely owing to the low-income population.
- Well-established local industry.

Weaknesses

- Regulatory system biased in favour of local manufacturers and service providers.
- Poor budgeting to promote healthcare IT.
- Medical devices industry dependent on imports.
- Government protecting the rights of domestic workers and planning strict vigil on expatriate hiring (ahead of the ASEAN summit).

Indonesia's large domestic demand base and exposure to commodities are two important factors that are expected to drive growth in the medium to long terms.

Opportunities

- High consumption due to greater purchasing power in the domestic market will create opportunities for multinational companies (MNCs) to expand their market, particularly in the private insurance sector.
- Goods import market: Consumers have a good perception of imports from the US, the European Union, and Japan.
- Significant revenue opportunities for multinational drug makers. Market for low-cost drugs to increase with the implementation of JKN and online pricing mechanisms (E-Catalogue).
- Opportunity for expansion of private hospitals to address infrastructure gap; more hospitals would mean a greater demand for medical devices.

Threats

- Use of self-medication/OTC medicines: Consumers tend to use self-management methods as a first step and may delay prescription medication.
- Existence of a significant counterfeit drugs sector.
- Poor intellectual property protection limiting foreign investment.
- Expected reduction of tariffs on drugs under the ASEAN harmonisation programme is seen as a threat for domestic companies.

Source: EIU, Frost & Sullivan

Drivers and Restraints

Market Drivers

Total Healthcare Market: Key Market Drivers, Indonesia, 2015–2019

Drivers	1–2 Years	3–4 Years	5–6 Years
JKN wave likely to increase consumption in the healthcare market	H	H	H
Rising incomes to be the primary driver for growing healthcare demand	H	H	H
JKN implementation could potentially increase patient volumes at private hospitals	H	H	M
Increase in patient volume could lead to demand for generic prescription drugs	H	H	M

Impact Ratings: H = High, M = Medium, L = Low

Source: Frost & Sullivan

Drivers—Explained

JKN Wave Likely to Increase Consumption in the Healthcare Market

Currently, Indonesia is drawing the maximum attention from industries globally. JKN is the immediate reason while the ASEAN is the long-term attraction. In spite of the initial hurdles in setting up manufacturing units in Indonesia, companies are still looking at the country as a major investment destination as the opportunity is in every healthcare sector, that is, hospitals, medical devices, pharmaceuticals, and diagnostics.

Rising Incomes to be the Primary Driver for Growing Healthcare Demand

Indonesia's growing economy would shift it from a low-income country to a middle-income one. While rising incomes will be seen as the primary driver for the growing healthcare demand, the implementation of the JKN is expected to work as a catalyst and further drive the private sector investment. It can be seen as an enabler for structural growth in Indonesia.

JKN Could Increase Patient Volumes at Private Hospitals

JKN could drive the demand for inpatient and outpatient services at public hospitals and also among the participating private hospitals, as expensive bills for hospitalisation and specialist expenses can now be covered under the scheme.

Increase in Patient Volume Could Lead to Demand for Generic Prescription Drugs

From 2014 onwards, JKN has increased the demand for pharmaceutical products, as most of the consultation will be reimbursed. This may lead to a significant demand for generic prescription drugs. An estimated 13% growth is expected during the next five years.

Market Restraints

Total Healthcare Market: Key Market Drivers, Indonesia, 2015–2019

Restraints	1–2 Years	3–4 Years	5–6 Years
High cases of malpractices and corruption demotivate foreign investors	H	M	M
Lack of common protocols or standards slow down the manufacturing sector	H	M	L
Connected health and healthcare IT market is struggling	M	M	M
Lack of access to healthcare leads to high mortality of mother and child	M	M	L

Impact Ratings: H = High, M = Medium, L = Low

Source: Frost & Sullivan

Restraints—Explained

High Cases of Malpractices and Corruption Demotivate Foreign Investors

As per the annual perception index of Berlin-based Transparency International, the country has a high rate of corruption cases, which holds back some investors. Unless the perception is changed and the government takes firm action to curb corruption, it will be difficult to curb malpractices in the healthcare market.

Lack of Common Protocols or Standards Slow Down the Manufacturing Sector

Indonesia's physical infrastructure is considered sub-standard. The archipelagic nature of the country makes it difficult to keep the national infrastructure together. Despite an ambitious infrastructure revitalisation plan, the country is struggling as compared to its ASEAN peers.

Connected Health and Healthcare IT Market is Struggling

With a handful of IT companies in the country, the healthcare market is closely tracking the potential and growth of this sector going forward. Due to high fragmentation and lack of proper regulations, investments in healthcare IT have been effected.

Lack of Access to Healthcare Leads to High Mortality of Mother and Child

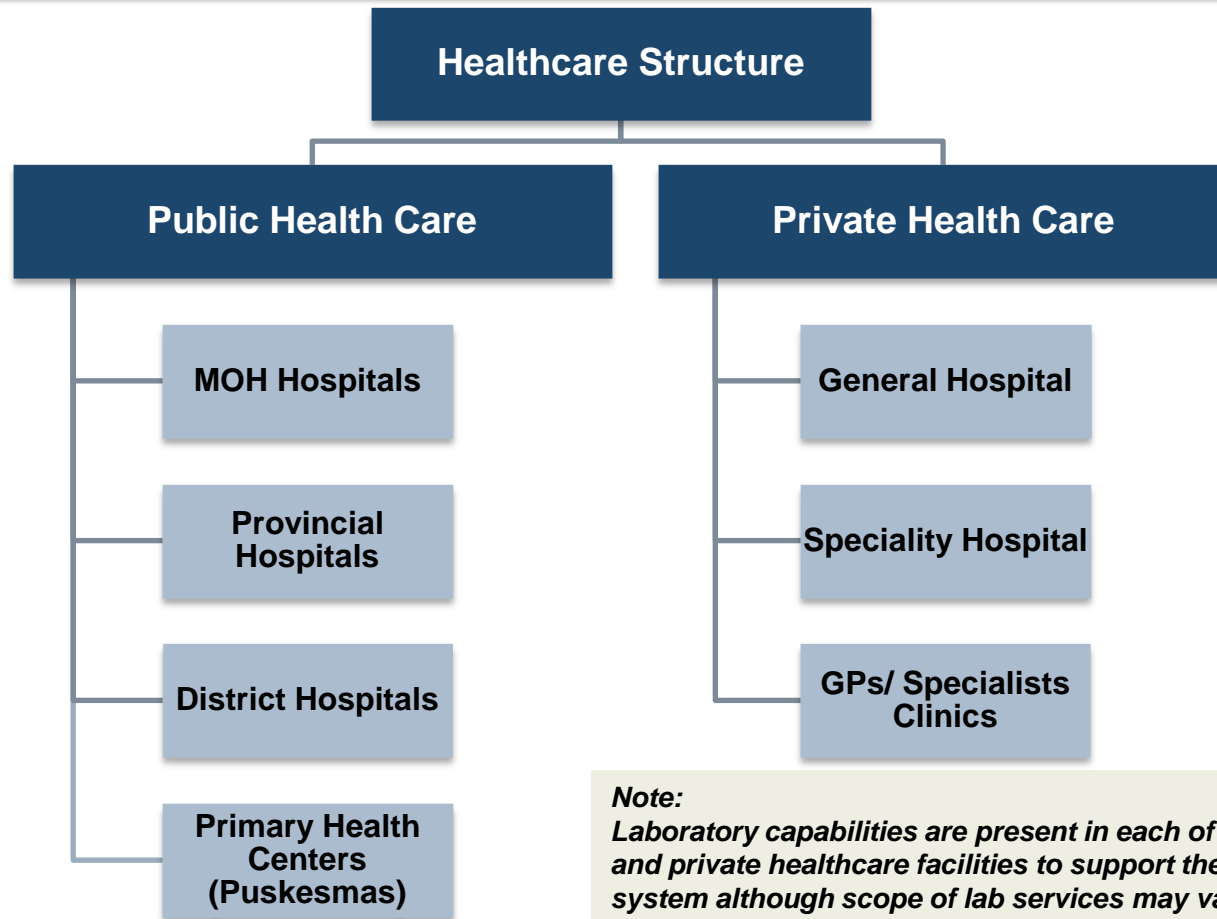
Due to limited access to healthcare services and skilled doctors or midwives, Indonesia is still struggling with high mortality rates of mother and child.

Source: The Jakarta Post; Frost & Sullivan

Private Hospital Market in Indonesia

Public and Private Healthcare Delivery System

Key Takeaway: Public healthcare delivery system is decentralized and organized at multiple levels namely provincial, district and sub-districts



Note:
Laboratory capabilities are present in each of the public and private healthcare facilities to support the overall HC system although scope of lab services may vary across hospitals from basic to specialized testing.

Public and Private Healthcare Delivery System - Continue

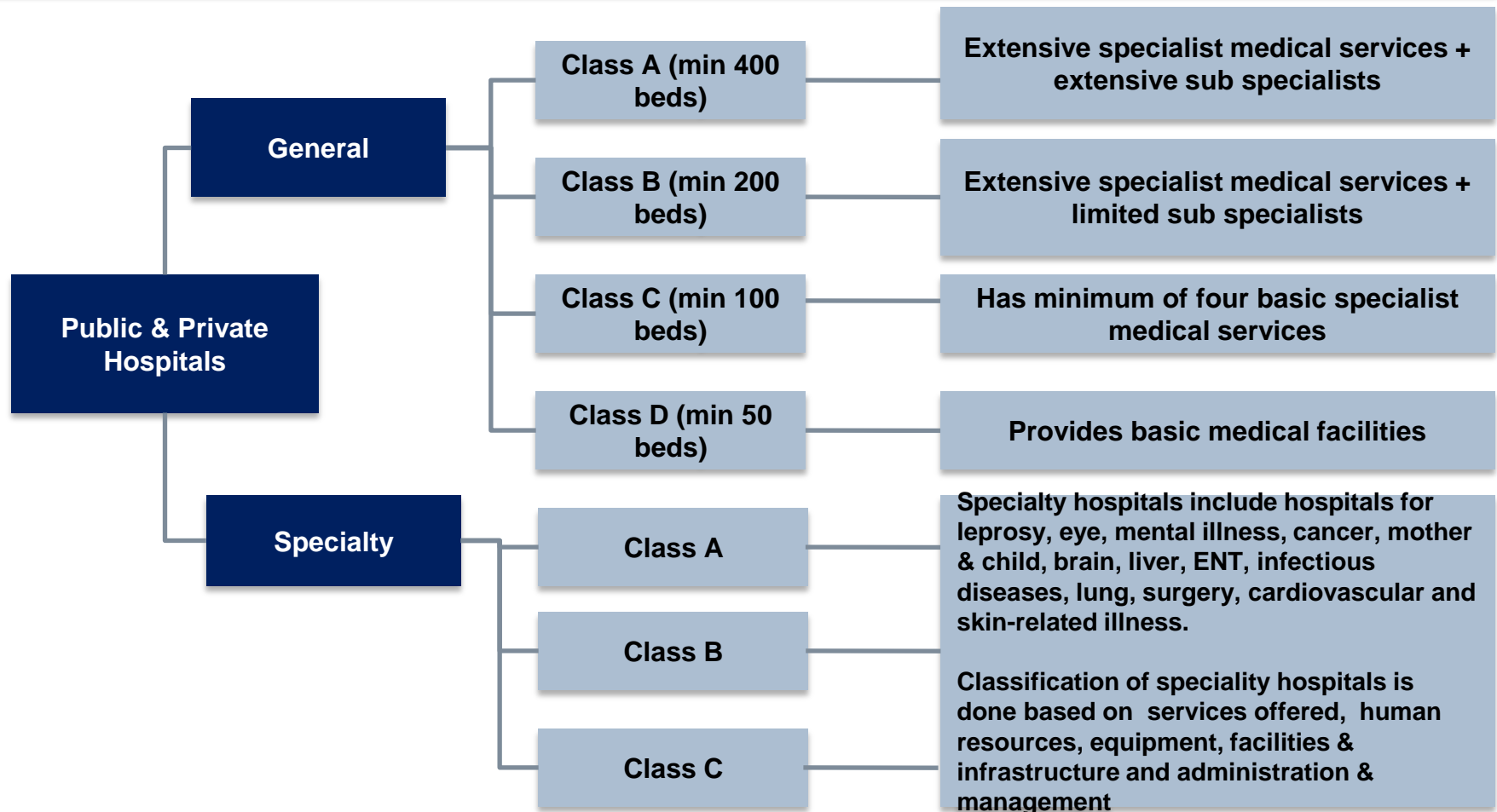
Key Takeaway: The Indonesian health system is largely based on an extensive network of public sector facilities; the public and private hospitals split include 70:30 on average

Healthcare facility type	Number (2014)	Funding type	Administrator	Typical location	Coverage/ population	Typical services
Government Healthcare centers (PUSKESMAS)	9,731	Central and provincial government	Provincial government	Urban & rural	Caters largely to lower-income groups.	Primary outpatient services, with 35% inpatient facilities.
GP clinics	~ 19,500	Private	Private	Urban & rural	Caters largely to upper and middle-income groups.	Basic primary care outpatient services.
Private hospitals	807	Private	Private	Urban	Caters largely to upper and middle-income groups	Services varies between hospitals ranging from general, specialty to sub-specialty services
Public hospitals	1,599	Central and provincial government	Central and provincial government	Urban & rural	Caters largely to lower and middle-income groups	Services varies between hospitals ranging from general, specialty to sub-specialty services

Source: Indonesia Ministry of Health, Indonesia Health Profile 2014, Frost & Sullivan Analysis

Indonesian Hospital Classification

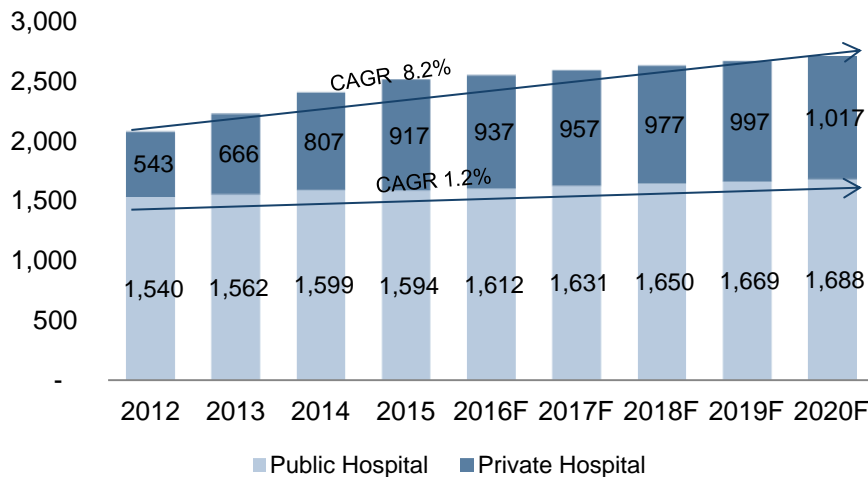
Key Takeaway: The largest number of public hospitals is attributed to Class C which generally serve secondary and tertiary care for larger districts



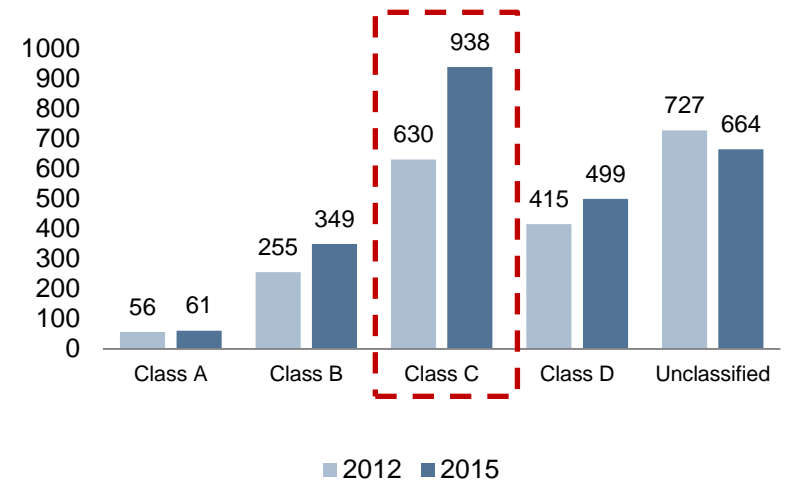
Total Public and Private Hospitals with Classification

Key Takeaway: Private hospitals is expected to be the faster growing segment compared to public hospitals and create opportunity for investors

Total Number of Public and Private Hospitals, Indonesia, 2012-2020



Total Number of Hospitals by Class, Indonesia, (2012,2015)



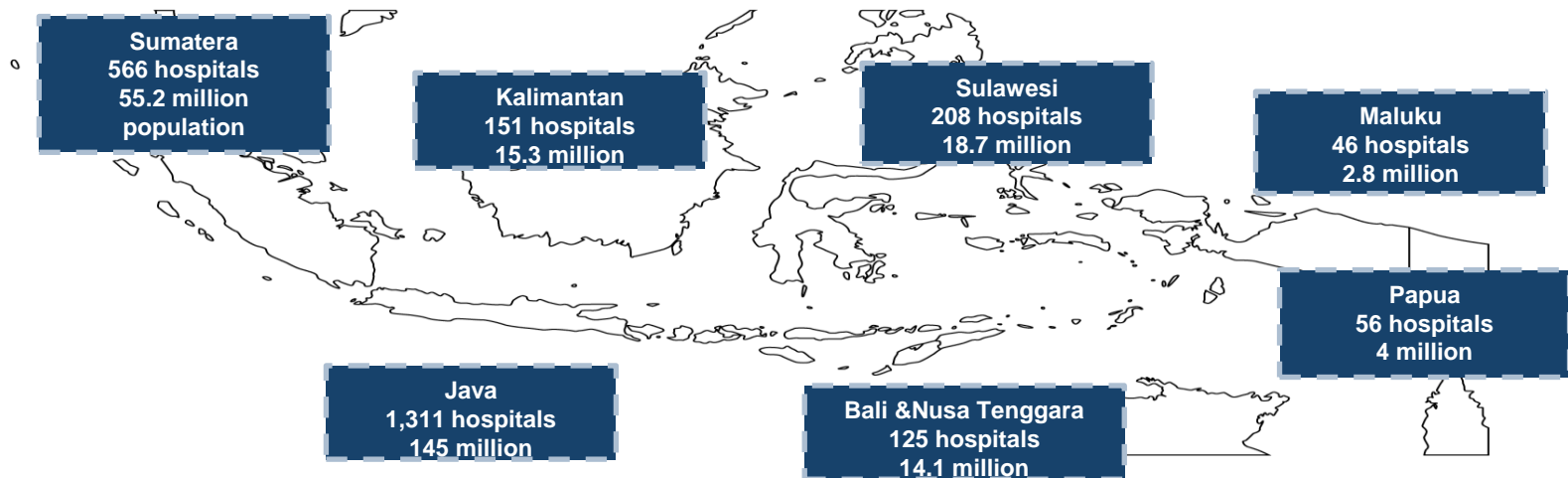
- Indonesia's healthcare system is currently still unable to cater to its more than 250 million citizens.
- With the rollout of JKN, private sector have been seen to largely contribute in addressing the gaps in infrastructure in Indonesia.
- The largest number of government hospitals is attributed to the Class C, which generally serve secondary and tertiary care for larger districts.
- Class A hospitals currently providing top class national referral care are situated in major cities of Jakarta, Denpasar, Medan, Yogyakarta, Palembang, Surabaya, Semarang, Bandung and Makassar.

Source: Indonesia Ministry of Health, Indonesia Health Profile 2014 Frost & Sullivan Analysis

Major Hospital Clusters Across Indonesia

Key Takeaway: Over 50% of the hospitals are clustered in Java region as about 60% of the population resides in Java

Regional Healthcare Infrastructure, Indonesia, 2015

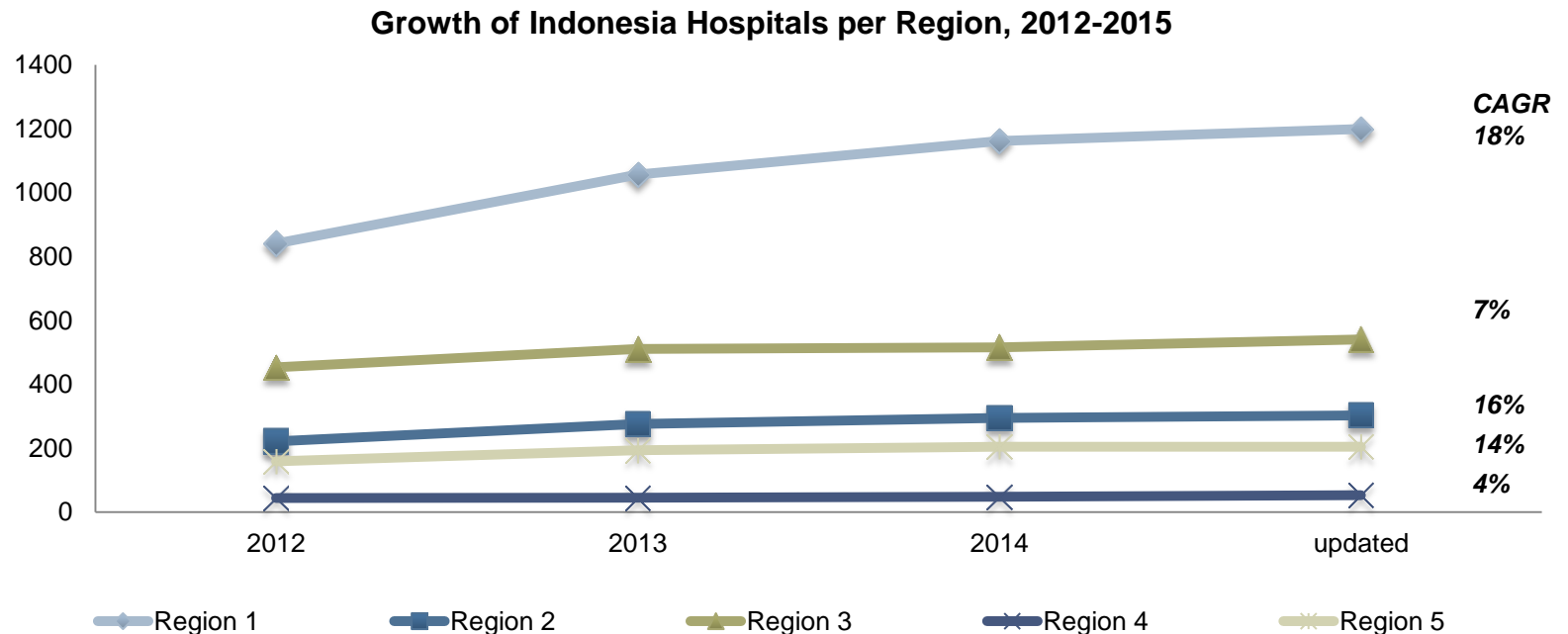


- Indonesia faces shortages in infrastructure and human resources. Over 50% of the hospitals in Indonesia & health professionals are located in Java island. The shortage is more prominent in rural areas.
- Based on rising demand for better healthcare services due to UHC, private hospital operators are gradually expanding to other developing cities/provinces such as Kalimantan and Sulawesi to ease pressure on the public system.
- Second tier cities such as Batam, Palembang, Balikpapan with lower hospital bed ratios provide good opportunities for investments due to bigger supply-demand gaps and lower land acquisition costs. These areas are also experiencing high economic growth through investments in fast-growing sectors such as plantation and mining.
- Major multi-specialty hospital groups include the Siloam Hospital Group, Mitra Keluarga Group, Awal Bros Group, Sari Asih Group, and Ramsay Sime Darby Health Care.

Source: MOH, Frost & Sullivan Analysis

Hospitals by Region

Key Takeaway: Growth of hospitals is still expected to be the highest in Java despite having over 50% of healthcare infrastructure in Indonesia



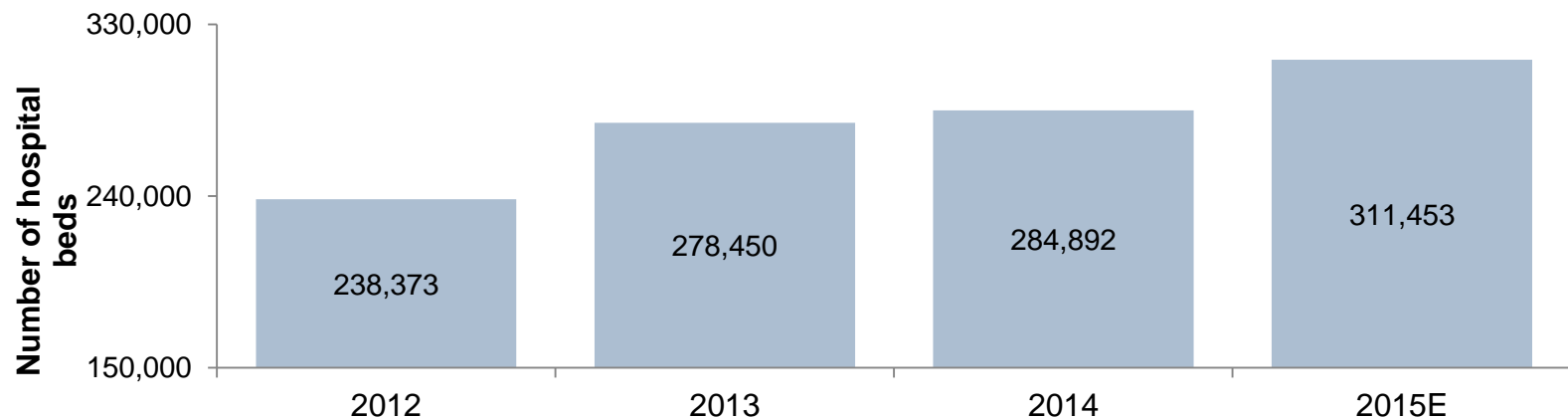
- Region 1 – Java
- Region 3: Aceh, North Sumatera, Jambi, Bengkulu, Riau Islands, West Kalimantan, North Sulawesi, Southeast Sulawesi, South Sulawesi, Gorontalo, West Sulawesi
- Region 2 – West Sumatera Riau, South Sumatera, Lampung, Bali, West Nusa Tenggara
- Region 4: Central Kalimantan, South Kalimantan
- Region 5: Bangka Belitung Islands, East Nusa Tenggara, East Kalimantan, Maluku, North Maluku, West Papua, Papua

Source: MOH

Indonesia: Total Hospital Beds

Key Takeaway: As with other healthcare resources, a large portion of hospital beds are concentrated in Java region with 154,087 hospital beds as of 2014

Total no. of Beds and Hospital Density (no. of Beds per 1000 Population)



- In 2014, Indonesia has 1.13 hospital beds per 1,000 population. Indonesia still lags behind in terms of the number of hospital beds per 1,000 population compared to countries in the ASEAN region.
- Singapore, Thailand, Vietnam and Malaysia has about 2.0 hospital beds per 1,000 population.
- Private hospitals accounts for about 40% of the total number of hospital beds in Indonesia.

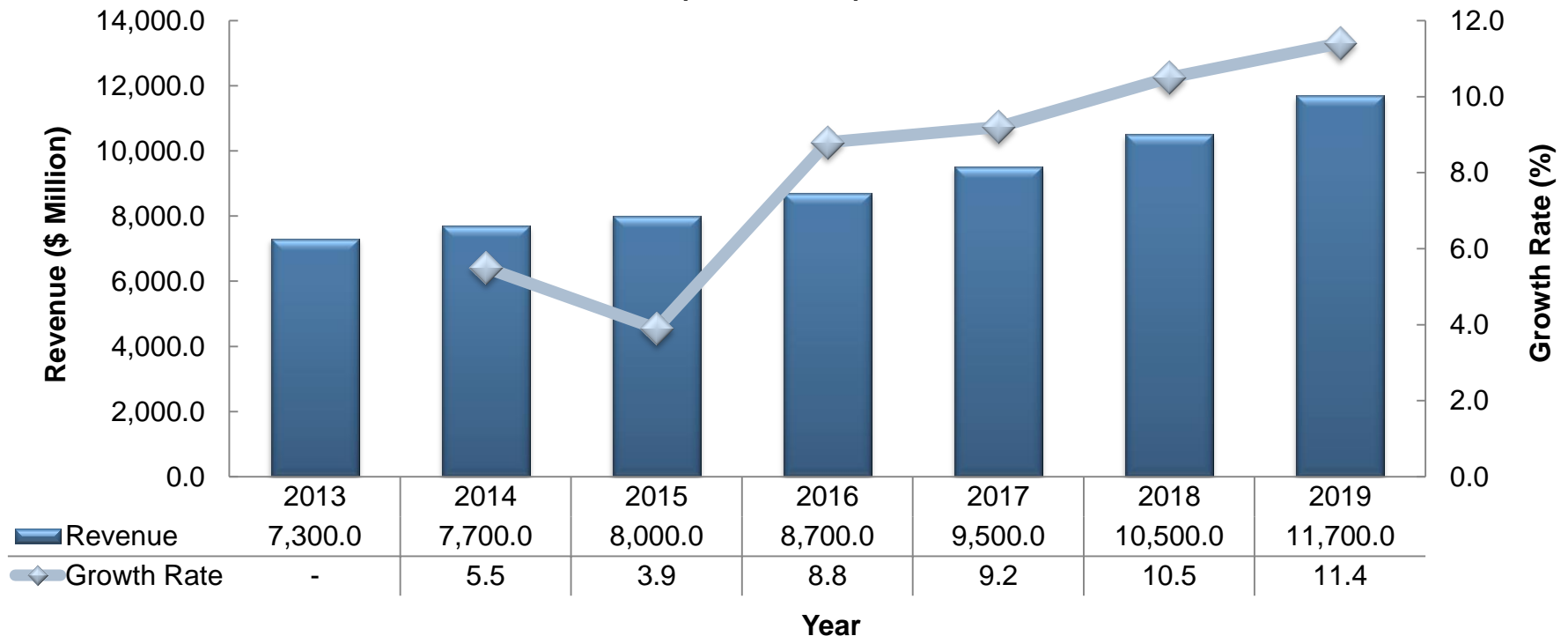
Source: MOH, Frost & Sullivan

Revenue Forecast—Private Hospital Market

Key Takeaway: Local groups such as Siloam and Omni are planning to build more quality hospitals to prevent Indonesians from travelling out of the country to seek treatment.

Private Hospital Market: Revenue Forecast, Indonesia, 2013–2019

CAGR (2013–2019) = 8.1%



Note: All figures are rounded. The base year is 2013. Source: Frost & Sullivan

Revenue Forecast Discussion

The Forecast

- Patient safety and quality of services matching global standards are still an issue in Indonesia. There will be a growing demand for nationally and globally accredited hospitals during the next five years.
- More than 35,000 new beds are likely to be added in Indonesia by 2020. Moreover, due to the entry of new participants into the private hospital market and expansion of existing ones, the country will most likely achieve 1.5 beds per 1,000 person by 2019.
- Assuming the Organisation for Economic Cooperation and Development's (OECD's) global average of 3.0 hospital beds per 1,000 patients remains valid, Indonesia's bed shortage is expected to continue till 2030. Therefore, the private hospital market looks promising for investors over the next 5–10 years.
- Opportunities for private healthcare services also exist, as the JKN is expected to take up capacity in public hospitals and Indonesians usually prefer internationally accredited hospitals than the local ones. This perception of value stems from educated Indonesian patients being more concerned with healthcare quality rather than cost of treatment.

The Impact

The rollout of the JKN programme will act as a catalyst for Indonesia's healthcare market. Increased reports of chronic diseases, demand for quality healthcare, and rise in the number of hospitals are expected to support growth of the healthcare space in Indonesia.

Source: Ministry of Health Indonesia; Frost & Sullivan

Private Hospital Market Competitors in Indonesia

Key Takeaway: The private hospital market is dominated by 5 major groups which are spread across different states and considered fast growing. Besides these, Ramsay Sime Darby, Omni, Pondok Indah, and Mayapada hospitals are amongst the top 10 private participants.



- There are a total of 73 major private hospitals in Indonesia operated by top 10 private participants. Of these, 57% of the hospitals are located in Greater Jakarta area (42 hospitals) and there is a need for more private hospitals in areas such as Surabaya, Kalimantan, and Bali.
- At present, the 73 hospitals offer 11,000 beds to patients seeking private treatment. Patient volumes are expected to increase drastically by the time JKN is implemented *in toto*. Long waiting queues, quality of service, and need for specialist doctors will drive OOP patients to these private hospitals by 2019.

Source: Frost & Sullivan

Private Hospital Market Competitors in Indonesia (continued)

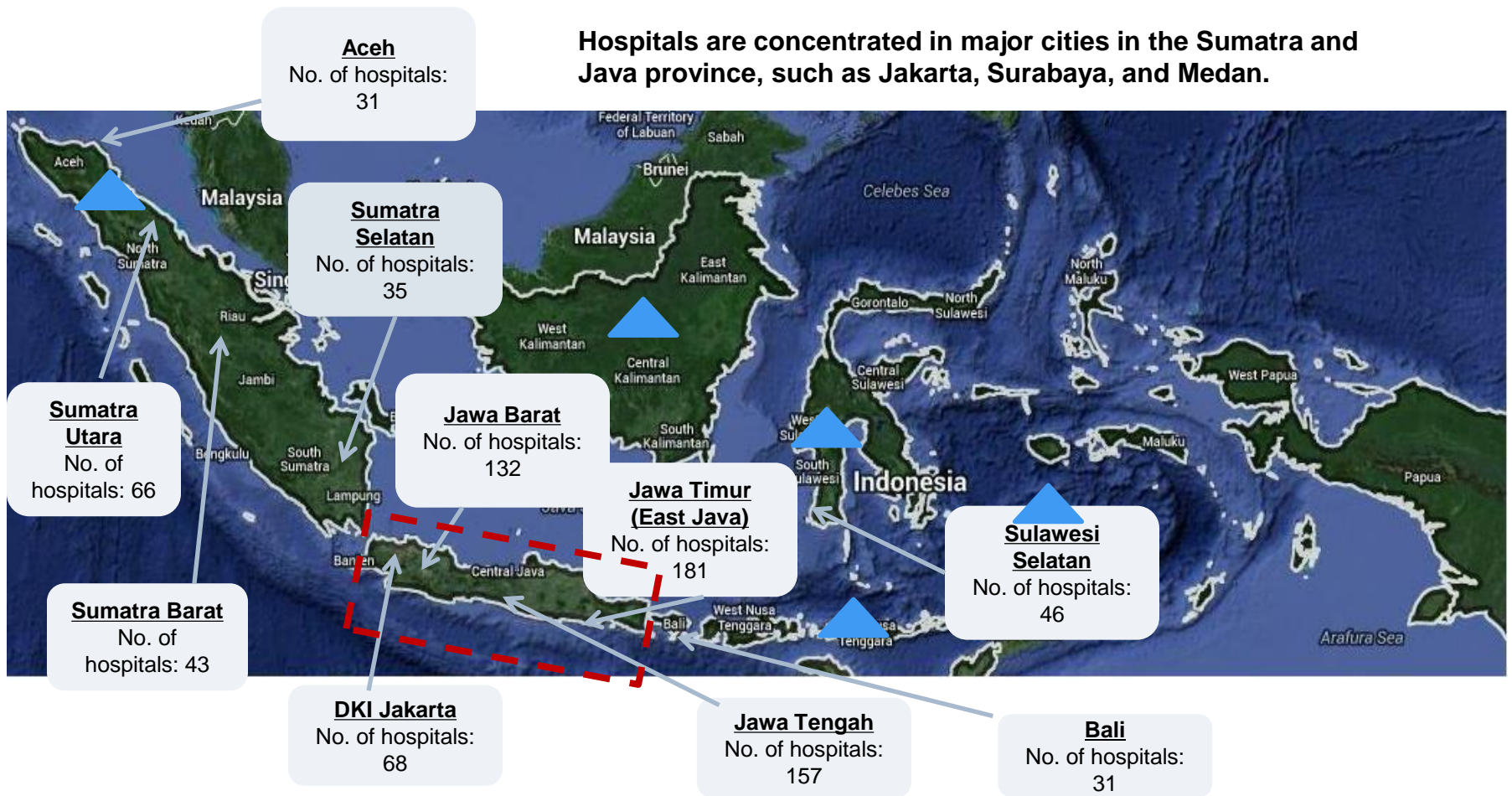
Private Hospital Groups, 2013	No. of Hospitals	No. of Hospitals in Greater Jakarta Area	No. of Hospitals Outside Greater Jakarta Area	No. of Beds	Speciality
Siloam Hospital Group	18	6	12	4,500+	Multi-speciality
Hermina Hospital Group	18	10	8	820+	Obstetrics and Gynecology
Rumah Sakit Mitra (Mitra Group)	11	7	4	1,200+	Multi-speciality
Awal Bros Hospital Group	8	4	4	1,000+	Multi-speciality
Sari Asih Group	7	6	1	900+	Multi-speciality
Ramsay Sime Darby Healthcare	3	2	1	650+	Multi-speciality
Eka Hospital Group	2	1	1	480+	Multi-speciality

Source: Ministry of Health Indonesia; Frost & Sullivan

New Market Opportunity—Private Hospital Market

Many of the hospitals are still concentrated among urban centres in the regions identified below.

Hospitals are concentrated in major cities in the Sumatra and Java province, such as Jakarta, Surabaya, and Medan.



 Opportunity

Source: Ministry of Health Indonesia; Frost & Sullivan

Regulations and Implications for Non-Indonesian Stakeholders

Planning Entry into the Private Hospital Market

Key Takeaway: Non-Indonesian stakeholders planning to enter the hospital market should consider partnerships with domestic companies as an option besides mergers and acquisitions.

Options for Investor in Indonesia

- **Joint venture:** Establishing a company by fulfilling all the requirements specified in the Horizontal Measures and the Foreign Capital Investment Law

Regulations for non-Indonesian investors in the hospital market

- Presidential Deed 44/2016 opens the opportunity for foreign investment of up to 67% in both general and specialty hospitals.
- The investment is subject to the approval of the Indonesia Investment Coordinating Board. Investment above IDR 100 billion and employing more than 100 people would be given priority completion, which takes only 3 hours.
- The government encourages knowledge transfers.

Opportunity for ASEAN investors

Hospital services are now open for 70% ASEAN ownership (previously 67%) under 44/2016, increasing the opportunities for partnerships and stakes amongst ASEAN members (especially Singapore and Malaysia).

Source: National Investment Coordinating Board; Frost & Sullivan

Pharmaceutical Market in Indonesia

Indonesian Pharmaceutical Market Overview

Key Takeaway: The generic segment remains the most attractive. Local and multinational drug manufacturers are expecting consumption to grow due to the strong post-JKN demand from government-run hospitals after 2014.

Key Trends in the Pharmaceutical Market

Private hospitals are increasingly accepting JKN patients; demand for generic pharmaceuticals will grow in this space.

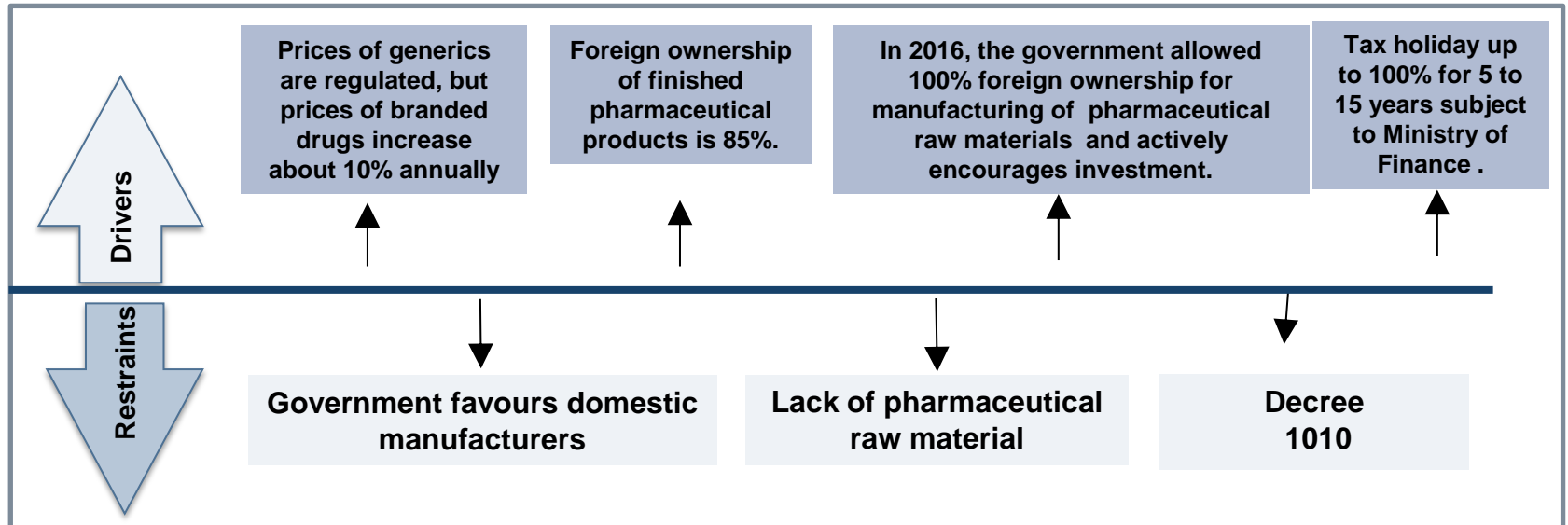
The middle-income local population increasingly prefers branded generics to lower-cost, unbranded drugs, creating opportunities for generic manufacturers and importers in Indonesia.

The highest proportion of ASEAN over the counter medicine (OTC) sales (40.0%) comes from Indonesia, indicating the propensity of domestic consumers towards self medication. OTC manufacturers can expect growing demand during the medium to long terms.

The Indonesian government has been pushing for self-sufficient drug production and opening the pharmaceutical industry to foreign investment. More foreign participants are expected to enter the Indonesian pharmaceutical market.

Source: National Agency of Drug and Food Control Indonesia; Frost & Sullivan

Indonesian Pharmaceutical Market Overview (continued)



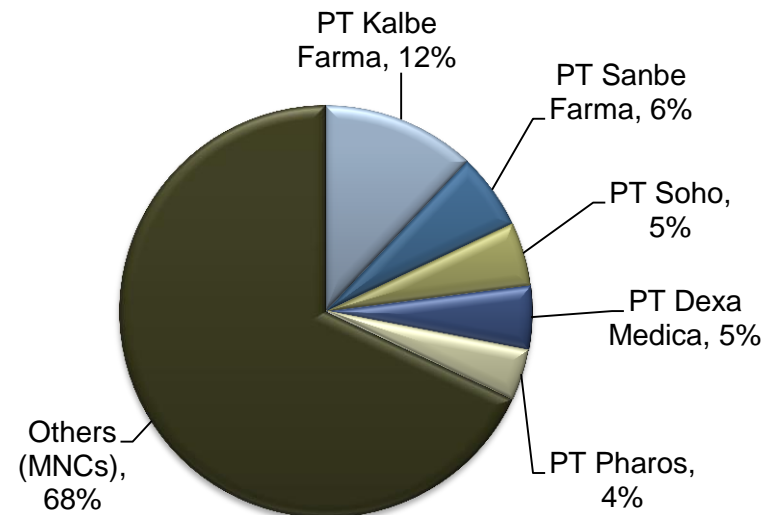
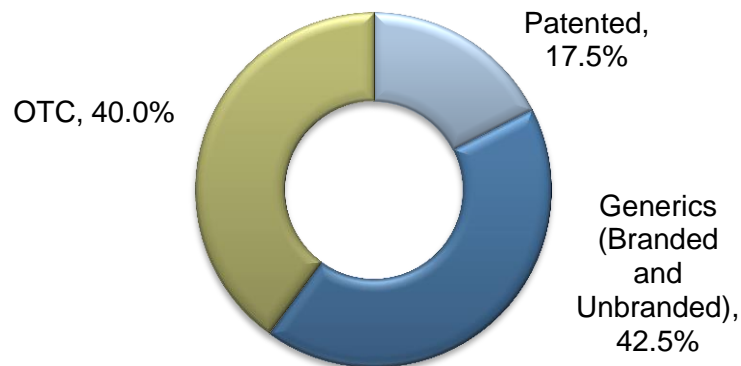
Industry	Foreign Ownership	
	Presidential Regulation 13/2014	Presidential Regulation 44/2016
Manufacture of raw material pharmaceutical	85%	100%
Pharmaceutical finished product	85%	85%
Narcotic production for pharmaceutical need	Subject to a special license from the Ministry of Health	Subject to a special license from the Ministry of Health
Traditional medicine	Closed for foreign ownership	Closed for foreign ownership

Source: Ministry of Health Indonesia; BKPM; Frost & Sullivan

Indonesian Pharmaceutical Market—Domestic Companies

Pharmaceutical Market: Market Share, Indonesia, 2015
Total Market Size = \$5.10 Billion

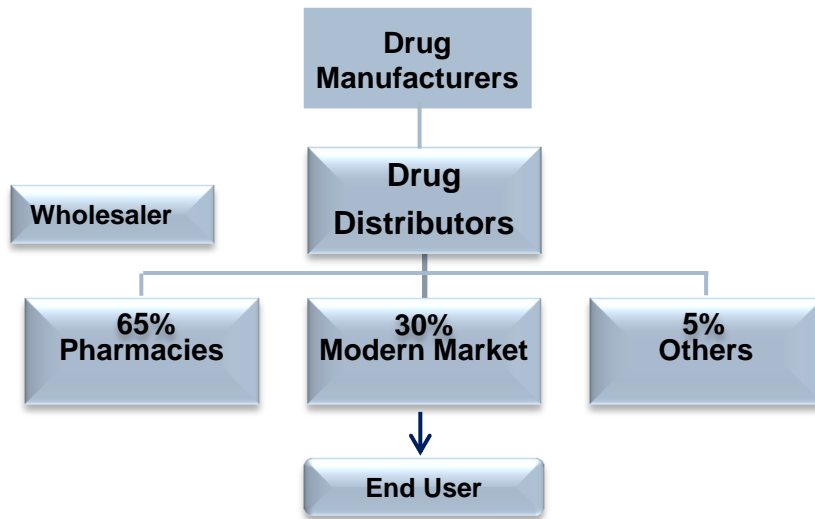
Pharmaceutical Market: Distribution of Pharmaceutical Segments, Indonesia, 2015



PT Kalbe Farma had the highest share in the pharmaceutical market in 2015 among domestic companies.

Note: All figures are rounded. The base year is 2015. Source: IMS Health; Frost & Sullivan

Indonesian Pharmaceutical Market—Distribution Channel Overview



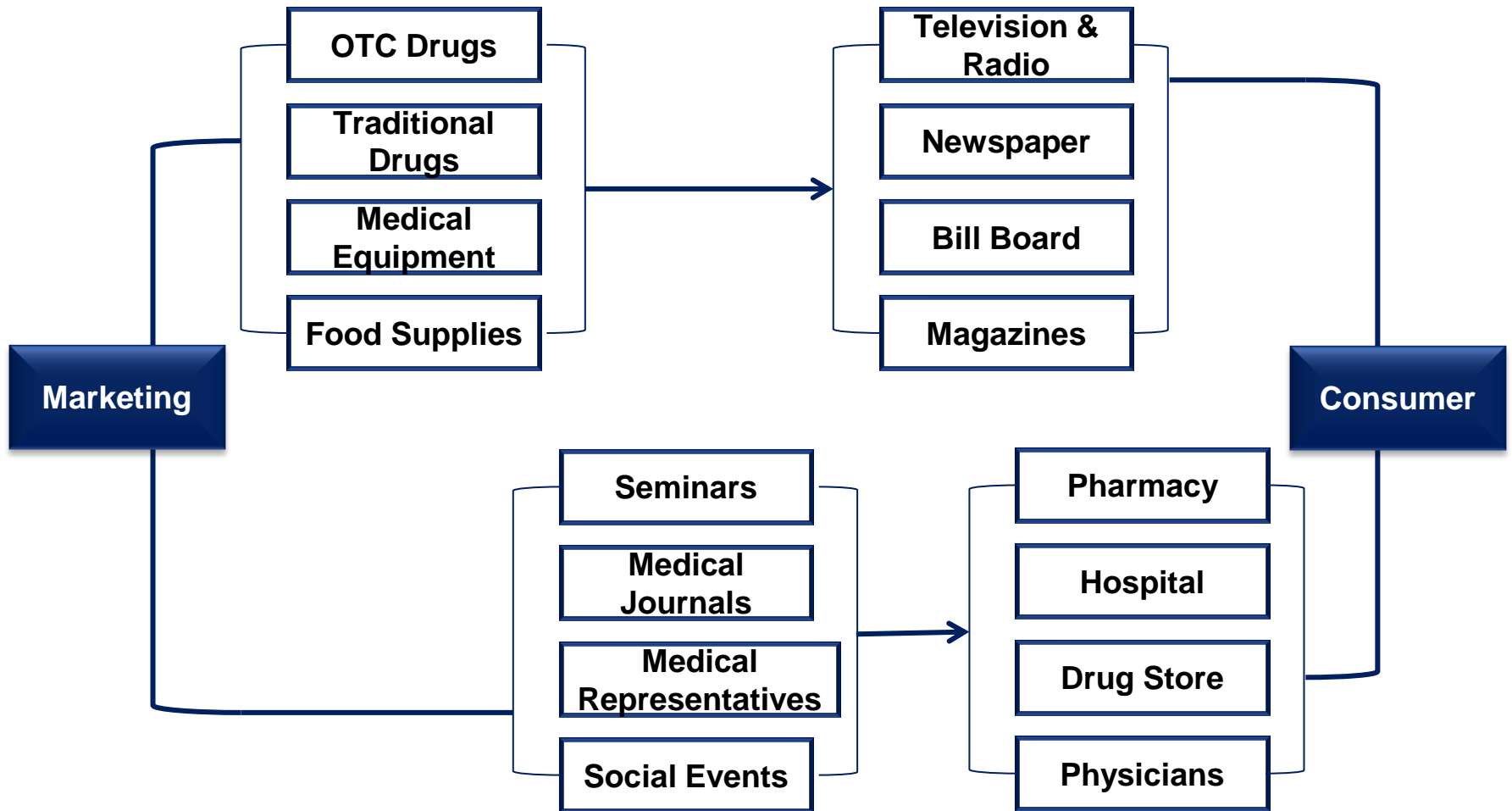
Channel	Pharmacies (Apotik)	Modern Market	Others
Definition	<ul style="list-style-type: none"> • Retail Pharmacy chains <ul style="list-style-type: none"> ○ Guardian Healthcare ○ Century Apotik Melawai • Hospital pharmacies • Clinic pharmacies 	<ul style="list-style-type: none"> • Hypermarket • Supermarket • Minimarket chain 	<ul style="list-style-type: none"> • Stand-alone retail stores • Service stations, for example, stand-alone traditional medicine stores

PT Kimia Farma Apotek is one of the strongest participants in the pharmaceutical retail market with 412 pharmacies (2012).

- Indonesia has more than 18,000 total pharmacies and registered outlets for the sale of pharmaceuticals products. Till 2013, the wholesale drug distributors enjoyed licenses for indefinite validity. However, from June 28, 2013, such licenses have been limited to five years only. The government is trying to regulate the market and check the sale of counterfeit medicines by such a move.
- There are many privately owned local apotik (pharmacies) in Indonesia, for example, Apotik Melawai (headquartered in Jakarta).
- The rural clinics usually have their own pharmacy, but with limited supply than city chemists.
- PT Enseval Putera Megatrading Tbk is the largest pharmaceutical distributor in Indonesia and specialises in the distribution and supply of pharmaceutical products, consumer products, devices, and so on.

Source: <http://www.expat.or.id/medical/pharmacies.html>; Frost & Sullivan

Indonesian Pharmaceutical Market—Communication Channel Overview



Source: National Agency of Drug and Food Control Indonesia; Frost & Sullivan

Indonesian Pharmaceutical Market—Highlights

Top 3 Prescription Drug Companies	Estimated 2015 Sales
PT Kalbe Farma	\$0.42 B
PT Sanbe	\$0.28 B
PT Soho	\$0.15 B

Top 3 Publicly Listed Consumer Health Product Companies	Estimated 2015 Sales
PT Tempo	\$0.48 B
PT Kalbe	\$0.30 B
PT Sidomuncul	\$0.10 B

- While all segments (prescription, OTC, and generic drugs) are expected to witness a strong CAGR up to 2020, public hospitals show a clear preference for generic drugs.
- Prices of generics are regulated, and are consistent throughout Indonesia.
- More than 40% of pharmaceutical sales are OTC, indicating that Indonesians favour self-medication. Due to the high occurrence of communicable diseases and epidemics, drugs are in demand as a countermeasure.
- BPJS is expected to drive growth due to the demand for low-cost medicines.
- Local companies spend 5 to 7% of revenue on R&D and focus on generics. Innovative drugs are expected to be introduced to tap into the growing private healthcare market.
- Key areas of growth are in supplements, infectious diseases, diabetes, analgesics, and oncology drugs.
- Cost of distributing drugs across thousands of islands in Indonesia using an underdeveloped infrastructure is high.

At the moment, the most profitable region is the Greater Jakarta area, which has most of the hospitals. Rural areas and suburbs hold strong potential for retail pharmacy as they are highly under-penetrated.

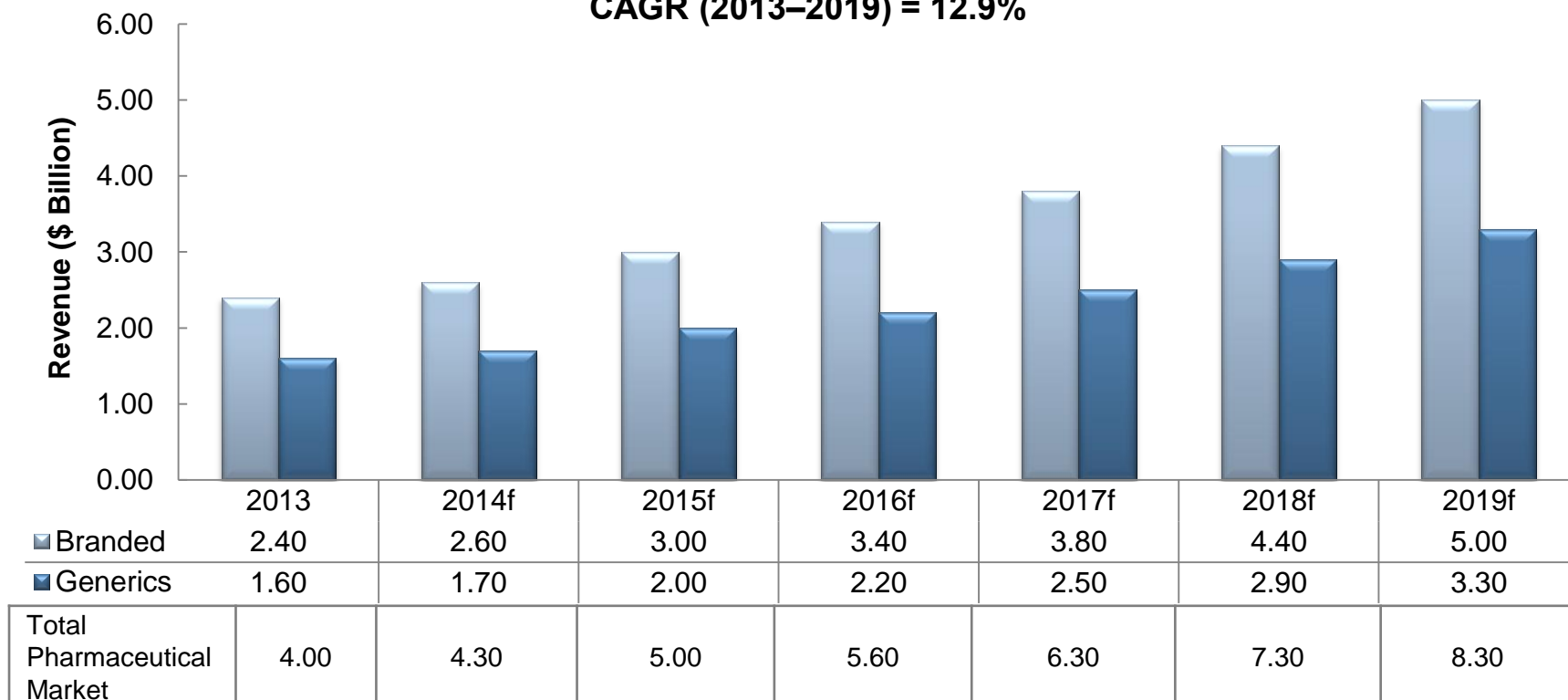
Source: IMS Healthcare; Kalbe Farma Annual Report 2015; Tempi Scan Annual Report 2015; Frost & Sullivan

Revenue Forecast—Pharmaceutical Market Indonesia

Key Takeaway: Indonesia's pharmaceutical market will witness higher growth of branded generics due to heavy demand and government support.

Pharmaceutical Market: Revenue Forecast, Indonesia, 2013–2019

CAGR (2013–2019) = 12.9%



Source: MOPI, Frost & Sullivan

Revenue Forecast Discussion

The Forecast

- Pharmaceutical companies will continue to suffer unless the government takes measures to control counterfeit medicines in the market. Counterfeit drugs pose a major problem in Indonesia.
- As for the overall medicines and pharmaceuticals segment, a growth rate of 5.9% per annum is likely for the top-tier hospitals in Indonesia—approximately 32.4% of the total hospital expenditure by 2020.
- Local participants of the generics market are so well established that the international brands such as Pfizer have re-worked their marketing strategies for innovative brand awareness reinforcement and expanded their generic arm in Indonesia.
- Foreign pharmaceutical companies often face tough competition from local manufacturers of low-cost generics. Domestic manufacturers are also patronised by the government via various schemes such as ASKES.
- Local clinical trials are not required in Indonesia. Drug approvals in Indonesia do not expire, although reregistration may be necessary if serious adverse effects are reported once the drug is in the market.
- Non-efficient and non-transparent IP protection for pharmaceutical products and medical devices leaves major loopholes in Indonesia's healthcare system and affects segment growth.

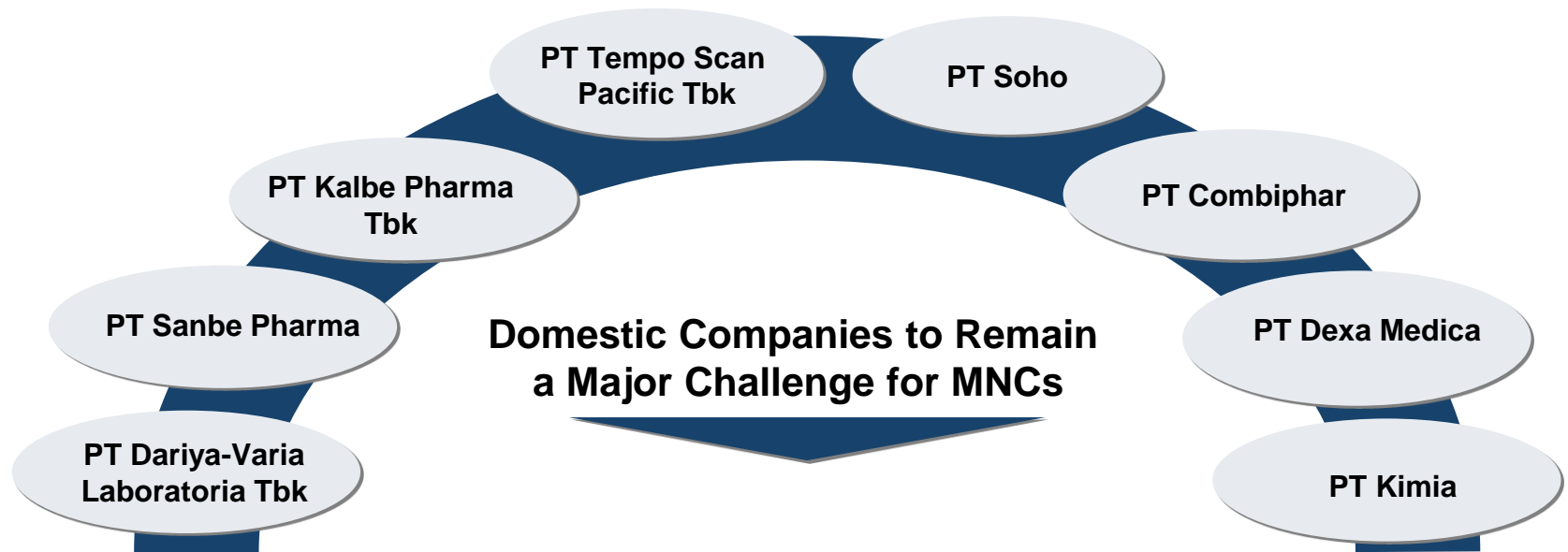
The Impact

The generics segment holds the key to success in the future and is expected to remain in demand due to heavy government purchases. The demand will increase post the availability of health insurance for all citizens. However, drug companies are not very optimistic about the increase in profit margins, as the prices are expected to be regulated and domestic participants will get the first preference.

Source: Frost & Sullivan

Competitors in the Pharmaceutical Market Indonesia

Key Takeaway: Domestic companies are likely to witness substantial growth for the next five years due to strong government support for generics.



PT Pfizer Indonesia, PT MSD Indonesia, and PT Sanofi-Aventis Group Indonesia have made strategic decisions to start or expand manufacturing operations in Indonesia. However, they are continuously challenged by local drug manufacturers who continue to have a stronghold on the market. Some of the manufacturers have considered local manufacturing firms as potential acquisition targets or tied up with partners such as Fresenius Kabi (2014).

Source: Frost & Sullivan

Ease of Entry for Stakeholders in the Pharmaceutical Market

Favorable Investment Landscape

- Indonesia's government has encouraged foreign investment.
- Investment above IDR 100 billion and that will employ a minimum of 100 people will be given priority handling, which will see major corporate documents finished within 3 hours.
- Import duty exemption for machinery, goods, and raw material for 2 years if those are not available in Indonesia.
- Tax allowance by reducing tax-deductible income by 5% per year and accelerating depreciation.
- Tax holiday up to 100% for 5 to 15 years on Ministry of Finance discretion, which depends of degree of knowledge transfer, number of employees, and initial investment

Support for Pharmaceutical Investment

- The government has aimed to be self-sufficient in pharmaceutical production.
- The focus is on the production of pharmaceutical raw materials.
- The government has invited pharmaceutical company from Germany and Singapore in 2016.



Is this enough?

The friendly Investment policy will encourage foreign companies to enter Indonesia. However, the lengthy product registration process and insufficient qualified manpower may hinder the growth of this industry.

Source: Ministry of Health Indonesia; BKPM; Frost & Sullivan

Regulations for Non-Indonesian Stakeholders Planning to Enter the Pharmaceutical Market and Implications

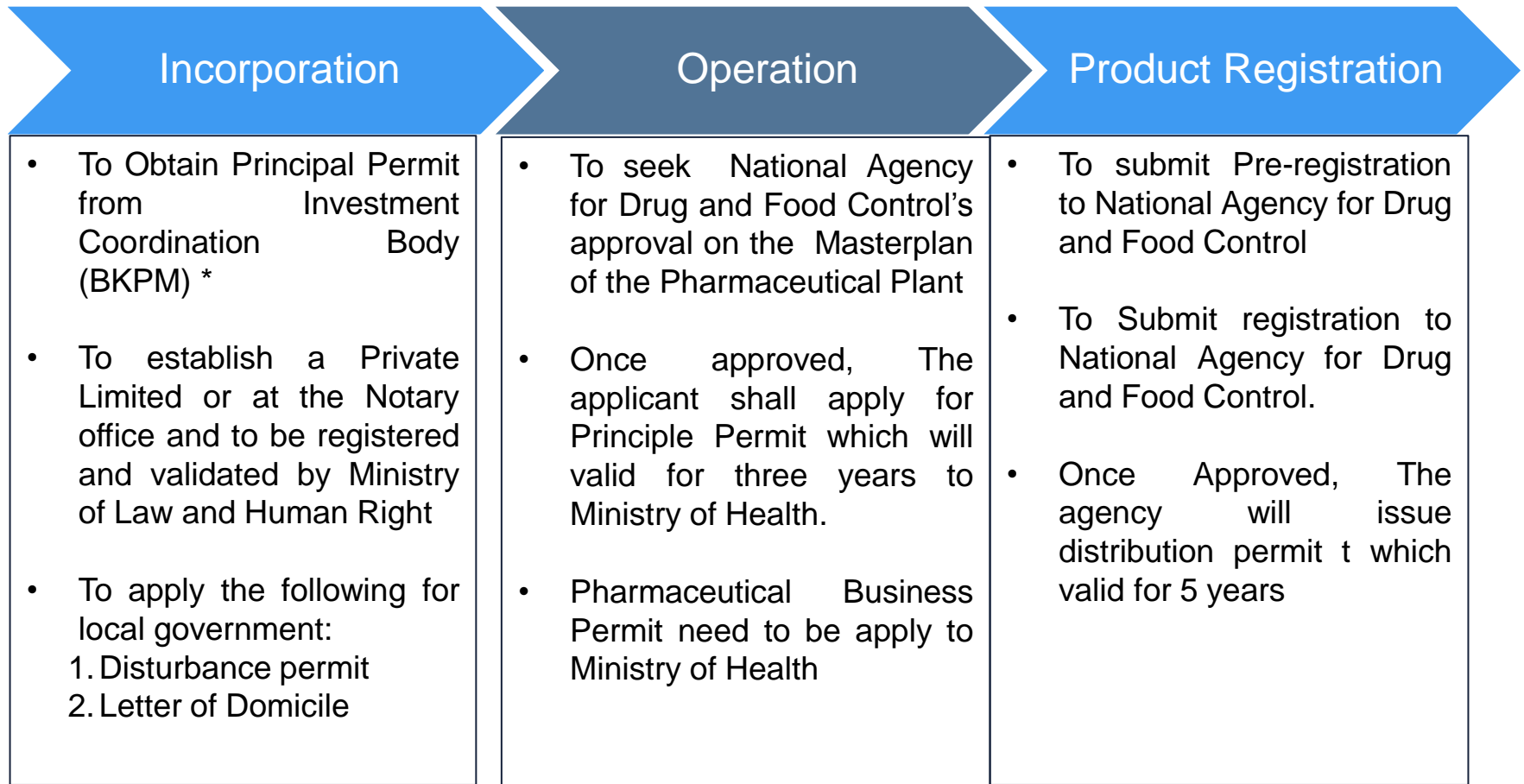
- Ministry of Health Decree 1010/2008 provide regulatory basis for the registration of **pharmaceutical finished products**. The decree has not changed since 2008.
- The approval is valid for 5 years.
- Foreign pharmaceutical manufacturer must either own manufacturing facility in Indonesia or to appoint local pharmaceutical company for registration process.
- Ministry of Health will only grant registration for imported pharmaceutical if :
 - Needed for Public Health Program
 - Needed but can not be produced in Indonesia.
 - It is new innovation .
- The producer need to transfer the knowledge of drug productions to allow for domestic production with the exception of patent products.
- Pharmaceutical raw material import is not subject for registration by Ministry of Health Decree 1010/2008.

Currently, regulatory irregularities have created challenges for many of the foreign companies. The government is making efforts to cut short the approval process, curb the factors responsible for delays, and make the system transparent.

Source: National Agency of Drug and Food Control Indonesia; Indonesia Ministry of Health; Frost & Sullivan

Regulations for Non-Indonesian Stakeholders Planning to Enter the Pharmaceutical Market

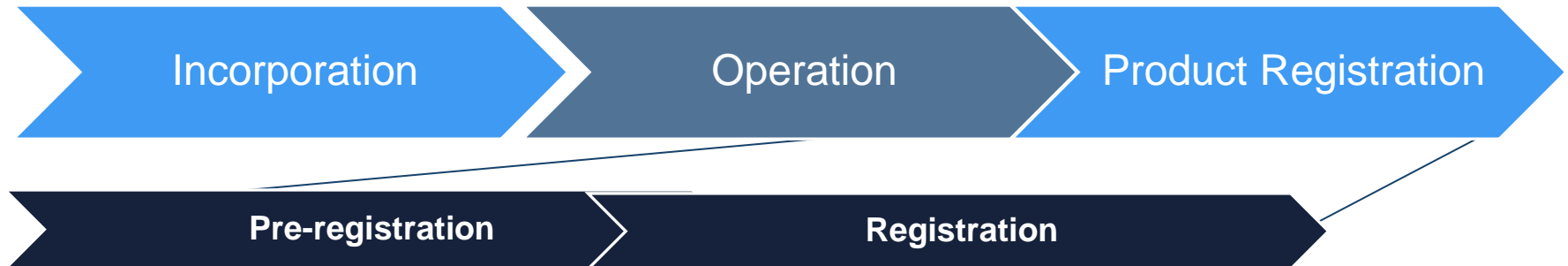
Process in Establishing a pharmaceutical company In Indonesia



Source: Ministry Of Health Indonesia; BKPM ; Frost & Sullivan

Registration of Pharmaceutical Finished Products in Indonesia.

Lack of clear standard in drug evaluation may be key driver for prolonged process*.



- To submit the form and pharmaceutical document which follow ASEAN Common Technical Dossier format and requirement.
- The pre-registration process will take up to **300 days** depending on the type of pharmaceutical.
- Additional data need to be supplied within 20 days of request or else the pre-registration process will be canceled.

- To submit the forms and risk management documents.
- For Patent drug, patent documents need to be provided.
- The National agency may request for sample of pharmaceutical.
- Additional data need to be submitted within **100 days** if not, the registration will be canceled.
- The regulations **do not specify the time for evaluation** process and estimated time to complete registration.
- The approved registration will result in :
 - Distribution permit.
 - Import permit in bulk .
 - Import and export permit .
 - Export permit (If required)
- The rejected proposal may be reply only after 6 months.

Source: National Agency for Drug and Food Control. Frost & Sullivan

Regulatory : Pharmaceutical Finished Products Registration Requirement

Ministry of Health Decree 1010/2008 provide regulatory basis for the registration of pharmaceutical products. The National Agency for Drug And Food Control Regulation HK.03.1.23.10.11.08481 Year 2011.

	Registration of Imported Pharmaceutical	Registration of Local Pharmaceutical
Regulatory Body	The National Agency for Drug And Food Control	
Applicable for	Finished Pharmaceutical products for import, export ,and those produce for 3 rd party	
Basic requirement	<p>The registered pharmaceutical shall have :</p> <ol style="list-style-type: none"> 1. Proven therapeutic benefit based on clinical, non-clinical and other evidences. 2. Good manufacturing practices 3. A clear labeling which contain clear indication and direction of its use. 4. Public demand. 5. For Psychotropic drug, it must be proven to be more effective than currently in the market. 6. For Contraception or other pharmaceutical for public health program , the clinical trial need to be conducted. 	
Type of Registration	<ol style="list-style-type: none"> 1. New Registration : <ol style="list-style-type: none"> 1. Category 1 : New drug or Biological products registration ,including Similar Bio therapeutic Products(SBP) 2. Category 2 : registration of copied drug 3. Category 3 : Registration other products which contain drug. 2. Registration of Variation <ol style="list-style-type: none"> 1. Category 4 : Registration of major variation (VaMa) 2. Category 5 : Registration of minor variation which require approval (VaMi-B) 3. Category 6 : Registration of minor variation which require notification (VaMi-A) 3. Reregistration : <ol style="list-style-type: none"> 1. Category 7: Reregistration 	

Regulatory : Pharmaceutical Finished Product Registration Requirement

Ministry of Health Decree 1010/2008 provide regulatory basis for the registration of pharmaceutical products. The National Agency for Drug And Food Control Regulation HK.03.1.23.10.11.08481 Year 2011.

	Registration of Imported Pharmaceutical	Registration of Local Pharmaceutical
Requirement	<ol style="list-style-type: none"> 1. To work with local Pharmaceutical Industry. 2. To have the following from the country of origin : <ul style="list-style-type: none"> • Pharmaceutical Industry permit. • Good manufacturing practice certificate. 3. To submit previous 2 years of audit report on the good manufacturing practice from relevant authority of the country of origin. 4. Site master file may need to be submitted if : <ol style="list-style-type: none"> 1. The overseas producers have not had the products in the same form and type which is circulated in Indonesia. 2. The overseas producers have same form and type but have changed the production facilities. 	<ol style="list-style-type: none"> 1. Pharmaceutical industry Permit 2. Good Manufacturing Practice Certificate

Regulatory : Pharmaceutical Raw Materials

Head of National Agency for Drug and Food Control 28/2013

- All Pharmaceutical raw materials should have certificate of Good Manufacturing Practice and Safety Information which issued by relevant agency .
- Specifically for imported pharmaceutical raw materials, it can only be imported by local pharmaceutical manufacturer for production purpose.
- The local pharmaceutical shall registered themselves into National Agency for Drug and Food Control Portal at Indonesia One Single Window website.
- In order to apply for import clearance, the local company shall submit administrative details along with producer's certificate of GMP and Safety Information on the products.
- With completion of the documents, the agency will give approval within 1 day.




As Import of pharmaceutical raw material is not subject for product registration , import and selling such product to targeted market is much simpler.

New Market Opportunity—Pharmaceutical Market Indonesia

Key Takeaway: Profit margins from generic drugs are usually lower than originator drugs; however, this could be offset by the potential size of Indonesia's market and thus generics manufacturers still make better profits.

- The Indonesian government's healthcare insurance policy mandates the use of biosimilars/generics because they are cheaper. Generics manufacturers are promoted more than originators and the latter is left with the burden of proof on more expensive innovator brands to show that they are, in fact, safer, more effective, or have better quality control.
- Government funds are mostly used to support vaccines and anti-infectious drugs (the latter with a high priority).
- The promotion of generics along with vaccines remain a high opportunity segment for investors.



-  Potential market
-  Growing market
-  Nascent market

Source: Frost & Sullivan

Strategic Recommendations

Opportunities for Foreign Investors

Demand in Indonesia's overall healthcare market has increased largely due to implementation of the JKN scheme in January 2014.

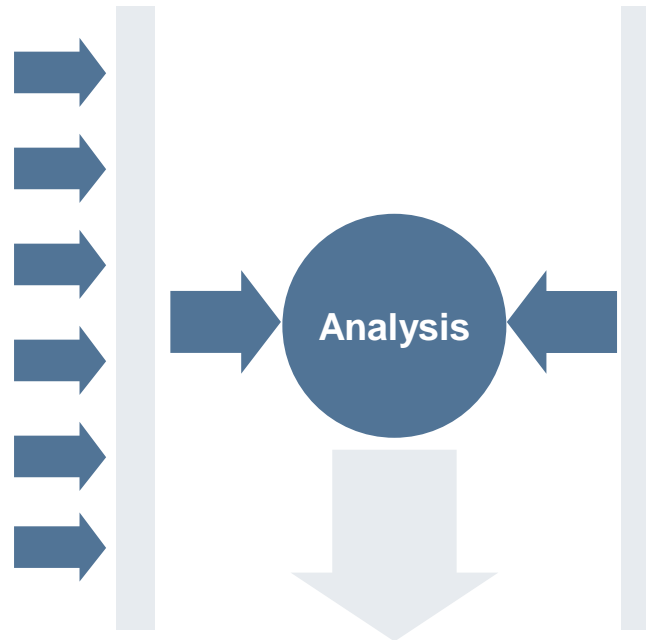
- The implementation of the JKN scheme encourages growth in hospital numbers to address large volumes of the country's population, which, prior to the JKN, could not afford quality healthcare treatment.
- Indonesia also has an unequal distribution of hospitals across the country, as most hospitals are located in Java and Sumatera Islands. This results in a huge demand for hospitals and clinics in developing and rural areas.
- An increase in the number of hospitals will lead to a greater need for medical devices, hospital equipment, and drugs. More advanced and high-quality equipment is expected to be in demand amongst private hospitals. Indonesia's growing economy will also boost the personal disposable income rate.
- The expected outcome is that a larger number of people will seek private healthcare because of the perceived higher quality and less traffic to meet with doctors or specialists.

Source: Frost & Sullivan

Future of the Indonesian Healthcare Market

Relevant Trends

- Increasing incidence of chronic diseases
- Rising burden of lifestyle-related diseases
- Increasing healthcare costs
- Declining profit margins
- Evolving consumer profile
- Increasing consumer awareness
- Dynamic regulatory environment



Unmet Needs

- Early detection and diagnosis (advanced technology)
- Improved long-term care
- Underserved population in smaller islands
- Lack of innovation in medical technology sector
- Real-time and personalised healthcare delivery
- Poor growth in healthcare IT (poor reach of the Internet)

Strategic Recommendations

- Joint partnerships with local drug makers and distributors along with acquisitions are expected to provide a quick entry into the market. Established manufacturers of generic drugs have access to technology and knowhow of the global participants in a cost-competitive marketplace.
- Domestic companies (especially in the pharmaceutical market) still have a long way to go in terms of quality, efficiency, and innovation.
- The telemedicine market holds more potential and few foreign companies have already taken the lead.

Source: Frost & Sullivan

3 Key Predictions

1

National Healthcare Insurance Will Increase Demands for Low-Cost Medicines

The long-term effect of the National Health Insurance Programme, JKN, is expected to create additional demand for drugs in the lower end of the market rather than cause large-scale substitution of premium products. This is because all the government-run hospitals are going to increase the demand for more drugs and improve access to healthcare in rural areas and affordability of healthcare for the poor.

2

Greater Jakarta still the most Attractive Destination; areas such as Bandung and Surabaya Hold Potential for Future

Greater Jakarta still remains the most attractive region due to strong infrastructure support, accessibility, and the presence of major hospitals. However, areas such as Kalimantan and Papua (outer Jakarta) are equally attractive besides Bandung and Surabaya. The manufacturing sector is likely to move to newer areas such as Sei Mangke, North Sumatra, Tanjung Lesung, and Banten as well as to the existing free-trade zone in the Riau Islands of Batam, Bintan, and Karimun.

3

High Opportunity for Private Healthcare Service Providers to Step in and Fill the Gap Created by JKN

Private healthcare services will have to address the huge gap in healthcare infrastructure, as public hospitals alone will not be able to serve all the new patient pool entering the OPD through JKN. High demand for quality private hospitals will be prevalent in the market and continue till 2019.

Source: Frost & Sullivan

Analysis of Strategic Opportunity for Indian Company (1/4)

Generic drug imports to Indonesia will face challenges that will delay the market entry and regulations that limit long-term sustainability.

Opportunity	Rationale	Opportunity for Indian Companies	Challenges
Generic drug import	<p>Universal healthcare coverage has increased demand for generic drugs.</p> <p>Certain drugs are not produced or sufficient in Indonesia despite the strong demand (e.g., chemotherapy and hepatology drugs)</p>	<p>Some Indian companies have expertise in generic drug production (e.g., Lupin Limited, Sun Pharma, Dr. Ready's Laboratories)</p> <p>India has the production capacity, availability of pharmaceutical raw materials, and affordable manpower that lower production costs and can be competitive in Indonesia market.</p>	<p>Registration of imported drug is time consuming (2 years or more)</p> <p>The verification and evaluation process is unclear and often inconsistent.</p> <p>The requirement to transfer knowledge to local partner to provide ability to produce the drug locally.</p> <p>Government may protect local industry participants by enforcing decree 1010/2008.</p>

Analysis of Strategic Opportunity for Indian Company (2/4)

Strong demand and simpler market entry, price is a key determining factor

Opportunity	Rationale	Opportunity for Indian Companies	Challenges
Import of pharmaceutical raw material	<p>The increased demand for drugs will increase demand for raw materials.</p> <p>Indonesia does not have the capacity to produce most of its pharmaceutical raw materials.</p> <p>While the government has encouraged local and foreign investment to set up the pharmaceutical raw materials industry, the industry is not expected to be productive in the next 5 years and will not be able to meet local demand in this decade.</p>	<p>The majority of Indian pharmaceutical companies are producers of pharmaceutical raw materials.</p> <p>Import of pharmaceutical raw materials is not subject to product registration under Indonesian law. Therefore, the import process can be faster (1 day upon completed application).</p>	<p>China is one of main competitors for India for this segment. The ability to push the price as low as possible is key of winning the market share.</p>

Analysis of Strategic Opportunity for Indian Company (3/4)

Favorable investment landscape and government push on pharmaceutical industry will ease market entry, but lack of manpower and raw materials may be a challenge.

Opportunity	Rationale	Opportunity for Indian Companies	Challenges
Setting up a pharmaceutical company in Indonesia	<p>JKN has increased demand for pharmaceutical products; however, local manufacturing facilities have limited capacity and ability to produce certain drugs.</p> <p>The government is pushing for pharmaceutical companies and has introduced tax holidays, incentives, and waivers (for imported machines and raw materials unavailable in Indonesia)</p>	<p>Indian companies may benefit by setting up pharmaceutical company in Indonesia because:</p> <ul style="list-style-type: none"> • They can capture the market potential without the need to pass production technical knowledge to a local company. • Indonesia's labor cost is relatively cheap, at US\$100 to USD\$300 per months depending on area. • India's technical pharmaceutical manufacturing capability may be a good bargain point to speed up drug registration and other financial privilege. <p>A Indian parent company can synergize with the its local entity by supplying raw pharmaceutical materials.</p>	<p>Lack of skilled manpower</p> <p>Lack of raw materials for drug production</p>

Analysis of Strategic Opportunity for Indian Company (4/4)

Favorable investment landscape and support from local industry players, but lack of skill manpower and regulatory uncertainty may hinder the market entry.

Opportunity	Rationale	Opportunity for Indian companies	Challenges
Setting up a pharmaceutical raw material company in Indonesia	<p>90% of pharmaceutical raw materials are still imported .</p> <p>Government is currently pushing for development of Pharmaceutical raw materials and has introduced tax holiday , incentive and waiver (for imported machine and raw materials which unavailable in Indonesia)</p> <p>The local players are supporting foreign investment as they note on the financial and technical constrain .</p>	<p>Indonesia has favorable investment policy and relatively low labor cost which is favorable to set up a pharmaceutical raw product's manufacturing base to cater for Indonesian , ASEAN and Oceania market.</p> <p>India is a key exporter of pharmaceutical raw materials to Indonesia, having based the plan in Indonesia, it may reduce the logistic cost to make Indian company more competitive in local market.</p> <p>Up to 100% ownership</p>	<p>Lack of skilled man power.</p> <p>May be faced with regulatory uncertainty as a new industry segment.</p>

The Last Word

Can JKN drive the future of Indonesia's healthcare economy?

How will the pharmaceutical market grow during the next 5 years?

Will the private hospitals market become the most profitable segment in Indonesia?

Will the citizens switch to quality private hospitals even after JKN coverage?



So What?

JKN participants are expected to have access to healthcare services at 9,217 community clinics and 1,710 participating hospitals (of Indonesia's 2,350). Investors can anticipate a sharp rise in the demand for consumables, medicines, medical devices, and hospital beds.

In the short term, JKN is expected to boost the prescription drug demand in Indonesia, as it will cover medical consultation and drug costs for participants.

JKN rollout in January 2014 is expected to drive the demand for inpatient and outpatient services at public hospitals and participating private hospitals, as large-ticket hospitalisation and specialist expenses will now be covered under JKN.

Higher patient volumes will be driven by increasing purchasing power, as the JKN will subsidise or fully cover medical costs at participating hospitals; middle-to upper-income patients are also expected to switch to private hospitals as public hospitals become overcrowded by the growing number of JKN patients.

Source: Frost & Sullivan



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