This Sector Report was created by the EIBN unit at:

Indonesian French Chamber of Commerce and Industry
(IFCCI)

www.ifcci.com
Contents
Methodology .................................................................................................................. 5
Executive Summary ......................................................................................................... 6
Introduction ....................................................................................................................... 7
I. OVERVIEW OF INDONESIA’S HEALTHCARE ............................................................. 9
   1.1. A Snapshot of Indonesia’s Health Landscape ....................................................... 9
       1.2.1. Health Expenditure .................................................................................... 13
       1.2.3. National Health Insurance Programme (JKN) ......................................... 13
   1.3. Health Financing .................................................................................................. 15
   1.4. Structure of Indonesia’s Healthcare System ...................................................... 17
       1.4.1. Public Hospitals, Private Hospitals, and Clinics ...................................... 17
       1.4.2. Healthcare Centres at District Level ......................................................... 20
II. MARKET STRUCTURE ................................................................................................. 21
   2.1. Indonesia’s Medical Devices Market ................................................................. 21
   2.2. Major Players ....................................................................................................... 25
       2.2.1. Key Local Suppliers .................................................................................. 25
       2.2.2. International Companies .......................................................................... 30
III. BUSINESS OPPORTUNITY ......................................................................................... 33
   3.1. Medical and Surgical Devices ............................................................................ 34
       3.1.1. Dental Equipment ...................................................................................... 34
       3.1.2. Medical Equipment ................................................................................... 36
       3.1.3. Laboratory Equipment .............................................................................. 39
   3.2. Participation in Establishing Hospital and Clinic Projects ................................ 42
   3.3. Household Healthcare Devices ......................................................................... 43
IV. REGULATION, STANDARD AND TAXES ................................................................. 44
   4.1. New Digital Signature System for Medical Device Registration ...................... 44
   4.2. ASEAN Medical Device Directive ..................................................................... 44
   4.3. Indonesian Medical Equipment and Household Supplies Regulations ........ 46
       4.3.1 Registration .................................................................................................. 47
       4.3.2. Electronic System to Control Medical Devices ........................................ 49
       4.3.3. Product Certification SNI ISO 13485:2016 ................................................. 50
       4.3.4. Investment: the Negative List ...................................................................... 50
       4.3.5. Government Procurement ......................................................................... 52
       4.3.6. Local Content ............................................................................................. 53
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3. Taxes and Duties</td>
<td>53</td>
</tr>
<tr>
<td>V. CHALLENGES</td>
<td>54</td>
</tr>
<tr>
<td>Conclusion</td>
<td>56</td>
</tr>
<tr>
<td>Relevant Contacts and Trade Fairs</td>
<td>57</td>
</tr>
<tr>
<td>A. Relevant Contacts</td>
<td>57</td>
</tr>
<tr>
<td>B. Trade Fairs</td>
<td>58</td>
</tr>
<tr>
<td>References</td>
<td>64</td>
</tr>
<tr>
<td>About EIBN</td>
<td>70</td>
</tr>
<tr>
<td>Disclaimer</td>
<td>71</td>
</tr>
</tbody>
</table>
Methodology

This desk research highlights the opportunities for investors and outlines the industry’s characteristics (e.g. market size, growth potential), the structure of the market, key stakeholders and major providers, future trends, regulations, and existing challenges.

In preparing this report, EIBN makes use of wide ranging literature, data sources, and methods. General information about the medical devices market was gathered from publicly available sources; news articles, official company websites, publications, the Ministry of Health of the Republic of Indonesia, and the World Health Organisation. In addition, we have also gathered information from local market stakeholders, interviewing some where necessary.

In some instances, where the latest official data has not yet been published, we have used the most recent data, for example, when data and figures were still unavailable for 2018, we instead used data from previous years. References also denote from where the data was retrieved.

This report begins with an overview of Indonesia’s healthcare system, including government policies and plans, as well as health financing. The report also identifies key players in the market, such as associations, importers and distributors. Business opportunities in Indonesia’s local market are examined, while there is also discussion on the applicable regulations, standards, and taxes. Finally, the report outlines the present challenges, relevant contacts, and recent/upcoming exhibitions.
Executive Summary

The objective of this market study is to provide an overview of the current situation and potential of Indonesia’s medical devices industry. The subsectors of this industry include the dental equipment, medical equipment, and laboratory equipment industries.

In 2018, the total market value of national medical devices was estimated to be USD 3.5 billion or an increase of 25% from the USD 2.8 billion of the previous year. It is a sector that has been growing at around 12% annually, the substantial growth in the demand for these products largely being fuelled by the government’s implementation of the National Health Insurance (Jaminan Kesehatan Nasional, or JKN) programme. These figures underline the attractiveness of Indonesia as a trade and investment market destination for both local and foreign companies.

Indonesia’s population will reach 265 million by the end of 2018, the world’s fourth largest. Statistics tell us that in 2019, the country will have 15.4 million people aged 65 or older. This group is expected to continue to grow by over 40% by 2025, which will make the nation one of Asia’s most rapidly-aging countries. This will have an enormous impact at an economic and social level, particularly in the healthcare sector with a marked increase in demand for medical devices.

At present, imported products still dominate the market, in the main being technologically advanced medical instruments and infrastructure such as lasers, CT scan and other diagnostic equipment. Indeed, many high-tech medical devices such as units for radiotherapy, cardiotocography, electrical mucus suction, mobile X-ray, mammography, digital panoramic, dental X-ray, cryosurgery, dental elevator, etc. have yet to be produced in Indonesia.

An importer of high-tech equipment, Indonesia also remains an importer of such basic medical devices as tweezers and scissors for eye surgery. However, domestic medical device producers do already manufacture many basic items such as surgical gloves, bandages, orthopaedic aids, hospital furniture (e.g. patient beds and drawers), wheelchairs, portable sterilizers, disposable gowns, anaesthesia machines, coronary stents, medical needles and surgical thread. According to data from the Ministry of Health, the growth of the national medical equipment industry in early 2018 was showing an upward trend.

Among updates on regulation are the new digital signature system for medical device registration, ASEAN Medical Device Directive harmonization (AMDD) and the Presidential Instruction (Inpres) No. 6 of 2016 regarding Acceleration in the Development of the Pharmaceutical Industry and Medical Devices. There are still obstacles to overcome in this business, however, such as the lengthy process to obtain a license, competitive pricing, local content rules, plus a scarcity of suitable infrastructure and human resources.
Introduction

Indonesia remains an attractive destination for foreign companies in the trading and investment market because of its burgeoning population and steady economic growth. With a population of some 265 million people, of whom 70% are of working age, Indonesia is the fourth most populous nation in the world behind China, India and the USA. It is South-East Asia’s largest economy in 2018, with GDP adjusted for Purchasing Power Parity (PPP) of USD 3.2 trillion and GDP per capita of USD 12,283 (International Monetary Fund; IMF).

The medical devices market in Indonesia is growing at a pace of around 12% per year. \(^1\) Demand for these products is growing rapidly in line with the government’s National Health Insurance (Jaminan Kesehatan Nasional, or JKN) programme. By 2019, the government aims to cover 95% of the population through its national health insurance scheme.

Imports of medical devices and pharmaceuticals have been progressively rising due to the promotion of healthcare awareness among the public, as well as the expansion of hospitals by the central government. In order to attract more foreign investment, the Indonesian government has already fully opened up the medical device industry to 100% foreign direct investment (FDI), providing it’s high technological products that are being produced. Nor is it just the medical devices sector that has been fully opened for FDI, but also the manufacture of raw materials for medicines.

According to the International Trade Administration of the US Department of Commerce, the 2018 total market size of Indonesia medical equipment is estimated to be USD 3.5 billion, a 25% increase from the USD 2.8 billion of the previous year.\(^2\) This comprises total imports of USD 2.0 billion and local production of USD 1.7 billion, of which only 13.8% (USD 243 million) is exported. Meanwhile, according to the Association of Indonesian Medical Equipment Manufacturers (ASPAKI), the national 2018 medical equipment market is valued at USD 1.0 billion or IDR 13.5 trillion. \(^3\)

| Table 1: Indonesia Medical Equipment Total Market Share (Unit: USD millions) |
|---|---|---|---|
|  | 2015 | 2016 | 2017 (estimated) | 2018 (estimated) |
| Total Market Size | 1,864 | 2,286 | 2,826 | 3,543 |
| Total Local Production | 1,320 | 1,452 | 1,597 | 1,756 |
| Total Exports | 182 | 201 | 221 | 243 |
| Total Imports | 726 | 1,035 | 1,450 | 2,030 |

Source: Indonesian Medical Device Producers Association (ASPAKI), Statistics Indonesia (BPS), and U.S. Department of Commerce Trade Stats Express 2017.

Overall, Indonesia is heavily dependent on imported medical equipment and supplies to meet local demand. Total imports of medical equipment grew 42.9% from USD 1.4 billion in 2017 to an estimated USD 2.0 billion in 2018. Countries competing for Indonesian market share in the medical equipment and supplies sector include the USA, Germany, France, Italy, Switzerland, Russia, Singapore, Japan, China, and Korea. Companies from China and Korea

---

in particular provide the greatest challenge to the other firms as they offer lower-priced equipment and a sustained presence in the South-East Asia region.4

Up to 92% of Indonesia’s medical equipment and devices are made up of imports, mostly relating to medical and surgical instruments and infrastructure with medium-to-high technology like medical lasers and diagnostic equipment. In the past, domestic production mainly focused only on the manufacture of basic items like surgical gloves, bandages, orthopaedic aids, and hospital furniture. Since 2016, however, local companies have been capable of producing other medical equipment, such as sphygmomanometers, stethoscopes, urine catheters, infant incubators, nebulizers, oxygen concentrators, dental chairs, EKGs, fetal dopplers, syringe pumps, infusion pumps, operating lamps, medical dressings (i.e. operating gowns, bed sheets), rapid tests (i.e. HIV, hepatitis, and pregnancy tests, among others), blood-grouping reagents, and first-aid boxes & kits.5

Meanwhile, direct investment in Indonesia’s medical device industry soared nearly seven-fold to IDR 4.7 trillion (approx. USD 343 million) in 2017 compared to the previous year. This rising investment comes from both new and existing local companies, foreign investors, and local-foreign joint ventures. Examples of recent investment in Indonesia’s medical device industry include a IDR 91.5 billion (approx. USD 6.7 million) coronary stent manufacturing plant in Tangerang (Banten), and a USD 1.2 million surgical suture factory in Cikarang (West Java).

A total of 27 new companies entered Indonesia’s medical devices industry in 2017, raising the total number of companies active in the sector to 242. Together they produce 294 different medical device products. In the future, however, Indonesia’s Health Ministry specifically wants to encourage domestic development in the manufacture of mid to upper level class products, as currently, such premium products need to be imported with local manufacturers never having contributed even 10% to the total.

Besides encouraging investment in the medical devices sector, the government also continues to boost involvement of the private sector in developing hospitals. Both central and regional governments are planning to equip community health centres with inpatient facilities and improve their quality of services throughout the 34 provinces. This provides huge opportunities for medical device producers and distributors to benefit from the momentum.

The medical device market of Indonesia is growing at a pace of around 12% per year. Demand for these products is growing rapidly in line with the government’s Universal Health Coverage (JKN) implementation of which began in 2014. The goal is to cover 95% of the population through this insurance scheme. A report shows that as of April 2018, 195 million Indonesians were covered under JKN (approximately 75% of the population). This programme will stimulate the growth in demand for advanced healthcare equipment and medical devices. European manufacturers of medical devices should indeed take advantage of this growing market.

---

4 Ibid
I. OVERVIEW OF INDONESIA’S HEALTHCARE

1.1. A Snapshot of Indonesia’s Health Landscape

The population of Indonesia is estimated to reach 265 million by the end of 2018, the world’s fourth largest after China, India and the United States. In 2019, Statistics Indonesia’s (BPS) estimate that Indonesia will have 15.4 million people aged 65 years or older. The elderly population is expected to continuously increase by over 40% by 2025, which will make Indonesia one of Asia’s fastest-aging countries. This will have an enormous impact at the economic and social level, especially in the healthcare sector.

Great progress has been made in Indonesia’s health sector from 1990 until today. By 2018, national life expectancy has increased by eight years to become 71.7 years, while there has also been a decrease in the incidence of infectious diseases such as diarrhoea and tuberculosis (TB). Meanwhile, the most common diseases, specifically among the elderly, are hypertension, arthritis, stroke, oral health problems, chronic pulmonary diseases, and diabetes. According to a recent report released by the World Health Organisation (WHO), stroke, ischemic heart disease, and diabetes are the top causes of death in Indonesia.²

As elsewhere, however, health problems are not just restricted to senior citizens. Currently, Indonesia also faces an increasing challenge with various non-communicable diseases, including heart disease, diabetes, stroke, and cancer among others that affect the population in general regardless of age or gender. This is reinforced by a recent study conducted by the Institute for Health Metrics and Evaluation (IHME) from the University of Washington involving Indonesian researchers. According to the study, Indonesia is currently facing the challenge of a ‘Double Burden of Disease’. On the one hand the country must make various efforts to reduce infectious diseases and various maternal and infant health problems, while on the other, it also needs to prevent and overcome non-communicable diseases, the treatment for which requires huge costs.³

Similar results were also evident based on the earlier study entitled, "On the road to universal health care in Indonesia, 1990-2016: a 2016 systemic analysis for the Global Burden of Disease Study". The report ranked the 10 causes of death that Indonesians in general suffered in 2016, as follows:⁴

1. Ischemic heart disease  
2. Stroke  
3. Diabetes  
4. Tuberculosis (TB)  
5. Lower back pain and neck pain  
6. Complications caused by premature birth  
7. Problems related to the five senses  
8. Traffic injuries and accidents  
9. Skin disease

---

tanian-terbanyak-di-indonesia/
⁴ Ibid
10. Diseases associated with diarrhoea

The rising middle class is expected to drive demand for affordable health care. However, to benefit from the increased demand for affordable health care, investors should carefully survey the needs of the low-to-middle-income class and focus on strict cost management and resource sharing with other hospitals.

There have been lifestyle changes within the country’s rising middle class, some of whom undergo a rather unhealthy lifestyle and are thus expected to continue driving an increase in lifestyle-related diseases. Furthermore, data from WHO suggests that 67% of Indonesian adult males are cigarette smokers regardless of their economic class, and hence more likely to suffer lifestyle-related diseases such as cardiovascular disease, tuberculosis and cancer.

Meanwhile, data from the ASEAN Millennium Development Goals (MDGs) in 2017 reveal that 2015 figures for maternal deaths in Indonesia at 305 per 100,000 live births, three times higher than the nation’s MDG target of 102 per 100,000. This figure places Indonesia as having the second highest death rate in South-East Asia.\(^9\) Nevertheless, the indicators of overall health status in Indonesia have improved significantly over the last two and half decades with life expectancy rising from 63 years in 1990 to 71 years in 2012, under-five mortality falling from 52 deaths per 1,000 live births in 2000 to 31 deaths in 2012, and infant mortality falling from 41 deaths per 1,000 live births in 2000, to 26 deaths in 2012.\(^10\)

According to WHO, diphtheria is making an alarming comeback in countries suffering from significant gaps in healthcare provision. Indonesia is one of the countries that reported diphtheria outbreaks in 2017, requesting support from WHO for response operations, technical guidance and supplies of diphtheria medicines and vaccines.\(^11\) Some health problems have been largely resolved in Indonesia, of course, such as lack of Vitamin A, iodine, red blood cells (anaemia). Major difficulties still remain in resolving other health issues though, such as malnutrition and stunting. In 2013, for example, 37.2% of children under five in Indonesia experienced stunting. Moreover, this condition is often considered to be normal because of hereditary reasons.\(^12\)

Air pollution in Indonesian urban areas is largely due to motor vehicles. In a 2017 study on air pollution in Jakarta, Bogor, Depok, Tangerang and Bekasi (Greater Jakarta area), Greenpeace Indonesia revealed that the pollution level of the carcinogenic pollutant PM 2.5, was three times higher than the maximum “safe” level recommended by the World Health Organisation (WHO) of 25 micrograms per cubic meter of the fine particles that pose serious threats to health and life.\(^13\)

The number of medical personnel, and in particular doctors, in Indonesia has increased over the past six years. According to data from the Ministry of Health, in 2010 there were 25,333 general practitioners, 8,403 specialists, and 8,731 dentists, whereas moving on to 2015, this figure has increased to 41,026 general practitioners, 47,894 specialists, and 11,686 dentists.

---


\(^12\) 6 Masalah Gizi yang Paling Sering Terjadi di Indonesia, dari Balita Hingga Dewasa. Hello Sehat. 16 Januari 2018. Available at: https://hellosehat.com/hidup-37.2%

It was the number of specialists that showed the largest increase over the time frame. As of 26 October 2018, meanwhile, the Indonesia Medical Council suggests that there are not less than 131,378 general doctors, 37,239 specialist doctors, 31,243 dentists and 3,735 specialist dentists, the academic qualifications of the specialists generally being higher than their regular counterparts, of course.

Ever since May 2016, the ratio of doctors to patients in Indonesia at the national level has exceeded the government target, there already being 1 doctor per every 2,500 people throughout the country from that time.\(^\text{14}\) This was a huge improvement considering that just three years earlier, in 2013, Indonesia had only 1 doctor for every 3,500 citizens.\(^\text{15}\)

![Pie chart showing number of doctors and dentists in Indonesia as of 26 October 2018](image)

**Number of Doctors & Dentists in Indonesia as of 26 October 2018**

- **Doctors**: 131,378
- **Dentists**: 31,243
- **Specialist Doctors**: 37,239
- **Specialist Dentists**: 3,735

Source: Indonesia Medical Council (KKI) 2018.

As the pie chart in Figure 1 shows, today in 2018, the doctor/patient ratio has improved even further at 131,378: 260,000,000 or 1 doctor for every 1,979 people. Nevertheless, compared to the WHO recommendation of a doctor/patient ratio of 1:600, the condition of the healthcare system in Indonesia is still one of the lowest in the South-East Asia region. Meanwhile, with 2,488 hospitals and 1.21 beds per 1,000 people, the ratios of physicians and dentists per 100,000 people in the country are 16.06 and 4.57, respectively.\(^\text{16}\) Moreover, beyond the bare figures, there is still a huge disparity in terms of the distribution of medical experts across the country. For example, major cities in Java and Sumatra have more doctors in comparison to those in the island of Papua. Today, the main problem in Indonesia in regard to the number of doctors is not so much a lack of numbers, but the imbalance in the distribution of these professionals, let alone the specialists, across the archipelago.

While the number of doctors and dentists has exceeded the government’s targets for Indonesia as a whole, they generally operate in the so-called ‘big cities’. As a comparison, Jakarta, the best province for doctor/patient has a ratio of 1:608, whereas West Sulawesi, the province with the worst ratio, has one doctor taking care of 10,417 residents.

---

\(^{14}\) Hospital Sector Indonesia: Opportunities and Challenges. 3 Mar 2016. Available at: https://www.indonesia-investments.com/business/business-columns/hospital-sector-indonesia-opportunities-and-challenges/item6564?

\(^{15}\) Indonesia faces doctor shortage: official. Global Times. 27 Mar 2013. Available at: http://www.globaltimes.cn/content/771149.shtml

physicians also tend to opt for working in areas that are able to provide large incentives and have adequate facilities to support the medical profession as found in populous cities such as Jakarta, Surabaya, Medan and Makassar.

This challenge is not only due to the population being concentrated on the islands of Java and Sumatra, for in eastern region of the country, standards are difficult to implement due to vast areas, difficult remote terrain, and scattered populations. Furthermore, there are areas that have a high density of population but still experience a lack of doctors. These are categorized as 3T areas, locations at the land borders, islands with sea borders and underdeveloped regions (terluar, terdepan dan tertinggal, respectively, in Indonesian).

Meanwhile, in terms of public healthcare, the Indonesian government has recently introduced the government-supported Universal Health Coverage (UHC) for all citizens, known locally as JKN. The system is administered by the BPJS Kesehatan (BPJS-K) agency and provides all residents with access to basic health coverage. The JKN scheme supports the government commitment to insure the health of the population throughout the nation. Since it was first rolled out in January 2014, JKN has rapidly increased access to and demand for health services, especially for the poor and the near-poor (defined as the bottom 40% of the population by income). By April 2018, it covered about 75% of the population with the goal of reaching 95% by January 2019.  

Responding to the growing healthcare needs of the people will require strong partnership between the government and the private health sector. BPJS-K has contracted with private hospitals and clinics since the initiation of the scheme. As of September 2017, 1,335 private hospitals were offering health services through the scheme, making up 60% of all contracted hospitals. The Indonesian health system relies to a large degree on private manufacturers and importers for essential drugs and medical devices. The significant increase in the population with the ability to pay through a national health insurance scheme is already a business opportunity for some local investors. 

Prior to JKN, civil servants and formal sector employees had government-run insurance schemes that provided them access to health services through a limited set of private providers. JKN brought the poor and near-poor into the market, providing them with a benefit package equal to those previously only offered to the formal sector.

The government of Indonesia has invested heavily in JKN to improve health outcomes and provide financial protection for its citizens. Furthermore, it hoped the scheme would motivate health sector growth with additional employment opportunities and lead to a healthier workforce and a more productive economy. Various policies have also been put in place to incentivise the private health sector market. 

Although there are challenges, the new scheme offers opportunities for investors to play a role in developing affordable healthcare in Indonesia. Some 140 million Indonesians have already enrolled in the new scheme, which increases access to and affordability of healthcare for low-to-middle income patients, through subsidies and the Coordination of Benefits.

---

18 Ibid
19 Ibid
20 Ibid
1.2. Government Policy and Plans for Indonesia’s Healthcare System

1.2.1. Health Expenditure

Indonesia faces the challenge of increasing health expenditures, as nominal health spending has been steadily increasing during 2009-2017 by 222% overall. Although there has been a substantial increase in health spending at the national level, health spending as a proportion of gross domestic product (GDP) remains below average among the low-to-middle-income countries (3.1% of GDP in 2012). The government share of total health expenditure also remains low, at only 39%, whereas private, primarily out-of-pocket (OOP) expenditure is 60%.21

According to Frost and Sullivan’s Indonesia Healthcare Outlook, the Indonesian healthcare sector is expected to be USD 21 billion in 2019 or threefold that in 2014. With the implementation of the National Health Insurance System since 2014, the government faces difficulties in fulfilling the minimum healthcare functions, due to a lack of infrastructure and human resources. In the meantime, the Indonesian private healthcare sector is booming, growing more rapidly than the public healthcare sector.

Decentralisation has triggered an increase in local spending on healthcare, leading to an increased uptake of healthcare services by the poorer half of the population.22 Nevertheless, decentralisation has also weakened the unified national healthcare strategy, including disease surveillance and public health programmes.

Based on Law No. 22 of 1999, which provides for the decentralisation of government functions, and grants more autonomy to regional administrations, the local provincial governments retain considerable autonomy in setting healthcare sector policies. The national government now shares this power with the regional governments of 98 cities and 416 regencies that are spread throughout the 34 provinces in Indonesia.

1.2.3. National Health Insurance Programme (JKN)

In response to the high levels of OOP expenditure and its impact on access to health services by the poor, the Indonesian government has introduced various social insurance programmes for health, such as the Social Safety Net for Healthcare, Askeskin, Jamkesmas and the most recent national health insurance scheme, the Jaminan Kesehatan Nasional (JKN). This programme, which commenced in January 2014, pools contributions from members and the government under a single health insurance implementing agency (BPJS Kesehatan). Population coverage is planned to expand progressively and the aim is to reach universal coverage by 2019, with a comprehensive benefit package and minimal user fees or co-payments. Payments to primary care providers are through capitations, and to hospital providers through DRG episodes of service payments (INA-CBGs). Salaries for public staff continue to be covered through budgetary allocations.

Under Law No. 24 of 2011 on Social Security Management Agency (Badan Penyelenggara Jaminan Sosial–BPJS), the National Health Insurance Programme (Jaminan Kesehatan Nasional – JKN) covers Indonesian citizens and foreigners residing in Indonesia for more than

22 Kruse I, Pradhan M, Sparrow R (2009), Health spending and decentralization in IndonesiaGerman Development Economics Conference.
six months. Providing that by 2019 the programme meets its objective to cover 100% of Indonesians, JKN will be the largest healthcare system in the world.23

Figure 2: Advertisement on JKN Mobile Application.

The JKN programme is administered by the Social Security Management Agency for the Health Sector (BPJS Kesehatan – previously known as PT ASKES Indonesia), which forms one single authority to finance Indonesia’s basic healthcare, collecting contributions from workers, employers and governments. The programme covers comprehensive benefits, ranging from treatment of a sore throat to open-heart surgery and cancer therapies. It is based on a referral system in which a patient must first visit their primary doctor, unlike the previous healthcare service that allowed patients to go directly to the specialist and pay out of their own pocket.

The programme is funded by workers’ contributions and government subsidies for the poor and near poor. Together, employers and employees contribute 5% of the monthly salary for a family of five and they are entitled to a second or first class room and board type of services. Unpaid workers, the unemployed, and the self-employed (e.g. entrepreneurs, freelancers) pay between IDR25,500 and IDR59,500 per person per month to be entitled to a third, second, or first class room and board services.

Furthermore, the introduction of a Coordination of Benefits (COB) scheme, which according to Ministry of Health Regulation No. 71 2014 (Clause 21) allows patients to increase their entitled benefits by obtaining additional health insurance coverage from Indonesia’s universal healthcare scheme, will also provide opportunities for private healthcare providers. The COB scheme will incentivise patients, particularly middle-class Indonesians, to seek higher-value medical services.

As of August 2017, an additional 23 private insurance companies were participating in Coordination of Benefit (CoB) scheme with BPJS-K joining the 51 at the initial implementation of the JKN scheme, or 74 companies now in total.24 Under this system, the customer may elect for extra benefits on top of those provided by BPJS-K through private insurance. Two

---


methods of payment are available in the CoB, whereby the beneficiary pays both the contracted insurance premium and BPJS directly to the insurance company or to each entity separately.

### 1.3. Health Financing

In the public sector, as outlined in National Health Strategic Plan (*Renstra Kesnas*) for 2015–2019, the Ministry of Health highlights the importance of increasing availability of public medicines and medical supplies. The target of this activity is the provision of quality (service and goods including the availability of medical devices), well-distributed and affordable drugs, vaccines and medical supplies at state healthcare facilities.

Budget allocation for the health sector from the state budget (APBN) or local budget (APBD) is not totally submitted according to the mandate of Law No. 36/2009 on Health, which is 5% of APBN and 10% of APBD (outside of salary) that both the central and local government are required to allocate. The budget of the Ministry of Health has shown an increasing trend in recent years. In 2008, the Ministry of Health received an allocation of IDR 18.55 trillion from the State Budget, and the allocation has continued to increase in the years since. In 2009, the budget allocation of Ministry of Health was 20.93 trillion, which escalated to IDR 38.61 trillion in 2013, and rose to IDR 46.459 trillion in 2014.

The increment in 2014 was allocated for the implementation of National Health Insurance, while health intervention funds have been declining. Although the budget allocation has been increased, the proportion is relatively unchanged at around 2.5%.

Health development is funded not only by the Ministry of Health but also by local budget. Law Number 36/2009 on Health stipulates that local governments (province, district, and city) allocate a minimum of 10% of their regional budget (outside of employees’ salary) for health development. However, the allocation only amounts to 9.37% in general, although some provinces were able to allocate 10% to 16% in 2012. Several new provinces can only allocate 2% to 8% of their local budget for health development and this still includes employees’ salary. The situation is better at the district/city level where 221 (42.2%) of districts/cities have allocated in excess of 10% of their local budget for health.

Besides, a specific effort to help the local government of district/city levels in improving the access and equality to public health interventions through the government’s health centre (*Puskesmas*), as the representative of the government, the Ministry of Health initiates another channel of funding known as the Health Operational Assistance fund (BOK).

Indonesian citizens tend to pay most healthcare expenses out of their own pockets. According to the 2017 Indonesia Health Sustainable Development Goal (SDG) profile, out-of-pocket expenditure in Indonesia accounted for 47% of the health expenditure by 2014. Further details reveal an impoverishment level of 0.8%, or approximately 2,000,000 people who are being pushed into poverty because of out-of-pocket health spending. Meanwhile, for catastrophic expenditure on health, 4.4% of people spent more than 10% of their household's

---

26 Ibid
total expenditure on healthcare. Overall, Indonesia’s 2017 total health expenditure was 2.8% of GDP.

Figure 3: Indonesia’s current health expenditure (% of GDP).

Indonesia Health Expenditure (% of GDP) Year 2000-2015

According to WHO, the national health expenditure of Indonesia has generally increased from 2000 to 2015. Exceptions have occurred, including in 2008 when it dropped to only 2.808% (previously in 2007 it was 3.075%) and in 2015 when it fell slightly to 3.347% from 3.440% in the previous year of 2014. Figures relating to this are shown in Table 2.

Table 2: Expenditure on Health in Indonesia Year 2015 (latest available)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current health expenditure (% of GDP)</td>
<td>3.347%</td>
</tr>
<tr>
<td>External health expenditure per capita, PPP (current international $)</td>
<td>2,257</td>
</tr>
<tr>
<td>Domestic general government health expenditure per capita (current USD)</td>
<td>42,689</td>
</tr>
<tr>
<td>Domestic general government health expenditure (% of current health expenditure)</td>
<td>59,249</td>
</tr>
<tr>
<td>Domestic general government health expenditure per capita, PPP (current international $)</td>
<td>141,054</td>
</tr>
<tr>
<td>Out-of-pocket expenditure (% of current health expenditure)</td>
<td>48,302</td>
</tr>
<tr>
<td>Out-of-pocket expenditure per capita, PPP (current international $)</td>
<td>178,373</td>
</tr>
<tr>
<td>Per capita total expenditure on health (2014)§</td>
<td>USD 299</td>
</tr>
</tbody>
</table>


Meanwhile, according to Healthcare Asia Magazine, Indonesia’s healthcare spending is to dramatically increase to $47.1 billion by 2022. This means the national healthcare expenditure will gradually increase as a percentage of GDP, rising from 2.98% in 2017 to 3.29% by 2027. On a per capita basis, healthcare spending will be more than doubled, from USD 114/person in 2017 to USD 269/person by 2027. Private healthcare spending will continue to account for

---

the majority of total healthcare expenditure and will outperform the public sector over our forecast period.\textsuperscript{29}

Private healthcare providers in Indonesia will continue to expand their presence in the market, with opportunities presented by the country’s long-term economic growth potential and low levels of public healthcare infrastructure, according to BMI Research. The long-term rise of household incomes will provide a boom for private hospitals, which generate a substantial amount of their revenues from out-of-pocket payments.\textsuperscript{30}

\textbf{1.4. Structure of Indonesia’s Healthcare System}

Indonesia has 34 provinces; subdivided into 416 regencies and 98 cities (Kabupaten or Kota) at equivalent levels, and each is further divided into districts (Kecamatan). Both public and private hospitals exist throughout the country.

\textbf{1.4.1. Public Hospitals, Private Hospitals, and Clinics}

According to the Indonesian Hospitals Association (Persi), the number of hospitals in Indonesia has been increasing. From 2012 to date there has been an increase of 5.2\% on average and by 2018, there were 2,820 hospitals in various locations throughout the nation.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure4.png}
\caption{Total Number of Hospitals Every Year Since 2012}
\end{figure}

With total of 2,820 units, hospitals in Indonesia consist of those for general public patients and those exclusively patients who are employees of the institution. The growth of the former over the past six years has not been as rapid as those of the latter, the average growth of hospitals for the public being 0.4\%, while those for private were 15.3\%.\textsuperscript{31}

\textsuperscript{29} Indonesia's healthcare spending to balloon to $47.1b by 2022. Healthcare Asia. 20 Apr 2018. Available at: https://healthcareasiamagazine.com/healthcare/news/indonesias-healthcare-spending-balloon-to471b-2022

\textsuperscript{30} Ibid

\textsuperscript{31} Jumlah RS di Indonesia Pertumbuhan RS Publik. Laksono Trisnantoro and Elisabeth Listyani. April 2018. Available at: https://www.persi.or.id/images/2017/litbang/rsindonesia418.pdf
It is worthy of note that the number of private hospitals at an average growth of 7% is more than the growth of government hospitals at only 3%. By 2018, in fact, 65% of the entire healthcare facilities in Indonesia are now privately owned. Nevertheless, the government sector still plays an important role in Indonesia’s healthcare system especially for middle-to-low income population, and it is showing continuous growth.

The number of private hospitals in Indonesia has grown since the implementation of JKN, although they remain concentrated in Java and Sumatra. Investment in for-profit hospital networks since 2014 indicates a desire to benefit from the JKN market. Once the Java and
Sumatra urban and suburban markets are saturated, expansion into rural areas is likely, although a lack of trained doctors and nurses remains a concern and certain policies around facility construction and licensing may act as barriers.  

Both government and private hospitals are classified as either general or specialist hospitals. The public general hospitals are divided into four levels, A to D, depending on their facilities and capabilities in serving patients. In turn, specialist hospitals are divided into three levels, A to C. The classification for private hospital is slightly different.

Classification for Public Hospitals:
1. Level A: provides extensive specialist medical services and extensive sub-specialists.
2. Level B: provides extensive specialist medical services and limited sub-specialists.
3. Level C: provides at least a minimum of four basic specialist medical services (surgical, internal, child and maternity).
4. Level D: provides at least basic medical facilities.

Classification for Private Hospitals:
1. Private General Hospital at Priority level: provides general medical services as well as specialist and sub-specialist care.
2. Private General Hospital at Madya level: provides general services and a minimum of four specialist care services.
3. Private General Hospital at Pratama level: provides only general medical services.

Some public hospitals also deliver private services, such as Yasmin Kencana Clinic at Cipto Mangunkusumo Hospital (RSCM). Patients pay a premium fee in addition to normal hospital fees in order to access services at the clinic. The vast majority of publicly employed healthcare personnel also have second jobs in their own private practices or other private facilities. Doctors, for example, are allowed by law to work at a maximum of three locations.

The Ministry of Health has a plan to construct 14 new national hospitals and 184 regional referral hospitals by 2019. In the private sector, the Siloam hospital group is planning to build 22 hospitals by 2017 with a capacity of 10,000 beds. Following its successful IPO, Mitra Keluarga Karyasehat group is planning to build seven new hospitals within five years.

Due to lucrative perspectives, several large Indonesian business conglomerates have expanded into the hospital sector in recent years (even though their core business was far away from services relating to healthcare) the Lippo Group, Ciputra Group and the Mayapada Group being prime examples. Besides private investors, state-owned Indah Karya also plans to open a hospital in Makassar (South Sulawesi). This company's core business is consulting and construction management. When completed, the hospital will be operated in cooperation with another state-owned firm, PT Pelni that already has experience operating the Pelni hospital in Jakarta.

Figure 7: Logo of the Yasmin Kencana Clinic of the Cipto Mangunkusumo Hospital

---

PT Timah, a state-controlled listed tin manufacturer and exporting company has also expanded into the hospital sector since 2015. Through its subsidiary Rumah Sakit Bakti Timah it owns six hospitals in the Bangka Belitung province. Due to the positive revenue generated in this sector it will invest further in order to equip these hospitals with international standard facilities. Timah targets revenue from its hospital wing to account for 20% of the company’s total revenue this year. Lastly, HK Realtindo, subsidiary of state-owned Hutama Karya is to establish a hospital in Denpasar (Bali).  

<table>
<thead>
<tr>
<th>Company</th>
<th>Hospital Name</th>
<th>Number of Hospitals</th>
<th>New Hospitals Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sejahtera Anugrahjaya</td>
<td>Mayapada Hospital</td>
<td>2 units</td>
<td>50 units</td>
</tr>
<tr>
<td>Sarana Meditama Metropolitan</td>
<td>Omni Hospitals</td>
<td>2 units</td>
<td>2 units</td>
</tr>
<tr>
<td><strong>Siloam International Hospitals</strong></td>
<td><strong>Siloam</strong></td>
<td><strong>20 units</strong></td>
<td><strong>50 units</strong></td>
</tr>
<tr>
<td><strong>Mitra Keluarga Karyawan</strong></td>
<td><strong>Mitra Keluarga</strong></td>
<td><strong>12 units</strong></td>
<td><strong>18 units</strong></td>
</tr>
<tr>
<td>Ciputra Development</td>
<td>Ciputra Hospital</td>
<td>3 units</td>
<td>7 units</td>
</tr>
</tbody>
</table>

Source: Kontan 2016.

Between 2011 and 2014 the number of new hospitals that came online in Indonesia grew by an average of nearly 11% per year, most being developed by the private sector. Although Indonesia’s healthcare sector is developing (including a growing number of internationally accredited hospitals) it is worth noting that the richer segments of Indonesian society still prefer to visit Singapore when they are in need of hospital services.

1.4.2. Healthcare Centres at District Level

The central government strives to have at least one community healthcare centre (puskesmas) headed by a doctor in each district (kecamatan). A puskemas is usually supported by two or three support centres (puskesmas pembantu), headed by nurses. Most of these are equipped with vehicles or motorboats as mobile healthcare centres and provide services to populations in the rural areas.

Currently, all puskesmas have at least one midwife focusing on providing maternal and child healthcare services. The puskesmas and puskesmas pembantu also support villages’ healthcare posts (posyandu), which involve volunteers to improve the local healthcare received by pregnant women, children, and the elderly. By December 2017, there were a total of 9,825 puskesmas throughout Indonesia. West Java with its 1,056 puskesmas units is the province with the most community healthcare centres, while at the other end of the scale,
Bangka Belitung Islands province is the region with the least only having 63 puskesmas units spread across the province.  

II. MARKET STRUCTURE

2.1. Indonesia’s Medical Devices Market

Indonesia's medical device market, which was valued at IDR 10.2 trillion in 2016, is expected to continue its growth in 2018 and beyond even though the rate has been slowing. Before the implementation of JKN, the market nationwide had a low base. It then grew by 12% in 2016 and by more than 16% in 2017 and 2018 (estimated). Growth could reach as high as 18% in 2019. Despite there being no change in the number of medical device companies, competition and growth into new geographic areas is increasing.

According to the latest Business Monitor International (BMI) report, the medical device market in Indonesia is currently valued at USD 747.3 million, and is expected to rise to USD 1,197.2 billion by 2019. This rise is projected at a compound annual growth rate (CAGR) of 14.6%. By individual product area, the CAGRs are expected to range from 20.8% for dental products to 8.9% for consumables. Although the local currency weakened against the US dollar in 2015, it is expected that import performance will pick up on the back of rising demand for medical devices. Almost 95% of the country’s medical device market consists of imports and 90% of medical device registrations were completed by foreign manufacturers. Therefore, the Indonesian market is still an attractive option for the commercialisation of medical devices.

The diversity of products offered has increased in some areas, specifically for diagnostic equipment and consumable devices such as tubes and catheters, which are linked with the

---


37 Medical Device Registration in Indonesia. Andaman Medical. 6 November 2018. Available at: https://www.andamanmed.com/indonesia/
private hospital sector trends. The reimbursement ceiling set by the Indonesia Case Based Groups (INA-CBGs) is affecting industry growth as facilities decide how patients should be treated at lower cost. Key informants advise that increased competition is driving down prices and firms are responding by ensuring that they are listed on the procurement e-catalogue if possible (used for public sector procurements) and by investing in building brand recognition and client loyalty.  

Currently, Indonesia is merely a large market for imported medical products with a market value of about USD 800 million in 2015 and estimated to be USD 1.2 trillion in 2019. The abundance of imported products ensures fierce price competition. This has been going on for years and by 2018, 90% of the Indonesian medical equipment market is being controlled by imported products. This market is dominated by high-tech medical devices such as diagnostic imaging, medical consumable products and implants. The Indonesian medical device market remains one of the fastest growing, with a compounded annual growth rate of 14.6% up to 2019. Therefore, there are profitable opportunities for investors who are willing and able to supply medical and surgical devices to Indonesia. The expansion of the health insurance programme, increased government spending on healthcare and infrastructure development projects will further spearhead growth.

In addition to high-tech products, Indonesia still imports lower middle-class technology medical equipment, even though it can itself produce and even export equipment in this class. According to the Ministry of Trade, made-in-Indonesia medical devices are included in the 10 potential products for export to the European Union, the Ministry reporting that the top 10 imported and exported medical devices are as follows:  

Indonesia's medical devices largest exports:

1. Electronic diagnostic tools
2. Dental health equipment
3. Syringes, with or without needles
4. X-ray spare parts, alpha, beta / gamma
5. Ozone therapy devices, oxygen, aerosols and other inhalers
6. Electronic physical therapy device, massage equipment
7. Tools used / carried / implanted in the body for people with disabilities
8. Orthopaedic / fracture health tool
9. Eye health tools
10. Other medical devices, e.g. catheter equipment, microscope parts, hearing aids, etc.

Indonesia's medical devices largest imports:

1. Electronic instruments and equipment
2. Computed tomography (CT) devices and equipment for surgery and veterinary medicine
3. Ozone therapy devices, oxygen, aerosols and other inhalers
4. Tools for X-ray radiation, beta / gamma
5. CT Scan tools
6. Other electronic diagnoses

---

38 Ibid
40 Ibid
7. Catheterization tools
8. Ultrasonic scanner
9. Intravenous device
10. Other medical devices

Currently, imported devices originate from the USA, European countries (i.e. Germany, the Netherlands, France, Italy, Sweden, Spain, Turkey and Switzerland) and Asian regions such as China, Taiwan, South Korea and Japan. Examples of large manufacturers are GE Healthcare, Pfizer (both from USA), Siemens, Quartz and Kalamed (Germany), Toshiba (Japan), Samsung (Korea), GMM (Italy), Thales (France) and Philips (the Netherlands). Meanwhile, support industry companies such as Schneider-electric (France) focus on selling infrastructure for hospitals. Low production costs have encouraged some international companies to establish production facilities in Indonesia, CIBA Vision, a manufacturer of advanced surgical, pharmaceutical and vision care products; and Smith & Nephew, a global medical technology business being prime examples. Nowadays, besides being consumed domestically, locally produced goods are exported overseas.

In the future, the medical equipment industry in Indonesia is expected to become one of the nation's mainstays as the foundation of the Indonesian economy. In 2018, the government has set a target of 40% market control of medical devices by 2030.\(^{41}\) The government is thus providing support by facilitating various research and development activities to elevate the quality of made-in-Indonesia medical equipment for both local and export markets.

The Ministry of Trade is involved in the implementation of the Regulation of Health Minister No. 86/2013, entitled “The Road Map of Medical Equipment Industry”, in terms of trade activities locally and internationally.\(^{42}\) The tables in Figure 9 show the country's roadmap for the development of medical devices. The Ministry of Health launched a medium-term (eight-year) roadmap divided into three realisation stages.

---

\(^{41}\) Ibid

As these tables show, Indonesia has been producing medium-to-low technology devices since 2015 and will continue to do so through 2019. This will be followed by more technically complex device production such as POCT (point of care testing) within a period of five years up to 2024. Finally, the plans are for Indonesia to be capable of locally producing a full range of medical devices from low tech devices such as the disposables and consumables up to medium tech devices such as radiological units.\textsuperscript{43}

The government realises that medical devices are an important component of healthcare services, whereby their production relies strongly on the technological and economic ability of the country. They are considered to be one of the more valuable trading commodities with a major social impact, thus with the opening of ASEAN free-trade zone in 2010, the capability of producing medical devices locally has become a strategic issue for Indonesia.

There was a 25.3% increase in the development of domestic medical devices in Indonesia as of the start of 2018. Currently there are already 242 companies producing some 294 types of medical devices in the country.\textsuperscript{44} The national health equipment market has a growth rate of up to 12% per year. The Ministry of Health's budget for purchasing medical devices in 2017 was around IDR 12 trillion and increased to IDR 18 trillion in 2018.

The demand for the supply of medical devices continues to increase along with the need for health services, especially in meeting the requirements of the National Health Insurance (JKN) programme. However, the development of the medical equipment industry is expected to satisfy the needs of the Universal Health Coverage (UHC) in 2019.


In the future, the domestic medical equipment industry will be directed through innovative research-based development. There are several research institutions such as BATAN and BPPT, as well as higher education facilities in Indonesia like UGM and ITB that are involved as sources of emergent innovative research in the field of medical devices.

Research-based medical devices require clinical testing stages to meet safety, quality and benefit requirements. To facilitate the clinical trials, the Ministry of Health has issued Regulation of the Minister of Health (Permenkes) No. 63 of 2017 concerning How to Test Good Medical Devices, in which there are explanations of two types of trials, pre-marketing and post-marketing clinical trials.\(^45\)

Such a large population creates certain challenges in providing basic healthcare service, especially in dental care. In addition, the concentration of population in Indonesia’s main cities has created chronic traffic densities dominated by motorcycles, which in turn contributes to a large number of traffic accidents resulting in a high incidence of traumatic bone fractures. These two areas, for example, demonstrate the challenges of providing an adequate supply of medical products in dentistry and orthopaedics, which in turn can provide opportunities for producing local, effective and low-cost biomaterials and medical devices.

### 2.2. Major Players

#### 2.2.1. Key Local Suppliers

As described in the previous section, locally produced Indonesian medical devices are dominated by those of requiring a low level of technology. Currently, imported products still account for around 92% of the total market value because of the inability of domestic companies to yet produce high-tech medical devices. Hospital furniture, which is obviously lower in unit price compared to high technology products, is an example of items produced locally. A patient bed ranging from IDR 6 million to IDR 30 million per unit is much cheaper than 1 CT Scan unit worth IDR 6 billion to IDR 8 billion. For this reason, even though the national medical equipment industry market in 2018 is estimated to reach Rp13.5 trillion (around 10% higher than last year), the national balance of trade, specifically for the medical devices sector will remain, as always, in deficit.

Numbers in the domestic medical industry have continued to increase in recent years. In 2017, there were 215 manufacturers of medical devices operating in the country, for instance, but by 2018, the figure had increased to 226 companies. Facilities for medical equipment production have also increased, more than doubling with 517 new facilities, while adding a further 32 types of medical devices. Currently therefore 719 production facilities are capable of producing as some 294 types of medical devices.\(^46\) According to the Association of Medical Device and Laboratory Company Organisations (Gakeslab), the auction system for the procurement of medical devices in the e-catalogue, which has been implemented by the government since 2013, has opened up greater opportunities for domestic industries than for distributors.

---


Foreign production companies, meanwhile, are required to cooperate with local agents or distributors to bring medical products to the Indonesian market. Efficient and reliable agents and distributors are therefore of great importance. By 2018, the Ministry of Health (Kemenkes) claims the number of domestic medical devices has seen an increase of 27 companies or 25.3%. Ministry of Health data provides that currently there are 242 companies producing 294 different types of medical devices. 47

According to the Ministry of Trade, Indonesian medical equipment products during 2016 totalled USD 121.7 million, down 1.59% from the previous year’s figure of USD 123.6 million. Meanwhile, the realisation of product exports in 2015 earned US $ 138.9 million. 48

These figures illustrate the potential for development of the medical equipment industry. According to the Minister of Health, the development of industrial medical devices will continue to be directed through innovative research-based development. Thus, Indonesian research and higher education institutions will become the source of the emergence of innovative research in the field of medical devices.

Research-based medical devices require clinical testing stages to meet safety, quality and benefit requirements. To facilitate the clinical trials, the Ministry of Health has issued Regulation of the Minister of Health (Permenkes) No. 63 of 2017 concerning How to Test Good Medical Devices, in which there are explanations of two types of trials, pre-marketing and post-marketing clinical trials. 49

Pre-marketing clinical trials test products that do not yet have marketing licenses in Indonesia, including, clinical trials with test products that already have marketing authorisation for indications or intentions of new uses. Post-marketing clinical trials, meanwhile, test products that have gone through pre-marketing clinical trials and already have marketing licenses in Indonesia. These trials aim to obtain data on benefits, security or confirmation of approved performance.

The national health market has been growing at up to 12% per year. The Ministry of Health’s budget for purchasing medical devices in 2017 was around IDR. 12 trillion, but increased to IDR 18 trillion in 2018. The demand for the supply of medical devices increases along with the need for health services, especially in meeting the requirements of the National Health Insurance (JKN) programme. However, the development of the medical equipment industry is expected to satisfy the needs of the Universal Health Coverage (UHC) in 2019. 50

The following section provides an overview of the main distributors or players in the medical products sector in Indonesia:

1. PT Inmed Teknotama Cemerlang
   This company is distributor or sales agent for various brands including GMM, Linea Diretta and Trident (Italy), Arcoma (Sweden), Thales (France), Bex (Turkey), Paxeramed (USA), Kalamed and Quartz (Germany), Acare (Taiwan) and Pro Ray

47 Industri Alat Kesehatan Diklaim Meningkat. Republika. 20 March 2018. Available at: https://www.republika.co.id/berita/nasional/umum/18/03/20/p5uum9368-industri-alat-kesehatan-diklaim-meningkat
49 Industri Alat Kesehatan Diklaim Meningkat. Republika. 20 March 2018. Available at: https://www.republika.co.id/berita/nasional/umum/18/03/20/p5uum9368-industri-alat-kesehatan-diklaim-meningkat
50 Ibid
(Spain). It focuses on selling devices for radiology, operating rooms, dental and critical care purposes.

2. PT Neuro Medika Sejahtera
Since its establishment in 2003, the corporate has been distributing multiple medical products manufactured in Russia. These include the Transcranial Magnetic Simulator (MEP, TMS Solution) that is basically used as a non-drug treatment for depression.

3. PT Pendar Abdhika Paramartha
The company focuses on moving in all aspects of the distribution of well-known domestic and foreign brands of medical equipment. These products include infant incubators, bubble espiro CPAP, mix-safe infant blending resuscitators and syringe pump drives.

4. PT Fortuna Sembada Makmur Medika
This trading company supports hospital medical devices, imports certain product products, and also has its own manufacturer of hospital furniture products under the brand name FARMED.

5. PT Grand Kemindo Pratama
The main device it distributes the hospital market is AiroCide®. It has bioconversion technology that eliminates bacteria, viruses, mould, and mildew and removes harmful VOCs to ensure hospital operating rooms air is properly filtered and protects patients from harmful exposure. The enterprise is a well-known sole agent not only for its pharmaceutical products but also as a stockist and distributor of food additives, feed raw materials and cosmetic active ingredient in the Indonesian eastern region. 51

6. PT Mensa Bina Sukses (MBS)
MBS was established in 1973 and is a distributor and importer of pharmaceutical, consumer and hospital products. It is part of the Mensa Group, which consists of diversified businesses with activities such as generic pharmaceutical manufacturing, import and export of pharmaceutical raw materials, medical supplies and dental equipment manufacturing. MBS provides its distribution services to partners that wish to manufacture and market pharmaceuticals, consumer goods, over-the-counter medicines, and medical devices and diagnostics across Indonesia. It distributes to pharmacists, department stores, supermarkets, hospitals, laboratories, etc. 52

7. PT Transmedic Indonesia
Established in 2003 as the Indonesian branch office of Singapore-headquartered parent company Transmedic Pte Ltd., its core business is the distribution of sophisticated medical technologies in Indonesia’s emerging healthcare industry. Distributed devices include those for surgical, orthopaedics, in-vitro diagnostics, specialty pharmaceuticals/medicine, turnkey solutions, therapeutics, interventional therapy and blood banks. The services it provides, meanwhile, include consultation, product registration, logistics, warehousing and distribution, clinical training, and

51 Grand Kemindo Pratama Official Website. 12 Nov 2018. Available at: https://grandkemindo.com/
52 Mensa Binasukses Website. 13 Nov 2018. Available at: http://www.mbs.co.id/
technical maintenance among others.  

8. PT Surgika Alkesindo
PT Surgika Alkesindo is a medical and consumables supplier, founded in 1995. It consists of three main divisions: Intensive Care Unit (e.g. surgical equipment, hospital beds and furniture), aesthetic (e.g. face and body treatment, skin fillers) and Operating Theatre (e.g. advanced instruments and machines). Over the years, it has become the sole agent for multinational medical instrument manufacturers such as Valleylab (USA), USSC (USA), Atmos (Germany) and Richard Wolf (Germany).  

9. PT Daya Inti Kurnia Abadi (DIKAMED)
Founded in 1999, DIKAMED is a licensed importing company that also manufactures and provides hospital equipment and furniture. The distributed products include those for surgery ICU, ENT & ophthalmology, airway management, orthopaedic, suture, aesthetic and laboratory.

Meanwhile, leading Indonesian manufacturers producing locally but engaged in the export sector, include the following:

1. Indo Health Medical
Indo Health Medical is a supplier and distributor of medical products and equipment that pursues partnerships with both domestic and overseas manufacturers in the healthcare industry. Its products have been exported to countries in Europe, America, Africa, and Asia.

2. PT Andini Sarana
Established in 1987, Andini is a manufacturer and distributor of dental equipment and medical devices. In addition to manufacturing these devices, it also imports healthcare equipment for the domestic market. Andini serves the needs of individuals, the army, government agencies, and dental faculties. Andini also exports to overseas markets.

3. PT Trimitra Gamedindo Interbuana (TRIMED)
TRIMED is a company that specialises in manufacturing blood pressure cuffs, with its headquarters being located in Bandung, Java. TRIMED’s blood pressure cuffs, medical bags, and casings are exported to the United States, Western Europe, and other Asian countries (TGI, 2014).

4. PT Mega Andalan Kalasan (MAK)
Founded in 1988, MAK is an engineering and manufacturing company of hospital furniture, more specifically hospital beds, operating tables, examination tables, stretchers, cabinets, over bed tables, and foldable chair beds. It also produces hospital-billing systems, both hardware and software. MAK exports its products to countries in Asia, the Middle East and Europe.

5. Citra Medika Lestari

---

53 Transmedic Indonesia Website. 10 Nov 2018. Available at: http://www.transmedicgroup.com
54 Surgika Alkesindo Website. 11 Nov 2018. Available at: http://www.surgika.com/
Founded in 2002 in Jakarta, Citra Medika Lestari is an agent of medical products, hospital furniture, rehabilitation products, digital and general radiology, laboratory equipment, and electro-medic equipment, such as dental panoramic systems, surgical C-Arm units, and mammography. Citra Medika Lestari provides large export products for the United States and Europe.

6. PT Sugih Instrumendo Abadi
The company is specialised in manufacturing medium-to-high quality product series of aneroid sphygmomanometer, stethoscope and its replacement parts (cuffs, bladder, bulb, etc). Since 1990, the monthly production capacity of its cuff, bladder and bulb are estimated to be around 200,000 pcs, of which 60% are exported to the US. The export market is divided into two segments namely OEM (USA, Canada, Germany, France, Italy, UK, Japan, Taiwan, Korea, Brazil, Argentina) and its own ABN brand (Australia, Thailand, Malaysia, Singapore, Philippines, Iran, Pakistan, Bangladesh, India, UAE, South Africa).

7. PT Oneject Indonesia
Established in 2004, it is the sole K1 licensee in Indonesia for auto-disable syringes, disposable syringes, and hypodermic needles, the company being a pioneer in Indonesia for the manufacture of auto-disable syringes. Aware of the risk that reuse of standard syringes and needles poses, the company is in alliance with Star Syringe Limited, which holds the patent technology for the K1 AD syringe where if used for a second time the plunger will be break thus rendering the syringe unusable.

8. PT Jayamas Medica Industri
Better known as JMI, the company was established in 2002 in Sidoarjo, East Java, Indonesia and its "One Med" brand is now one of the leading medical device brands in Indonesia. The company started by manufacturing urine bags and ventured into antiseptic and disinfectant products such as rubbing alcohol. Later in 2006, it started producing disposable syringe thanks to the acquisition of a local manufacturer, and this has become one of its core products. Now, the company continuously ventures into new areas such as wound care, nasal cannula, surgical mask, and infusion sets.

9. PT Tesena Inovindo
Established in 1988, the company initially produced infant incubator and phototherapy unit of good quality at affordable prices. Since then, it has become the number one Indonesian brand for infant incubators on the domestic market. Other products manufactured include examination lamps, x-ray film viewers, needle destroyers and ECG 12 leads.

10. PT Trimitra Garmedindo Interbuana (Trimed)
ISO certified, the Bandung-based company was established in 1992 as a manufacturer of blood pressure cuffs. Over the past decade Trimed has produced various kinds of high quality blood pressure cufflinks and various medical bags and equipment for the...
export market, mostly to the United States, Asian countries and some Western European countries. Another product manufactured by the enterprise is the emergency bag.  

11. CV Beauty Kasatama
The company was established in 2003 in Surabaya starting as a small home-based industry producing multi-purpose masks targeting the low-economy class that spent their day in polluted traffic. With the goal of improving national public health, Beauty Kasatama produces economic yet sustainable products that are impactful for their users. Other products include underpads, doctor’s caps, nurse’s caps, surgical gowns, shoe covers.

12. PT Eka Ormed Indonesia
Established in 1999, the company is a manufacturer of various orthopaedic products (i.e. trauma implants, wire, pins & nails, arthroplasty, bone cement, bone graft, locking system, spine, external fixators, craniomaxillofacial, orthopaedic instruments, surgical power tools.) as well as surgical instruments (i.e. scalpel blades, scissors surgery, forceps surgery, clamp surgery, needle holder, retractor surgery). It has the capability of completing the whole range of operations from design to manufacture of precision-engineered implants, as well as orthopaedic and surgical instruments that meet the customer’s exact requirements.

13. PT Arista Lutindo
Arista Lutindo entered the national latex examination glove industry in 1988. The products were first marketed in the United States, and now the company serves over 150 different clients in more than 30 countries around the world. From its humble beginnings the company has grown to now manufactures latex, vinyl, and nitrile products as well as household utility gloves and cotton-lined dipped working gloves. Today the company also serves the demand for disposable face masks with a new product line of disposable three-ply face masks, alcohol swabs and underpads.

2.2.2. International Companies

1. GE Healthcare Indonesia
GE Healthcare has had a presence in Indonesia since 1940 and possesses deep and sound knowledge in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discoveries and biopharmaceutical manufacturing technologies. One of its main areas of focus is to improve healthcare in rural areas of the country. Through partnerships with the Ministries of Health and Education, (academic) research centres, and with healthcare centres, GE Healthcare aims to reduce maternal and infant mortality risk, and provide skill training to general practitioners.

In August 2018, the company signed a partnership with Mayapada Healthcare, which currently owns and operates three hospitals and six clinics in Indonesia and will be

---

59 Trimed Official Website. 13 Nov 2018. Available at: https://www.trimed.co.id/about/
60 Beauty Kasatama Official Website. 15 Nov 2018. Available at: http://beautykasatama.com/about?lang=en
opening six further hospitals across the country by 2020. The deal will offer strategic expertise on effectively building clinical and technical capacity, hospital and workflow design, and lifecycle management for the nation’s new hospitals.

2. Siemens Healthcare / Siemens Healthineers Indonesia
Siemens is a major player in the global healthcare industry, specialising in diagnostic systems, therapeutic technologies and knowledge processing. In Indonesian public and private hospitals, Siemens installs various medical equipment and related systems: computed tomography, magnetic resonance imaging systems, angiographic systems, conventional X-ray units and life support systems.

The Pantai Indah Kapuk Private Hospital uses one of Siemens’ computed tomography scanners, plus it has also distributed its Magnetom Avanto systems (MRI system) and Somatom Sensation Cardiac 64 scanners to the Pluit Gading Hospital in Jakarta. Siemens Remote Service, a remote diagnostics system, is used by multiple hospitals across Indonesia, including Siloam Hospitals, Ramsey International Hospital, and the Gatot Subroto Army Hospital. Partnering with trusted vendors such as Siemens also allows health laboratories such as the Prodia Group to ensure greater accuracy in diagnostics testing. More importantly, it gives them an opportunity to provide the general public with better accessibility to healthcare services.

3. Philips Healthcare
Philips, a diversified health and well-being company, started its business in Indonesia in 1895. Currently, its Indonesian branch headquarters are located in Jakarta, with manufacturing plants in Surabaya and Batam. Philips has circulated its MRI, CT scanner, cardiovascular systems, patient monitoring systems, and defibrillators to various hospitals (both public and private) across Indonesia through multiple distributors. The BPJS has driven up the sales of MRI machines, PET-CT scanners, ultrasonographs, and intensive care unit equipment.

In October 2017, Philips announced a five-year partnership agreement with Siloam Hospitals covering maintenance and operational services for all of Philips’ healthcare technologies installed in Siloam’s 21 locations across Indonesia. The new agreement aims to ensure the high quality of healthcare services that Siloam – Indonesia’s largest healthcare group – is providing to its patients, while at the same time improving operational and cost efficiency.

4. Samsung Electronics Indonesia (SEIN)
The South Korean brand, best known for its consumer electronics, has acquired multiple companies operating in local and international markets. One example is Neuro Logica Corp., which produces CT scanners and other state-of-the-art equipment; and Nexus which makes cardiac-testing systems. Samsung has been growing in this sector, with operations being headed by its subsidiary Samsung Medison. Its outputs

---

relate mostly to medical imaging and diagnostics (e.g. ultrasound technology and X-ray), medical Cloud, and in different mobile solutions for the healthcare industry.

In an effort to increase knowledge and work in the USG equipment field, SEIN conducted a Samsung SONO School programme in Jakarta and Surabaya. Samsung SONO School Jakarta is collaborating with Cipto Mangunkusumo Hospital (RSCM) and the Medical Faculty (FK) of the University of Indonesia, while Samsung SONO School Surabaya collaborates with Dr. Soetomo and FK Airlangga University.  

5. Toshiba / Canon Medical Systems
Globally, Toshiba Medical Systems has changed its name to Canon Medical Systems Corp. This change that completes Toshiba’s transition to Canon Group, began in December 2016.

Canon Medical Systems has introduced a number of “world firsts” and “first-in-Japan” medical systems in cooperation with its customers worldwide. Initially it developed the first indirect X-ray camera produced in Japan and, utilizing its advanced imaging technologies, the company currently produces such equipment as digital X-ray imaging systems and OCT ophthalmic devices.

In Indonesia, the company appointed distributor/supplier company PT Murti Indah Sentosa, which operates in several cores including medical imaging, women’s healthcare and healthcare informatics, radiotherapy, medical fitness, physiotherapy, rehabilitation and neurology, and critical care, emergency and cardiology.

6. Schneider-Electric Indonesia
Although not directly selling medical devices, the French multinational corporation continues to expand its business in Indonesia by bringing its innovation to electrical infrastructure in the healthcare industry. From the emergency room to the executive suite, Schneider Electric enables organisations to improve operational and energy efficiency, as well as patient safety, comfort, and satisfaction. One of the potential markets targeted is hospitals. Health needs, patient surges, and the growth of health facilities are the drivers of business growth. Based on data from the company, there are 40 hospitals that have collaborated to date, most being in Java.

There is a wide variation in the cooperation too. In addition to installing hardware (physical equipment), there is operating software or operational applications. Hospitals need electrical technology to secure their equipment, as they certainly don’t want their high-value medical devices to be damaged because of an electricity problem. In addition, hospitals seek savings from efficient electricity usage to lower consumption levels. This provides a niche market as Schneider Electric pursues business opportunity in Indonesia.  

---


III. BUSINESS OPPORTUNITIES

Ever-growing numbers of its middle class population, major changes in national healthcare and being the fourth most populous nation on the planet are among key indicators that have made Indonesia a highly potential market for investors. Furthermore, according to the World Bank, people aged 65 years and older have reached 14.4 million. The same source, also predicts that there will be a 40% growth of elderly people by 2025, which will place Indonesia in the spotlight of becoming a fast-aging country. This violent rise in the aging population will have an enormous impact on the economy in many industries, especially the medical devices and healthcare sectors.

In 2017, Indonesia nationwide investment in the medical services industry soared seven-fold to IDR 4.7 trillion (USD 343 million) compared to 2016. This rising investment came from new and old local businesses as well as international companies. Meanwhile, the market for the medical equipment industry is estimated to reach IDR 13.5 trillion in 2018, around 10% growth from the previous year. Currently imported products still dominate at around 92% in terms of the industry's total value. These imported medical equipment and devices are mainly geared towards sophisticated medical instruments and infrastructure such as lasers, CT scan and other diagnostic equipment, as such high-tech medical devices as radiotherapy have in the main yet to be produced in Indonesia.

Yet it is not only high-tech equipment, for Indonesia also imports basic medical devices such as tweezers and scissors for eye surgery. Meanwhile, domestic medical device producers mostly manufacture basic items such as surgical gloves, bandages, orthopaedic aids, hospital furniture (e.g. patient beds and drawers), wheelchairs, portable sterilizers, disposables, anaesthesia machines, heart stents, medical needles and surgical threads.

Nevertheless, according to data from the Ministry of Health, the growth of the national medical equipment industry in early 2018 was positive. A total of 27 new companies entered Indonesia’s medical devices industry in 2017, raising the total number of companies active in the sector to 242, which together produced 294 different medical device products. It is also expected that local manufacturers of medical devices will eventually produce the middle-class technology medical and healthcare devices by 2035.

Beginning two years ago, Indonesian firms started manufacturing more sophisticated instruments, namely sphygmomanometer, stethoscopes, urine catheter, infant incubator, nebuliser, dental chair, EKG, blood-grouping reagents, and first-aid boxes and kits. Local medical equipment makers have also begun to engage in mid-range technology with more affordable pricing catering to middle-income groups, such as ultrasound devices and X-ray. These domestic medical equipment products can already enter and supply needs in several types of hospital in Indonesia.

---

67 Medical Devices. Cekindo. 7 Dec 2018. Available at: https://www.cekindo.com/sectors/medical-devices
72 Ibid
In fact, domestically-produced medical devices have met the needs of 48.5% of JKN type-A hospitals (top referral) and 66.6% of JKN type-D hospitals (those serving as transition from puskesmas).\(^73\) As a result, more competition has since been generated to strengthen the middle-class healthcare and medical devices, in terms of volume and value. Giant firms such as Indofarma and Kalbe Farma, have diversified their product portfolio and are no longer just pharmaceutical manufacturers. They have taken the lead and developed medical devices on their own initiative for sale within the country.\(^74\) Several other local corporations can also be seen in the annual IndoHCF (healthcare forum) Innovation Award, showcasing medical device innovations.

As of today, however, medical devices that are produced in Indonesia can be summarised as shown in Table 4 below:

<table>
<thead>
<tr>
<th>Level of Complexity</th>
<th>Medical devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>Surgical gloves, bandages, orthopaedic aids, patient beds, drawers, wheelchairs, portable sterilisers, disposable gowns, anaesthesia machines, heart stents, medical needles and surgical threads.</td>
</tr>
<tr>
<td>Medium</td>
<td>Sphygmomanometer, stethoscopes, urine catheter, infant incubator, nebuliser, dental chair, EKG, blood-grouping reagents, and first-aid boxes and kits.</td>
</tr>
</tbody>
</table>

Source: Multiple Sources 2018.

In brief, healthcare service providers, medical device manufacturers/distributors, pharmaceutical companies, and medical technology firms can tap into a large market while helping Indonesia to improve its healthcare system. Indonesia’s large population and consistent economic growth present excellent opportunities for foreign companies. These opportunities have already attracted various leading foreign medical device companies to the archipelago. As the Indonesian market continues to grow with relatively low competition from local manufacturers, the country will remain heavily reliant on imports for its medical devices. The majority of foreign business players will find it highly beneficial to choose a local distributor to assist with import registration, product licensing and the logistics of importing their devices into the local market.

### 3.1. Medical and Surgical Devices

#### 3.1.1. Dental Equipment

Indonesia is one of the countries in the world with sizeable dental problems. It is estimated

\(^73\) Alkes Nasional Penuhi Kebutuhan 48,5% RS Tipe A dan 66,6% RS Tipe D. Perhimpunan Rumah Sakit Seluruh Indonesia. 20 Mar 2018. Available at: https://www.persi.or.id/78-berita/berita-persi/336-menkes-alkes-nasional-penuhi-kebutuhan-48-5-rs-tipe-a-dan-66-6-rs-tipe-d

that one in five Indonesians have teeth that are damaged. Until a few years ago, people still regarded dental care as being a less-important priority. In general, preventive care and regular check-ups were not that common. In particular, scaling (teeth cleaning), dental fillings and dental implants are still not common among the majority of Indonesians. This is certainly true of orthodontics (the diagnosis, prevention and correction of malocclusion, a condition wherein the teeth are not correctly positioned when the mouth is closed, and includes the use of braces, etc.) which is popular only among a small percentage of the more affluent section of society.

The trend is changing though, especially since the implementation of JKN. Certain coverage by the healthcare system has led to an increased awareness in pursuing dental care especially among the middle to lower classes of the Indonesian population. Such coverage includes once-a-year scaling, emergency orthodontics, extraction of primary teeth, tooth extraction and dental fillings.

With the significant growth in the demand for dental treatment in recent years, PT Royal Abadi Dentalindo is looking to seize upon such an opportunity by building South-East Asia’s largest dental centre in Indonesia. Royal Dental Hospital (RDH), the first private integrated dental and oral Hospital in the country, will provide 52 specialist dentists. With a total of 111 dental seats available, the dental centre will need 200 general and specialist dentists. This will not only encourage more people to go for dental treatment but will also stimulate the demand for dental equipment.

Despite having sufficient numbers of qualified dentists, Indonesia is hindered by the limitations of the supporting devices and tools. With over 30,000 dentists and a growing number of patients, the national demand for dental equipment is expected to be mainly fulfilled through imports.

Notably, since 2007, major competitors for dental equipment have been those originating from France, Germany, Japan, China and the United States. European dental equipment already has an established image for high quality and is considered to be first class. Germans and Italians in particular are widely known for their advanced technology, flexibility, reliability, durability and high quality. On the other hand, Chinese products, which form a large volume-section of total imports, are geared more towards low-end supplies, thus making them more affordable. Popular brands in the market include Anthos, Castellini, EMM, Tau Sterill, Assa (Italy), Jico Max, Belmont, Osada, Morita (Japan), Angel, Smic, Hayasi, Foshin (China), Walser, Durr, Evodar, Vivadent, Otto Leibinger (Germany) and Ugin (France).

However, not all are imported. One notable manufacturer of dental equipment is PT Andini Sarana Indonesia, which assembles dental chair units utilizing imported components such as hand-pieces, hydraulic motors, automatic cup fillers, halogen cold lights, switches and valves. PT Andini Sarana Indonesia products include anaesthetics, pharmaceutical products, orthodontic material, burrs and drills, disinfection and sterilisation materials, instruments,
radiography dental units, polymerisation lamps, mixers, laboratory equipment, handpieces, and ultrasonic scalers.\textsuperscript{79}

Overall, there are more than 1,200 public and private hospitals, 7,413 health centres, 6 state and 10 private dental faculties and more than 11,535 private dentists in Indonesia who serve as the end-users. Nevertheless, an overview of the profession shows that more than 60% of dentists practice in large cities such as Jakarta, Surabaya, Bandung and Medan, plus have their own private dental clinics.\textsuperscript{80}

The distinction between the private and government sector is very important for those marketing dental equipment: Private clinics usually have modern, up-to-date equipment, instruments and dental materials, charge higher fees and have larger budgets available for the purchase of dental equipment. On the other hand, most dental equipment used in government dental faculties is old and in need of replacement.\textsuperscript{81}

The level of purchases per dentist is dependent upon the location of the clinic. Based on inquiries with distributors, a dentist in a large city would on average spend around US$ 1,000 per month for consumables such as dental materials and instruments.\textsuperscript{82}

Around 900 to 1,100 students graduate each year from 15 dental faculties in Indonesia. Newly graduated dentists are obliged to perform government service for three years. Generally, during this service period, they will practice in both government hospitals in the morning and open private practice in the afternoon. The majority of newly graduated dentists would buy less expensive dental units or even used equipment. Local distributors may also assist dentists in selling their used equipment to trade up for more up-to-date and modern equipment at a later stage.\textsuperscript{83}

The Indonesian government imposes no restrictions on the import of dental equipment, although all imported products need to be registered with the Directorate General of Pharmacy and Medical Devices Services of the Ministry of Health. Depending on the type of dental equipment, import duties range between 0% and 10%, with value-added tax (VAT) of 10%.\textsuperscript{84}

3.1.2. Medical Equipment

The outlook for the global medical device market looks promising with chances in both public and private hospitals. The global medical device market is expected to reach an estimated USD 409.5 billion by 2023, and is forecast to grow at a compounded annual rate of 4.5% from 2018 to 2023. The major drivers for the growth of this market are healthcare expenditure, technological development, aging population, and chronic diseases.\textsuperscript{85} Emerging trends that have a direct impact on the dynamics of the medical device industry include the changing medical technology landscape, software as a differentiator in medical devices, and design and manufacturing of patient portable and smaller devices.

\textsuperscript{79} Dental Center Indonesia. Andini Sarana. 9 Dec 2018. Available at: http://dentalindo.org/distributor.aspx?user=76cea627-7ae8-491e-99e2-06534c371136
\textsuperscript{81} Ibid
\textsuperscript{82} Ibid
\textsuperscript{83} Ibid
Likewise, the medical devices market in Indonesia potentially provides rich prospects. According to analysis by Business Monitor International (BMI) Research in Quarter 3 Year 2018, the country is expected to remain one of the fastest growing medical device markets over the next five years, posting double-digit growth. The market will benefit from an uptick in economic growth in 2018, as well as incentives for investing in the medical device industry.

The growth of hospitals in Indonesia’s major cities, plus also in the regions, has resulted in an increase in the need for hospital equipment. That is why the health equipment industry has boosted production capacity to meet demand. Pete Read, CEO of Global Growth Markets (GGM), said the number of private hospitals in Indonesia has grown by 50% per year. According to data obtained from the Ministry of Health website as presented in Figure 10, it is evident that during the 2012-2018 period, the largest growth in hospital numbers have been those in the private sector.

Consequently, local exhibitors, such as D&V Medika, report that the increase in demand for medical equipment, such as electric and manual hospital beds, is at times too large for the suppliers to fulfil. Based on the WHO output unit data, hospital bed demand is expected to increase to tens of thousands by 2020. Therefore, even though the country has been producing some medical furniture including hospital beds, the market will remain heavily dependent on imports due to limited domestic production that comprises mainly consumables.

According to GGM, the rise in the current National Health Service industry is the largest that Indonesia has ever experienced. Moreover, although Indonesia's current dependence on imported medical devices has gradually fallen, it is still relatively high. Based on data on marketing licenses issued by the Ministry of Health (Kemenkes), as of October 2017, only 8%, or 966 of the total 11,895 marketing licenses issued by the Ministry of Health were for domestic medical devices, while almost 92% or 10,893 permits were for imported medical devices.

---

Nevertheless, the market share of local medical products has almost doubled from around 4% to 8% since 2015. These numbers confirm that growth in the medical device industry is higher than that of national industry as a whole, which is only 4.5% per year.

As discussed earlier in this report, domestic industry is currently only able to produce low to medium technological medical devices such as hospital furniture, contact lenses, dental chairs, clinical chemistry reagents, immunology, etc. With the government encouraging national industry to expand the range of items produced, as well as their quality and quantity, prospects are high for investors wishing to consider the business opportunity of setting up manufacturing operations for devices yet to be produced in Indonesia. Table 5 below lists some of the items not yet produced in Indonesia.

### Table 5: Selection of Medical Devices Not Yet Produced in Indonesia

<table>
<thead>
<tr>
<th>Unit</th>
<th>Medical devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delivery Room</td>
<td>Curettage instrument set, minor surgery set, forceps, vacuum extractor, resuscitation set, suction curettage, caesarean section set, anaesthesia machine, infusion pump, infusion warmer, auto-transfusion set, embryotomy set, heating set, childbirth set, speculum, tenaculum, medical gauze, gynaecologist lamp, chirurgical forceps, hymenoplasty, uterine probes, sims uterine curette blunt, ½ kocher, wound curette.</td>
</tr>
<tr>
<td>Intensive-Care Unit</td>
<td>Cardiotocography unit, Halsted Mosquito forceps, hoke chisel, hexagonal screwdriver.</td>
</tr>
<tr>
<td>Neonatal Intensive-Care Unit</td>
<td>Neonatal resuscitation kit, neonatal resuscitation balloon, neonatal laryngoscope, endotracheal tube, neonatal nasogastric tube, electrical mucus suction, neonatal head box.</td>
</tr>
<tr>
<td>Baby Room</td>
<td>Lumbar puncture needle, baby resuscitation set, reflex hammer, tongue depressor, vena section set.</td>
</tr>
<tr>
<td>Haemodialysis and Hyperbaric</td>
<td>Hollow fibre, dialysis needle, disposable apron, bag valve mask, defibrillator, suction set, endotracheal tube.</td>
</tr>
<tr>
<td>Radiology</td>
<td>X-ray cassette and film, film marker, film dryer, computed tomography angiography (CTA), multi-slice computed tomography (CT), fluoroscopy, X-ray mobile, mammography, digital panoramic, dental X-ray, computed radiography (CR), radiation protection equipment.</td>
</tr>
<tr>
<td>Inpatient Room</td>
<td>Resuscitation set, anti-decubitus mattress, vena section set, cardiotocograph, manometer, anatomy forceps, chirurgical forceps, glycerine syringe, irrigator, grain tongs, smart piston, artery clamp, laser therapy.</td>
</tr>
<tr>
<td>Ophthalmology</td>
<td>Dilator, Ishihara book, Anel needle, binocular magnifying glass (3-5 dioptry), HEINE ophthalmoscope, OptiVISOR DA-3 or DA-5, Snellen chart, Schiotz tonometer.</td>
</tr>
<tr>
<td>Obstetrics and Gynaecology</td>
<td>Biopsy forceps, portable steriliser, hysteroscope, disc kidney, uterine probes, oral probes, tampon tongs, tongue depressor, lancet, hammer buck, anoscope, episiotomy scissors, bandage scissors, kocher tang, obstetrical pelvimeter, rubber tourniquet, scalpel, speculum, oxygen mask, Pinard horn, Kelly forceps, ovary clamp, Schroeder tenaculum forceps, straight sponge foster, Mayo scissors CVD, Alligator forceps, intrauterine devices, rectal thermometer, colposcope.</td>
</tr>
</tbody>
</table>

---

87 Bisnis alat kesehatan di Indonesia meningkat. Kontan. 3 Nov 2016. Available at: https://industri.kontan.co.id/news/bisnis-alat-kesehatan-di-indonesia-meningkat

Laboratory | Albuminometer, photometer, haematology analyser, hemocytometer set, lancet, binocular microscope, rotator plate, electrical microhematocrit, urinometer, tourniquet, erythrocyte sedimentation tube.

Emergency Unit | Laryngoscope, defibrillator, resuscitator kit, infusion pump, syringe pump, minor surgery set, pneumatic splint kit.

Operation Room | Endotracheal tube, laryngeal mask airway, nasotracheal intubation, laryngoscope set, anaesthesia machine, defibrillator, anaesthesia ventilator, electro-surgery unit, major surgery instrument set, minimal invasive surgery set, mastectomy set, operating microscope, syringe pump, C-arm, endoscopy, bronchoscopy, gastroscopy, colonoscopy, endoscopy retrograde cholangiopancreatography (ERCP), cryosurgery, Cavitron ultra sonic aspiration (CUSA), harmonic scalpel, Caiman seal and cutting devices, blood gas analyser, electrolyte analyser, CCTV for operation.

Ear, Nose, Throat (ENT) | Tuning fork 512 Hz/1024 Hz/2084 Hz, larynx glass handle, nasopharynx glass handle, larynx glass size 2–6, nasopharynx glass size 2–6, head lamp + adaptor AC/DC, cerumen spoon, bayonet forceps, nose speculum (infant, child, adult P-248), Alligator forceps, ear speculum (small/medium/large), ear syringe, tongue depressor, disc kidney, Thomas suction pump, suction tip.

Dental | Atraumatic Restorative Treatment (ART), dental elevator, assorted diamond burs, polishing burs, tooth excavator, periodontal operation scissors, contra-angle hand piece, straight hand piece, oral glass, periodontal probe, standard scaler, dental tang, scalpel.

Source: EIBN Sector Medical Devices 2016

In 2017, investments in Indonesia's medical service industry rocketed seven-fold to IDR 4.7 trillion (USD 343 million) compared to 2016. The soaring investments came from both new and existing local businesses, as well as international companies. With 27 new firms entering Indonesia’s medical device industry the same year, the total number of firms rose to 242, producing a total of 294 different types of medical equipment and related products. The most recent investments in Indonesia's medical device industry are the IDR 91.5 billion (USD 6.7 million) coronary stent manufacturing plant in Tangerang, Banten; and IDR 16.8 billion (USD 1.2 million) surgical suture factory in Cikarang, West Java. No restrictions exist on the import of medical equipment, with just one exception, as in general the Indonesian government prohibits the import of used equipment. Goods must be registered with the Ministry of Health and are subject to an import tariff of between 0% and 30% plus value added tax of 10%. Moreover, finding a reliable and representative local agent or distributor is strongly recommended.

3.1.3. Laboratory Equipment

Besides the implementation of JKN (National Health Insurance System) by the government and advancements in world technology, expansion of major laboratory chains is also a key factor driving growth in the Indonesian clinical laboratory market, and hence the medical devices market. During the 2012 to 2017 period, the Indonesia healthcare market has generally grown with respect to the nation’s expanding population. Nevertheless, the market opportunity is still huge as some regions are still underserved, especially in the

---

89 Medical Devices. Cekindo. 10 Dec 2018. Available at: https://www.cekindo.com/sectors/medical-devices
90 Ibid
underdeveloped and rural areas.\textsuperscript{91}

Greater Universal Health Coverage (UHC) has increased accessibility to healthcare services, leading to a rising number of the population seeking treatment and thereby increasing laboratory testing. The UHC scheme has increased the demand for basic and specialised testing. Since many public clinical labs are not equipped with the technology for specialised testing, such tests have been outsourced to private independent laboratories.

Private independent laboratories have been supported through an increase in the number of clinical laboratories across the country and by offering test packages, thus capturing demand for modern equipment and technology to perform specialised tests such as microbiology, anatomical pathology and esoteric tests.

The increase in number of healthcare facilities has promoted the growth of referrals and links between hospitals and clinical laboratories. The majority of the private independent laboratories are located in Java and Sumatra. In addition, the laboratory infrastructure model has gained prominence in Indonesia among large class A and B hospitals as more hospitals have upgraded their laboratory capabilities and their hospital class due to JKN.

The following are some of the largest laboratories present throughout Indonesian regions:

1. Kimia Farma
2. Lab Cito
3. Pramita
4. Primadia
5. Prodia

Prodia is recorded as having penetrated 120 cities in almost all of the 34 Indonesian provinces. Listed under PRDA on the Indonesia Stock Exchange (IDX), the company operates 288 outlets and 141 clinical laboratories across the nation. According to an IDX information disclosure dated July 27, Prodia spent IDR 202.08 billion during the first semester of 2018 to develop an outlet network. A further IDR 52.29 billion was used to increase the capability and quality of services, and IDR 80 billion for working capital. The IDR 334.37 billion used through June 30, 2018 was part of the IDR 1.15 trillion resulting from Prodia’s initial public offering (IPO).\textsuperscript{92}

Clinical laboratories are also able to earn substantial profits, as medical check-ups alone can bring a laboratory a turnover of up to IDR 20 million. A growing number of Indonesian companies are providing facilities for each employee to undergo a medical check-up. Primadia is one of the best-known private laboratories in this field, plus like other clinical laboratories, Primadia also offers medical blood testing, urine, heart examination, ultrasonography (USG) and x-rays. Its market segment is the general public, ranging from prospective employees, prospective marriage couples, and candidates for Muslim pilgrimages, to even prospective pilots or sailors. Medical check-ups are reasonably affordable with costs ranging from IDR 20,000 to 50,000 per inspection item or a total of IDR 20,000,000 maximum for a complete

\textsuperscript{91} Indonesia Clinical Laboratory Market is driven by increase demand for specialized tests and health checkups: Ken Research. 10 Dec 2018. Available at: https://view.joomag.com/ken-research-trends-in-indonesia-clinical-laboratory-market/0749892001519284173

\textsuperscript{92} Prodia akan menambah lima hingga tujuh gerai baru. Kontan. 1 Sep 2018. Available at: https://investasi.kontan.co.id/news/prodia-akan-menambah-lima-hingga-tujuh-gerai-baru
Kimia Farma is the largest of all laboratories and is a state-owned enterprise that was established in 1817. The company name was originally NV Chemicalien Handle Rathkamp & Co. After independence, however, Indonesia adopted a policy of nationalising former Dutch companies and in 1958 merged a number of pharmaceutical companies into PNF Bhinneka Kimia Farma. Then, in 1971, company’s name was changed to PT Kimia Farma (Persero), which it retains until this day.

Recently, Kimia Farma has expanded its business to several regions. Through PT Kimia Farma Diagnostika, a subsidiary of PT Kimia Farma Apotek, Kimia Farma simultaneously opened nine clinical laboratories in nine cities. Kimia Farma Clinic Laboratory brings the concept of One Stop Laboratory Examination and Medical Check Up. This service is equipped with a variety of integrated facilities with built-in modern concepts that are aimed to provide comfort and satisfaction to customers.

Kimia Farma has also been digitizing its business to strengthen its foundation and network. The technological upgrade includes providing cloud and network infrastructure, hardware, and integrated application systems. The holding company is developing the Seven Solutions Application to integrate pharmacies, laboratories, clinics, hospitals and BPJS throughout Indonesia so that consumers as users automatically become members in the application.

A record of the patient’s health data will be recorded in a database with medical history, drug and other consumption that can be easily accessed as required for the patient’s health check. It is believed that application will provide customer experience to consumers with smart stock features, omnichannel approach, customer loyalty, big data, clinic integration, referral programmes, and homecare.

Technological advancements coupled with grooming prevalence of lifestyle diseases will propel the market for clinical laboratory services in Indonesia. Given the ever-increasing cost of care, healthcare delivery is moving towards decentralisation. Service delivery from health settings such as mobile clinics, rapid retail clinics, and home settings demands the use of new-age clinical laboratory diagnostics. Effective delivery of healthcare services has created a business and technology convergence between public and private healthcare providers. There has been a growing focus among industry participants on acquiring effective and rapid

---

96 Ibid
3.2. Participation in Establishing Hospital and Clinic Projects

The Indonesia Services Dialogue (ISD) noted that the number of Indonesians seeking medical treatment abroad has increased by almost 100% over the past 10 years. The number rose from 350,000 patients in 2006 to 600,000 patients by end of 2015. It is estimated that the total expenditure for Indonesian patients going abroad totals some USD 1.4 billion each year. According to World Bank data, 1% of Indonesians seek treatment in Malaysia, 2% go to Singapore, while other destinations include China, the USA and European countries.

To curb this and to support the Indonesian Wellness and Healthcare Tourism (IWHT), an initiative is jointly being undertaken by the Ministry of Health and Ministry of Tourism and Creative Economy. Since its launch in 2012, the Indonesian government has been making efforts towards increasing Joint Commission International (JCI) hospital accreditation for both government and private hospitals. In Indonesia there are only 14 private hospitals that have JCI accreditation, four being owned by Awal Bros Hospital as the hospital group with the highest number of JCI accreditations in the country.

The report said that Indonesian private sector businesses are optimistic that by improving their service they can attract around the IDR 100 trillion in foreign exchange lost each year due to the large numbers seeking medical treatment overseas. Mayapada Healthcare, for example, is currently making improvements in technology, human resources in the health sector, and hospital services to attract patients who have been seeking treatment abroad.

The government also targets and regulates to make sure the public health service standards are the same in each region. The state budget for the health sector has thus been increased since 2016 from 2% to 5%, or around IDR 120 trillion/year. Meanwhile, financing contributions from the private sector through the public private partnership (PPP) scheme amount to IDR 250 trillion/year.

According to the Ministry of Health, many regional hospitals are improving their services to become international class hospitals such as those in Denpasar, Palembang, Samarinda and elsewhere. In addition, the government has built 124 modern health centres in the border areas and these are already being used by foreign residents of Malaysia. Such hospitals are built so that people who live in the border regions can obtain health care services without having to go to neighbouring countries. This expansion of private hospitals to the regions welcomes private investment from either domestic or foreign sources. Not only is this initiative economically viable but it also supports the community in these areas in that they no longer need to seek more expensive treatment abroad.

---

101 Ibid
102 Ibid
Based on the new Negative Investment List, the Indonesian government has increased opportunities for foreign investors to invest in the healthcare sector. Under the new regulations, foreign ownership of specialty and sub-specialty hospitals and clinic projects is permitted up to a maximum of 67% (as stated in the regulation section of this report). For investors originating from ASEAN member countries, the ownership cap is 70%, the increased allowance being related to implementation of the ASEAN Economic Community (AEC) since 31 December 2015. The government has expressed its hopes that with the removal of economic and trade barriers between Indonesia and other ASEAN countries, there will be strong growth in investments in the nation’s healthcare sector. The government also hopes that increasing business interest will contribute to raising the quality of life in more remote regions of the country, especially eastern Indonesia. In addition, the new Negative Investment List makes it possible for foreign companies to directly invest and serve the Indonesian market in these areas, thus helping to prevent the exploitation of Indonesian health tourists who are often required to travel to neighbouring countries for their healthcare (Eddymurthy & Suryohadiprojo, 2014).

3.3. Household Healthcare Devices

In 2017, the optimism of Indonesia's online consumers increased slightly from that of the previous year and Indonesia regained its position as the world's third most optimistic country. This is indicated by the Consumer Confidence Index pointer of 121 percentage points (pp), which by November 2018 had increased slightly to 122.7. In general, Consumer Confidence in Indonesia has averaged 98.18 from 2000 through 2018, reaching an all-time high of 128.10 in June 2018 and a record low of just 9.60 in March of 2001. The Nielsen Consumer Confidence Index measures the perception about local job prospects, personal finances and immediate spending intentions. This growth in consumer confidence comes amid the continued growth of the Indonesian economy and the increase in the minimum wage level.\(^1\)\(^\text{103}\)

One effect of increased purchasing power in recent decades has been an increase in the adoption of a rather less healthy diet such as the consumption of high-sugar or multi-processed food. This has led to growth in lifestyle-related illnesses such as diabetes, heart problems, and obesity. These illnesses require different approaches and treatments from the communicable diseases more commonly seen in developing countries. This has meant more patients going abroad and more households buying household healthcare devices such as digital blood pressure meters or digital insulin testers to carry out self-checks at home.

\(^{103}\) Indonesia Consumer Confidence. Trading Economics. 10 Dec 2018. Available at: https://tradingeconomics.com/indonesia/consumer-confidence
IV. REGULATION, STANDARD AND TAXES

4.1. New Digital Signature System for Medical Device Registration

In Indonesia, the approval of the medical device, in vitro diagnostic and household-health device registration licences will soon be issued by the Ministry of Health by electronic form commencing 1 January 2019 (target date for the initial implementation). Previously, licenses were issued in hardcopy format only, with the original signature of the Directorate General of Evaluation of Medical Device Registration and Ministry of Health’s stamp. Among the several advantages of this paperless system are that it saves time, is more secure, is better for the environment as it reduces printing requirements, and can also prevent any unnecessary duplication by individuals.\[104\]

The digital signature will also be encrypted so that it cannot be falsified. The digital signature will be document-specific, with each document having a unique digital signature. In regard to the process, following evaluation of the registration application, the Ministry of Health will notify the registrant to review the draft of the approval license and provide feedback within 24 hours.\[105\]

In the event that a revision is requested by the registrant, the license application will be re-evaluated. The only revisions that can be made at the draft stage include product name, product type, product packaging, manufacturing site name, manufacturing site country of origin, and validity date of the license. Once approved, the Ministry of Health will issue the approval license through the system incorporating the new digital signature. The Ministry of Health has collaborated with the National Cyber and Crypto Agency as the body responsible for the provision of the Certificate Authority by Digital Signature whereby each document is equipped with a QR Code for security and can be verified through the use of a mobile application.\[106\]

4.2. ASEAN Medical Device Directive

The ASEAN Medical Device Directive (AMDD) was signed by the ten member states in 2015, with the main objective of harmonising the medical device regulations and common technical documents, which may aid medical manufacturers in more easily penetrating the ASEAN Medical Device Market.

The aim of reducing technical barriers frequently encountered in the registration of medical devices across ASEAN countries aligns itself with the provisions stated in the ASEAN Trade in Goods Agreement and Declaration of ASEAN Concord II, which ultimately will result in the establishment of ASEAN as a single market and production base.\[107\]

The AMDD includes articles presenting the guidelines on the different aspects of the medical device registration process, more notably, the classification of medical devices with supporting annexes providing the risk classification rules for medical devices other than IVD devices and

\[104\] Indonesia: Implementation of A Digital Signature System for Medical Device Registration. Andaman Medical. 4 Dec 2018. Available at: https://www.andamanmed.com/digital-signature/

\[105\] Ibid

\[106\] Ibid

those for IVD devices, technical documents for medical devices, and post-marketing alert system.

Agreed and signed by the Economic Ministers of the ten ASEAN member states, implementation of the provisions of the AMDD may aid most medical device entities enter the ever-evolving South-East Asian market by reducing costs associated with lengthy market access, advertising, and most importantly, by enhancing regulatory efficiency. Nonetheless, difficulties in their systematic execution are still apparent in most countries – hence, more feasible approaches are being targeted for faster and smoother enactment of said agreement. Table 6 shows AMDD harmonisation in Indonesia as of May 2018.108

Table 6: Progress of ASEAN Medical Device Directive (AMDD) Regulation Integration in Indonesia

<table>
<thead>
<tr>
<th>Country: INDONESIA</th>
<th>World Bank Income Group: LOWER-MIDDLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMDD Specific Regulations</td>
<td>AMDD Harmonized</td>
</tr>
<tr>
<td>Medical Device Definition</td>
<td>Medical Device Defined</td>
</tr>
<tr>
<td></td>
<td>IVD Defined</td>
</tr>
<tr>
<td>Medical Device Classification</td>
<td>Classification</td>
</tr>
<tr>
<td></td>
<td>Categories</td>
</tr>
<tr>
<td></td>
<td>Classification Rules</td>
</tr>
<tr>
<td></td>
<td>Classification Rules Details</td>
</tr>
<tr>
<td>Essential Principles</td>
<td>Essential Principles</td>
</tr>
<tr>
<td>Conformity Assessment</td>
<td>CAB</td>
</tr>
<tr>
<td></td>
<td>Pre-marketing/procedure</td>
</tr>
</tbody>
</table>

Source: Qualtech Consulting Corporation 2018

Note that although most countries are already putting the Risk Classes A, B, C and D into effect (in accordance with the AMDD), the different devices that fall under each class still vary from one country to another. Take contact lenses for example, which are eligible for inclusion

108 Ibid
in Class C in Indonesia, but this does not preclude their eligibility as a Class B medical device as they are in Malaysia and Singapore.\textsuperscript{109}

In short, AMDD regulation in Indonesia is has not yet been fully implemented, although most of the elements are already in place. In addition to this, HALAL certification for medical equipment is currently undergone on a voluntary basis through Indonesia Muslim Scholars (Ulema) Council (\textit{MUI}). On implementation of the Halal Law, however, certification will be mandatory and will be issued by BPJPH. The regulation of products under this law will be done in stages with affected medical devices falling in Year 1-5 (from passage) estimated to be between October 2019 and 2024. Currently, it is not clear when the law will be implemented, or the impact it will have on registration costs and timelines.\textsuperscript{110}

4.3. Indonesian Medical Equipment and Household Supplies Regulations

Nationwide, the government of Indonesia has fully supported the improvement of the local manufacture of medical devices. This covers the procurement standard for public hospitals owned by government only by enforcing them to place the made-in-Indonesia medical equipment above imported products where possible. Meanwhile for private hospitals, the Ministry of Health continues to intensify the promotion of the use of domestic medical devices.\textsuperscript{111}

These regulations include the Presidential Instruction (\textit{Inpres}) No. 6 of 2016 concerning the Acceleration of the Development of the Pharmaceutical Industry and Medical Devices. Prioritising domestic products is also reinforced in the Minister of Industry Domestic Component Level (\textit{TKDN}) Regulation. The Minister of Health is correspondingly in line with these regulations as described through the Minister of Health Regulation No. 17 of 2017 concerning the Action Plan for the Development of the Pharmaceutical Industry and Medical Devices. The guideline mandates the development of the pharmaceutical and medical devices industry independently. This includes optimisation of capacity, increasing new investment, and strengthening the market.\textsuperscript{112}

With the purpose of protecting the public from inappropriate medical equipment and supplies, the government through the Ministry of Health issued a series of regulations. On 29 December 2017, the Minister of Health issued Regulation No. 62 of 2017 on Marketing Authorisation for Medical Devices, In Vitro Diagnostic (IVD) Medical Devices and Household Medical Supplies, which became effective on its date of issue. This regulation evokes MOH Regulation No. 1190/MENKES/PER/VIII/2010 on Marketing Authorisation for Medical Devices and Household Medical Supplies (\textit{Peralatan Kesehatan Rumah Tangga or PKRT}). Regulation 62 was issued to harmonise Indonesian regulations with ASEAN and global level regulations that govern medical devices and PKRT. Some notable new features are provided under this Regulation 62 including those in respect of locally manufactured products and of imported products.

\textsuperscript{109} Ibid
\textsuperscript{112} Ibid
For locally manufactured products, manufacturers carrying out assembly processes may apply for and obtain marketing authorisation, provided they meet the following criteria:

a. Components that have a major function in the finished product are locally manufactured.
b. There must be more locally sourced components than imported (or foreign) components.
c. The manufacturing process must mostly be carried out locally.

For imported products, companies that carry out assembly and repackaging must fulfil the following criteria:

a. Hold a production certificate
b. Hold a power of attorney from the foreign manufacturer

Regulation 62 clearly stipulates that for now all applications for marketing authorisation for imported medical devices, IVDs and PKRTs must also be accompanied by a Certificate of Free Sales (CFS) issued by the authorised authorities in the healthcare sector in the originating country of the product.

If the authorities from the country of origin of the medical devices, IVDs and PKRTs cannot issue a CFS, the applicant must seek a CFS from a government authority that handles healthcare matters in another country that can issue a CFS. If the products are not registered in their country of origin, then the CFS can be issued by another authority in the originating country.

The CFS must at least contain the following information:

a. Trade name or trademark
b. Type of product
c. Name and address of foreign manufacturer
d. Validity period (of the CFS)

This new regulation also provides a limitation on the registration of similar products. Local manufacturers are prohibited from registering imported products that are similar in nature to those they already produce. Based on this regulation, if imported medical devices, IVDs or PKRTs are of the same type as but have different specifications from those produced by a local manufacturer, these products can be registered by the local manufacturers affiliated with the foreign manufacturer of the products.

Another recently published regulation is Regulation Number 60 Year 2017 on Import Supervision of Medical Devices, In Vitro Diagnostic Medical Device and Household Medical Supplies, respectively.

4.3.1 Registration

Medical devices have been regulated in Indonesia since 1991. A company can import medical devices if it holds a distribution license (IPAK) issued by the Ministry of Health. It is important to note that there can be only one legal importer and distributor for a particular product in Indonesia. Filing with the Ministry, meanwhile, is carried out online via its own e-registration system, which makes the process simple and efficient. The registration licence for the import
of medical devices has a validity period of two to five years at a maximum. Spare parts and accessories, meanwhile, do not require registration.\footnote{Indonesia Medical Device Registration. Morula HealthTech. 11 Dec 2018. Available at: https://morulaa.com/indonesia-medical-device-registration-moh-ri/}

The regulation on medical devices in Indonesia by the Ministry of Health is divided into two main parts, Part 1: Pre-Market Control, which includes manufacturer license, distribution license and registration license; and Part 2: Post-Market Control (integrated with AMDD guidelines), which includes sampling, monitoring, vigilance and advertisement.\footnote{Ibid}

As discussed in a previous section, different categories of medical devices in Indonesia have been synchronised with AMDD as shown in Table 7:

<table>
<thead>
<tr>
<th>Class</th>
<th>Category</th>
<th>Risk Level</th>
<th>Examples</th>
<th>Level of Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>A</td>
<td>Low risk</td>
<td>Cholesterol, uric acid test system; surgical instrument; bandage, surgical camera; electric operating table, patient scales.</td>
<td>General Control</td>
</tr>
<tr>
<td>II</td>
<td>B</td>
<td>Low-Moderate risk</td>
<td>Pregnancy self-testing, electric hospital bed, surgical lamp, surgical mask.</td>
<td>Special Control</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Moderate-High risk</td>
<td>Blood glucose self-testing, ECG, X-ray unit, syringe, condoms, contact lens.</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>D</td>
<td>High risk</td>
<td>HIV blood donor screening, stent, intraocular lens (IOL), defibrillator, pacemaker.</td>
<td>Pre-Market Approval</td>
</tr>
</tbody>
</table>

Source: Morulaa HealthTech 2018

Those aspiring to trade medical devices in Indonesia must first obtain several licenses before applying for registration with the Ministry of Health. These licences include Permanent Business License (\textit{Izin Usaha}), Registration License (ASEAN Common Submission Dossier Template), Manufacturer License and Medical Devices Distributor License (\textit{Izin Penyalur Alat Kesehatan}).

Foreign entities are not allowed to conduct any kind of business in Indonesia unless they establish a limited company with direct foreign investment (\textit{PT PMA}) or alternatively, they must...
look for a local distributor. A permanent business license issued by the Investment Coordinating Board (BKPM) is one of the fundamentals required to operate a PT PMA.

In addition, entrepreneurs intending to conduct business in this sector should consult the Negative Investment List, which standardises the maximum percentage of foreign ownership of a company permitted in various industries. This matter will be further discussed in a later section.

Indonesia has joined the ASEAN common registration policy, which means those seeking registration in the medical devices sector are obliged to submit a wide range of information to the multinational community regulatory authorities. Common Submission Dossier Template (CSDT) provides a platform for registration with the Health Sciences Authority (HSA) that is in charge of the aforementioned agenda.

The manufacturing license confirms that a product meets both Indonesian and international standards in terms of quality, effectiveness and safety. This is an international certification regulated by ISO 13485 issued on 1 March 2016 by International Organisation for Standardisation that deals with medical devices, quality management systems and requirements for regulatory purpose.115

Special distribution permission (IPAK) is issued according to the usage of the medical device in question. The previously discussed manufacturing license must first be acquired before applying for the IPAK. A device can fall into one of the following categories:

- a. Electromedical with radiation
- b. Electromedical without radiation
- c. Non-electromedical sterile
- d. Non-electromedical non-sterile
- e. In vitro diagnostic products

All the licenses mentioned above need to be obtained, as well as other necessary documents (declaration of conformity, manufacturer information, device description, device labelling, design verification and validation, etc.) before the Ministry of Health will approve the application for registration. However, there are a couple of further steps to be undertaken before signing the first business deal.

### 4.3.2. Electronic System to Control Medical Devices

Since 2013, the Ministry of Health has been implementing e-purchasing for any procurement process of medical devices and pharmaceuticals by public sectors. All medical devices were included in an e-catalogue to streamline the process. The aim of this system is to increase transparency and to ease the transaction process in the healthcare sector.

By the start of 2016, there were at least 7,595 types of medical device across 23 categories in the catalogue [https://e-katalog.lkpp.go.id/](https://e-katalog.lkpp.go.id/), all of which are searchable based on the brand, name of the device, and 25 other specifications, including warranty and number of products sold, together with the provision of distribution costs to the regencies. Institutions can directly purchase products included in the e-catalogue without a tender, while the procurement of products not included in the catalogue requires a tender. The requirements for medical devices to be included in the system are as follows:

---

1. Distribution by a licensed distributor (IPAK);
2. License number for distribution;
3. Transparency in pricing, specification, and after-sales service.

For further surveillance, the Ministry of Health also applies e-Watch, an electronic reporting system in case of problems arising from the use of the medical devices in healthcare facilities. Although Indonesian Corruption Watch supports the system in regard to its transparency, some small company members of Gakeslab still express their disagreement, believing that these measures are not entirely sufficient to ensure good practice. The main argument is that the user can purchase directly from the manufacturer without a tender, eliminating the need for dealing with intermediaries, which are deemed to be in the best position to assess the quality standard of products.

Online registration for medical devices and household healthcare devices is available on https://regalkes.depkes.go.id. All registered medical devices and household healthcare devices can be checked on http://infoalkes.depkes.go.id/.

4.3.3. Product Certification SNI ISO 13485:2016

This standard guideline revises the previously used SNI ISO 13485: 2003, and ISO 13485: 2003/Cor.1: 2009, IDT. Effectively used as reference for quality, this standard establishes requirements for a quality management system that can be used by an organisation involved in one or more stages of the lifecycle of health equipment. This includes design and development, production, storage and distribution, installation, service and final decommissioning and disposal of medical equipment, plus design and development, or provision of related activities (e.g. technical support). The requirements in this standard can also be used by suppliers or other external parties that provide products (e.g. raw materials, components, sub-assemblies, medical devices, sterilisation services, calibration services, distribution services, maintenance services) to the organisation. Suppliers or external parties may voluntarily choose to meet these standard requirements or can be required by several contracts with clients to adjust. 116

4.3.4. Investment: the Negative List

To achieve self-sufficiency in various sectors, the government is protective towards these sectors. While some are entirely closed to foreign investment, others are subject to limited foreign ownership. The 2014 Negative Investment List, issued under Presidential Regulation No. 39 of 2014, has increased the permitted level of foreign ownership for many segments in the healthcare sector. Among others, it removed the 200-bed minimum requirement for specialist/sub-specialist hospital services under the previous list.

It is worthwhile noting, however, that the new list has still maintained the foreign ownership limitation in the specialist/sub-specialist hospital services category at 67% throughout Indonesia. The same limit also applies to specialist medical clinics and dental clinics. For healthcare, the maximum foreign shareholding is 49%. Nevertheless, in regard to the present list, it’s fair to say that the healthcare sector is far more open today than it was in previous years.

Exceptions do exist, however, for ASEAN Economic Community countries. In certain situations, the Indonesian Negative List provides lesser foreign investment restrictions for

116 Detail SNI. Badan Standardisasi Nasional. 12 Dec 2018. Available at: http://sispk.bsn.go.id/SNI/DetailSNI/11670
investors from ASEAN member states. For example, ASEAN investors are permitted to hold up to 70% ownership in specialist/sub-specialist hospital services in eastern Indonesia (except for the urban regions of Makassar and Manado). Nursing services are open for up to 51% foreign ownership from ASEAN health support services. Business and management consultancy services and/or hospital management services, health support services, and testing of maintenance and repair calibration of medical devices are all open for foreign ownership with the maximum set at 67%, 67%, and 49% respectively.

The latest Negative Investment List, as part of the tenth economic policy package, opened up 29 business sectors to 100% foreign ownership. Five sectors are within the healthcare domain: the pharmaceutical raw material industry, business and management consulting services or hospital management services, and three healthcare support services (medical equipment rental, laboratory clinics and medical check-up clinics). Meanwhile, the limitation on foreign stake in acupuncture services remains at 49% and other healthcare support services have had their limitation upped to 67%.

Table 8: Sectors in Healthcare Industry Open to 100% Foreign Investment

<table>
<thead>
<tr>
<th>No.</th>
<th>Business Sector</th>
<th>Industry</th>
<th>Old Regulation</th>
<th>New Regulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pharmaceutical raw materials</td>
<td>Healthcare</td>
<td>85%</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Business and management consulting services or hospital management services</td>
<td>Healthcare</td>
<td>67%</td>
<td>100%</td>
</tr>
<tr>
<td>3</td>
<td>Healthcare support services (medical equipment rental)</td>
<td>Healthcare</td>
<td>49%</td>
<td>100%</td>
</tr>
<tr>
<td>4</td>
<td>Healthcare support services (laboratory clinic)</td>
<td>Healthcare</td>
<td>67%</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>Healthcare support services (medical check-up clinic)</td>
<td>Healthcare</td>
<td>67%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Global Business Guide Indonesia 2016

The vital signs for Indonesia’s healthcare sector remain strong in terms of future demand, particularly from the growing middle and upper-middle class in accessing private healthcare. A key challenge that remains in realising its full potential, however, remains with the availability of qualified human resources ranging from surgeons and nurses to biomedical engineers. The ASEAN Economic Community should open up borders for the recruitment of health workers from outside of Indonesia to meet the shortfall; however, it should also encourage movement of qualified workers to go abroad in search of better pay and career opportunities. The

healthcare sector in Indonesia will, therefore, need to start making investments not only in facilities but longer term in generating a skilled pool of qualified medical professionals, particularly outside of Java, who have the incentive to stay put rather than seek employment overseas.

4.3.5. Government Procurement

Indonesia’s public procurement rules have been reformed with the goal of improving procedures and accommodating the increased fiscal authority of the regional governments. The most recent rules affect the procurement of goods and services by the national and regional governments, state-owned legal entities (universities) and state/region-owned enterprises that are financed wholly or partly from state or regional budget.

In general, it is mandatory to have a competitive public tender, except for limited cases. Public procurement is regulated by Presidential Regulation No. 4 of 2015 and Presidential Instruction No. 1 of 2015 on Procurement of Goods and Services, which is an update of Presidential Regulation No. 54 of 2010. According to the latest amendment, it is obligatory for ministries or government institutions to conduct e-procurement for all goods/services that are already listed in the e-catalogue.

The regulation also limits foreign companies from bidding on projects valued at less than IDR 100 billion (USD 8.5 million) for construction, IDR 20 billion (USD 1.7 million) for goods, and less than IDR 10 billion (USD 850,000) for consultancy services. The government grants these special preferences to encourage domestic sourcing and to maximise the use of local content in government procurement, while encouraging the use of domestic goods and services to the maximum extent feasible.

Procurement plans are included in each budgetary year. The proposed annual state budget for the following year is submitted to the parliament in mid-August, for approval by the end of December. This budget is, in principle, valid for January-December of the following year.

The planning period for the national state and regional budgets is a good source of insight into public procurement projects to be launched in the following year. Because Indonesia’s official communication flow can sometimes prove complex to penetrate without a considerable degree of familiarity, finding a local partner is the best step towards accessing this information.

All public tenders are published, but there are often listed specifications that require the knowledge and support of a local company to maximise the chances of success in a given procurement process. In any case, in order to apply for public tenders, a company must register at the government’s procurements portal INAPROC (website: https://inaproc.lkpp.go.id/v3/daftar_lpse) to be eligible to submit applications for any on-going selection procedures.

After the submission of digital documents and completion of the registration form, there is a verification process of the original documents. The company is considered to be a verified tender applicant once the information and documentation has been verified and certified, which can be done on-site at any government institution. The applicant may then bid in any tender related to its field. It is useful to note that most tenders require the company to have been established for a minimum of two years. Again, having an established local partner is advisable in this respect.
4.3.6. Local Content

Based on Presidential Regulation No. 70 of 2012 on government procurement and on Presidential Instruction No. 2 of 2009 regarding the use of local content in government procurement, government procurement decisions are often based on a preference for products with local content, in order to encourage domestic sourcing. Government departments, institutions and corporations are instructed to use domestic goods and services wherever possible and to use foreign components only when necessary.

The same applies to the appointment of foreign contractors as subcontractors by local companies. The Ministry of Health is aiming to increase local content in medical disposables and hospital furniture by up to 30%. The amount of local content in a product is based on a self-assessment conducted by the company and its calculation being based on the origin of input costs. For the provision of goods, these costs include material, labour, and indirect manufacturing costs. For services, it includes materials, labour, and equipment used in the provision of services. It should be noted that the calculation excludes profits, company overheads, and VAT.

In an effort is to spur national productivity and industrial competitiveness, the government is determined to encourage further optimisation of the Domestic Component Level (TKDN) for strategic projects funded by the state and in domestic manufacturing production. Several sectors prioritised in implementing TKDN include, among others, the medical equipment industry. The strategic step that will be taken is by requiring utilisation of medical equipment that has been produced by the domestic industry. Selected products must be able to meet aspects of quality and quantity.

According to the Ministry of Industry, the potential of the national medical devices manufacturing industry is currently some IDR 6.2 trillion, and when the TKDN policy is fully implemented, it is believed this will have the opportunity of rising to around IDR 10.8 trillion. In order to further increase the TKDN value of medical devices, the Ministry of Industry is encouraging structural development and growing the component and electro-medical industries. At present, the percentage TKDN value of national medical devices is, on average, just 6%.

4.3. Taxes and Duties

Indonesian import duties for medical equipment vary, rising up to 30%. In general, electro-medical and other technical equipment have a 5% tariff, while medical supplies and plastics are assessed at higher rates (20% to 30%). All imported medical equipment is subject to 10% value added tax. For more information on import regulations, please visit the Directorate General of Customs & Excise website (https://beacukai.go.id)

119 Pemerintah akan Harmonisasi Regulasi TKDN. Republika Ekonomi. 29 Nov 2018. Available at: https://republika.co.id/berita/ekonomi/korporasi/18/11/29/pixjv9370-pemerintah-akan-harmonisasi-regulasi-tkdn
120 Ibid
121 Ibid
V. CHALLENGES

With a population of some 265 million, the medical equipment industry in Indonesia has a strong outlook. However, there are a number of challenges that industry players must face such as a rather long licensing chain, tight price competition, compliance to local content regulations and tricky infrastructure and human resources availability.

The medical industry is part of the health industry, which is predicted to double in the next six years. In 2018 alone, the health industry had a valuation of USD 60.6 billion with a compounded annual growth rate of around 14.9% during period of 2012 to 2018. Meanwhile, the Association of Indonesian Medical Devices & Laboratories (Gakeslab) said that medical devices in the country are predicted to surpass IDR 17 trillion in 2018 with an annual growth rate of 10%.123

The major challenge to face, however, is that around 92% of medical products circulating in health facilities, both private and government-owned, are imported. This results from the urgent nature of medical needs. Moreover, with the enactment of National Health Insurance, the demand for medical equipment, especially disposable equipment, is rapidly increasing.

The government has encouraged domestic industries to produce medical equipment through Presidential Instruction No. 6 of 2016 concerning the Acceleration of the Development of Pharmaceutical and Medical Devices Industry. Through this Inpres, the government hopes that by 2030 at least 25% of medical products will be domestic brands.

According to Gakeslab, only 10 of its total 411 members have built production factories in order to work in the medical industry.124 Currently, domestically produced medical devices are largely confined to wheelchairs, patient beds, coronary stents, anaesthesia machines, needles, and surgical threads. The challenge for the government, and indeed investors, is there are still many medical products that could be cultivated domestically. These products are non-high technology products such as scissors and IV tubes in particular. Yet problems still exist. For example, the infusion hose uses plastic seeds, the raw materials of which must be of medical grade. To date, however, no chemical company in Indonesia produces this level of quality, thus it is obtained through import.

Besides requiring capital and investment, the medical equipment industry is very much bound by many regulations. There are also difficulties in sourcing raw materials (let alone the technology) to produce medical devices, as well as obtaining the necessary licencing to build a manufacturing plant. One report said that to bring a medical equipment factory into operation, it can take as long as 24 to 36 months from its construction to production.125

The pricing of products might also be a challenge for some new entrants to the sector. While the Indonesian medical industry has a preference for high-quality imported products from Europe, USA, and Japan, the pricing of the product is important. Chinese and Korean products can directly satisfy specific segments as they provide a satisfactory price alongside reasonable quality. Favourable payment terms also play a role in the decision, and inflexibility in terms of sales, payment schedules and length of contract can raise a barrier for Indonesian buyers.

124 Ibid
125 Ibid
Then there is compliance in fulfilling local content (TKDN) regulation. Even though, currently a number of domestic medical device manufacturers have been able to provide TKDN of up to 53%, some organisations from the medical devices industry still feel this government policy is rather ineffective.\textsuperscript{126} The fact a number of domestic medical device manufacturers are the main suppliers of global brand products means that the business players have adhered to the provisions. Apart from the absence of technical provisions such as government regulations, failure of the TKDN provisions on medical devices can also be laid at the failure of Presidential Instruction No. RI. 2/2009 to legislate sanctions for those government institutions that do not implement TKDN.

Finally, a lack of infrastructure is hindering Indonesia’s development in some areas. The lack of a stable and continuous electricity supply can raise problems in the healthcare sector, for instance, in that vaccines requiring constant refrigeration might be damaged as a result of power outages. An initial shortage of medical personnel for the introduction of new technology is another potential problem. This could well mean a lack of qualified professionals who can operate, maintain and calibrate the devices, thus meaning that training operators and their related staff may be an essential part of the company’s after-sales service.

\textsuperscript{126} Aturan Kandungan Lokal Alkes Tidak Berjalan. Industri Bisnis. 28 Juni 2015. Available at: http://industri.bisnis.com/read/20150628/257/448059/aturan-kandungan-lokal-alkes-tidak-berjalan
Conclusion

In brief, Indonesia presents excellent opportunities for investors who wish to develop a manufacturing capability for medical equipment within the country. Government incentives are continuously improved to attract investors to this prospective market. The large size of domestic consumers in the country also remains a lucrative attraction for exporters and suppliers to market the products throughout the vast archipelago.

No restrictions exist on the import of medical equipment other than importers must consider the local content (TKDN) requirement for government procurement. There is, however, one exception in that the Indonesian government, in general, prohibits the import of used equipment. The distribution of nearly all medical equipment and supplies requires a license from the Indonesian Ministry of Health, which needs to be obtained before the goods are imported. At the same time, the local distributor must possess a license as a distributor. For tender offers, compliance to Indonesian and AMDD standardisation procedures is essential.

In the main, domestic manufacturers only produce basic hospital equipment, such as hospital beds, wheelchairs and disposable supplies. Overseas companies still account for a great majority of total supplies, including the more sophisticated medical and surgical instruments and infrastructure. The most valuable business opportunities in the medical devices market lie in surgical equipment, diagnostics, and medical imaging equipment. Lucrative sub-markets exist in regard to dental equipment, meanwhile, such as devices for scaling and polishing, bleaching, and for orthodontics. There are prospects in providing laboratory equipment too, which include tests kits for hepatitis and infectious diseases, and for instruments related to clinical chemistry, haematology, and immunology.

Regardless of the varied requirements that different opportunities demand, investors are advised to invest time and effort in finding a good and reliable local partner. Serving the huge Indonesian market requires cooperating with Indonesian investors, agent and/or distributor who have valuable knowledge to offer in terms of negotiating with local clients. Additionally, talking to individual practitioners requires a different approach than business-to-business channels, as would be the case in dealing with a large private hospital. Attending conferences and events is a good strategy for meeting equipment importers, agents and distributors.

In conclusion, healthcare is indeed a priority in Indonesia’s national development agenda and thus we believe the service providers, medical device manufacturers/distributors, pharmaceutical companies, and medical technology firms have a solid opportunity to tap a large market while assisting the nation to improve its healthcare system. Indonesia’s large population and consistent economic growth present excellent opportunities for foreign companies. As the Indonesian market continues to grow with little competition from local manufacturers, for now the country will remain heavily reliant on imports to meet the demands for equipment in its fast-growing healthcare sector.
Relevant Contacts and Trade Fairs

A. Relevant Contacts

GAKESLAB
Association of the Indonesian Medical Devices and Laboratory Companies (Indonesian: Gabungan Perusahaan Alat-Alat Kesehatan dan Laboratorium)
Address : Jl.Rawamangun Muka Raya No. 1-A, Pulogadung – Jakarta 13220
Website : http://gakeslabindonesia.id/id/
Phone & Email : +62 21 4722213; admin@gakeslabindonesia.id

LPMLKI
Institute for Indonesian Health Laboratory Quality Assurance (Indonesian: Lembaga Pemantapan Mutu Laboratorium Kesehatan Indonesia).
Address : Jl. Pegambiran 42A, Rawamangun – Jakarta 13220
Website : http://lpmlki-online.com/
Phone & Email : +62 21-47884688, 4705268; secretariat.lpmlki@gmail.com
Fax : +62 21-47864953

ASPAKI (Part of GAKESLAB)
Indonesian Medical Devices Producers Association (Indonesian: Asosiasi Produsen Alat Kesehatan Indonesia)
Address : Jl. Surabaya No. 54 – Jakarta 10310 - Indonesia
Website : http://www.aspaki.or.id/home
Phone & Email : +62 21-3101825; sekretariat@aspaki.or.id
Fax : +62 21-3101926

Ministry of Finance – Directorate General of Customs and Excise
Address : Jl. Ahmad Yani (bypass) Rawamangun – Jakarta 13230
Website : http://beacukai.go.id; https://eservice.insw.go.id/ (import regulations)
Email : info@customs.go.id

Ministry of Health
Address : Gedung Dr. Adhyatma Jl. HR Rasuna Said Blok X-5 Kav. 4-9 Jakarta 12950
Website : http://kemkes.go.id/

Directorate General of Pharmacy and Medical Devices Services
Website : http://farmalkes.kemkes.go.id/
Phone & Email : +62 21-5213604; ie.farmalkes@kemkes.go.id

Integrated Service Unit
Phone & Email : +62 21-52907416; upt@depkes.go.id

National Standardisation Agency of Indonesia
Address : Gedung 1 BPPT Jl. M.H. Thamrin No.8 Kebon Sirih, Jakarta 10340
Website : http://bsn.go.id/
Phone & Email : +62 21-3927422; bsn@bsn.go.id
Fax : +62 21-3927527
B. Trade Fairs

Indonesian International Hospital Expo 2018

(For updates on 2019 Event please check the website regularly)

Website: www.hospital-expo.com

Venue: Jakarta Convention Centre, Senayan

Date/ Time: 17–20 October 2018 / 09:00–17:00

The 14\textsuperscript{th} IHA Congress, the 12\textsuperscript{th} Annual Seminar Patient Safety & the 31\textsuperscript{st} Hospital Expo 2018 events were focused on medical science. The goal of the event was to provide information concerning the development of health equipment to the public, mainly to the health community, and to build the exhibition as a meeting point between the producers and consumers.

Expected visitors were 20,000-50,000 with more than 500 exhibitors coming from various product areas including medical equipment and technologies, clinical laboratory, pharmaceutical, medicine, analysis, control and diagnostic equipment, surgical block, preventive medicine equipment, rehabilitation and help for the disabled, medical aid products, first aid, hospital engineering, furnishing, kitchen and laundry management, equipment for disinfectant, sterilising and cleaning, waste treatment and disposal, cold storage, cars and ambulance, hospital furniture, telecommunication and data transmission, hospital engineering, banking, books and publishing, education and career, insurance companies which are related to the field of hospitalisation.

![Figure 13: The 2018 Hospital- Expo Event Poster](source: Hospital-Expo Official Website 2018.)
Health Development and Domestic Medical Equipment Exhibition (HKN Expo) 2018

(For updates on 2019 Event please check the website regularly)

Website: http://farmalkes.kemkes.go.id

Venue: Indonesia Convention Exhibition (ICE), BSD City, Tangerang Selatan

Date/Time: 8-10 November 2018 / 08:00–16:00

It is considered important that the public know about the increase in production of medical devices, which is the reason why the Indonesian Ministry of Health (Kemenkes) holds this annual event commemorating national health day. This exhibition was the fourth time it has been held since 2015 and was attended by more than 150 participants consisting of the medical equipment industry, Household health supplies (PKRT), pharmaceuticals, traditional medicines, cosmetics and food and beverages.

Participants also included the Ministry of Health as well as other ministries and institutions, other agencies such as the provincial health office, professional organisations, hospitals, BUMNs, and various associations exhibiting products including innovation in the health sector, as well as various health screening services for free.

![The 2018 HKN Expo Poster](source.png)

**Figure 14: The 2018 HKN Expo Poster**

Indo Health Care Expo 2019
Website: https://indohealthcareexpo.com
Venue: Jakarta International Expo (JIExpo) Kemayoran
Date/Time: 4 – 6 April 2019 / 10:00–18:00
The 11th International Exhibition on Medical & Hospital Equipment, Pharmaceutical, Health Care Products & Services. Featuring medical and hospital equipment, pharmaceutical & medicine products (generic & branded), herbal medicine, dental supplies and equipment, healthcare products, disposables, rehabilitation equipment, miscellaneous medical items; materials for medical equipment, and hospital-related supplies, the event is to be held in conjunction with INDO BEAUTY EXPO 2019. The exhibition is open to trade and business visitors only, admission being free by invitation and business card registration.

Figure 15: Indo Health Care Event Logo
The Indonesia Dental Exhibition & Conference 2019

Website: [https://indonesiadentalexpo.com/](https://indonesiadentalexpo.com/)

Venue: Jakarta Convention Centre, Senayan

Date/Time: 13 – 15 September 2019 / 09:00-18:00

The Indonesia Dental Exhibition & Conference is a comprehensive dental event jointly-staged by Koelnmesse, Indonesian Dental Association (PDGI) and PT. Traya Eksibisi Internasional.

Taking place every two years, it focuses strongly on the needs of the Indonesian dental professional with its three-day scientific conference featuring localised educational content. In addition, the three-day exhibition will bring together leading brands and key opinion leaders in this emerging market.

IDEC 2017 was staged over the weekend of 15-17 September 2017. For its first ever edition, the event welcomed 229 brands and businesses to the exhibition with 81% being from overseas. The strong presence of international companies at IDEC made this dental exhibition and conference unique in the calendar of Indonesian dental events. IDEC will be returning for its second edition in 2019 and trying to replicate its previous success.

![The Premier Dental Exhibition & Conference for Indonesian Market](image)

*Figure 16: Indonesia Dental Expo 2019 Event Banner*

*Source: Indonesia Dental Expo Official Website 2018.*
Lab Indonesia 2020
Website: [http://www.lab indo.com/](http://www.lab indo.com/)
Venue: Jakarta Convention Centre, Senayan
Date: 7 – 9 April 2020

Held alternately with Lab Asia (six successful editions since 2007), Lab Indonesia (four successful editions since 2010) is one of the leading laboratory exhibitions in South-East Asia with strong focus on scientific instruments and laboratory equipment for various industries, including medical & pharmaceutical, F&B, oil & gas, bioscience and nano-science. The sixth edition of the bi-annual event will be held in 2020 at Jakarta Convention Centre, Senayan.

Jointly organised by ECMI ITE Asia Sdn Bhd and PT. ITE Exhibitions Indonesia, Lab Indonesia aims to bring together scientific and analytical laboratory industry elites such as professional chemists, biochemists, microbiologists, analysts, research and development researchers, lab managers and quality control and assurance managers at a networking and resourceful platform. The exposition provides a strategic avenue for exhibitors from around the world to showcase their latest products, advanced equipment and new technologies.

The last Lab Indonesia was held during 4-6 April 2018, and welcomed increasing numbers of exhibitors, country pavilions and exhibition size to facilitate the industry with a greater exploration experience in latest innovative technologies.

Figure 17: Poster of 2020 Lab Indonesia Exhibition

Source: Lab Indonesia Official Website 2018.
## Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AEC</td>
<td>ASEAN Economic Community</td>
</tr>
<tr>
<td>AMDD</td>
<td>ASEAN Medical Devices Directive</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of South-East Asian Nations</td>
</tr>
<tr>
<td>ASKES</td>
<td>Asuransi Kesehatan – Health Insurance Security Agency</td>
</tr>
<tr>
<td>BPJS</td>
<td><em>Badan Penyelenggara Jaminan Sosial</em> – Healthcare and Worker Social Security Agency</td>
</tr>
<tr>
<td>BSN</td>
<td>Badan Standarisasi Nasional - National Standardisation Agency</td>
</tr>
<tr>
<td>CSDT</td>
<td>Common Submission Dossier Template</td>
</tr>
<tr>
<td>CT/CAT Scan</td>
<td>Computerised Tomography/ Computerised Axial Tomography Scan</td>
</tr>
<tr>
<td>DIKAMED</td>
<td>Daya Inti Kurnia Abadi</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>GHTF</td>
<td>Global Harmonisation Task Force</td>
</tr>
<tr>
<td>IPAK</td>
<td><em>Izin Pengedar Alat Kesehatan</em> – Medical Devices Distributor Licence</td>
</tr>
<tr>
<td>IVD</td>
<td>In Vitro Diagnostic</td>
</tr>
<tr>
<td>IWHT</td>
<td>Indonesian Wellness and Healthcare Tourism</td>
</tr>
<tr>
<td>JKN</td>
<td><em>Jaminan Kesehatan Nasional</em> – National Health Insurance</td>
</tr>
<tr>
<td>LSMMAK</td>
<td><em>Lembaga Sistem Manajemen Mutu Alat Kesehatan</em> – Medical Devices Quality Management System Agency</td>
</tr>
<tr>
<td>MAK</td>
<td>Mega Andalan Kalasan</td>
</tr>
<tr>
<td>MBS</td>
<td>Mensa Bina Sukses</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MRI</td>
<td>Magnetic Resonance Imaging</td>
</tr>
<tr>
<td>NHSP</td>
<td>National Health Strategic Plan</td>
</tr>
<tr>
<td>PT</td>
<td><em>Perusahaan Terbatas</em> – Limited Liability Company</td>
</tr>
<tr>
<td>Puskesmas</td>
<td>Pusat Kesehatan Masyarakat – Community Health Centre</td>
</tr>
<tr>
<td>SDG</td>
<td>Sustainable Development Growth</td>
</tr>
<tr>
<td>SNI</td>
<td>Standar Nasional Indonesia – Indonesian National Standard</td>
</tr>
<tr>
<td>TKDN</td>
<td><em>Tingkat Kandungan Dalam Negeri</em> - Local Content Level</td>
</tr>
<tr>
<td>TRIMED</td>
<td>Trimitra Garmedindo Interbuana</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Emergency Fund</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
</tbody>
</table>
References


Indonesia-Medical Equipment. Export.Gov. 8 January 2017. Available at: https://www.export.gov/article?id=Indonesia-Medical-Equipment


Hospital Sector Indonesia: Opportunities and Challenges. 3 Mar 2016. Available at: https://www.indonesia-investments.com/business/business-columns/hospital-sector-indonesia-opportunities-and-challenges/item6564?

Indonesia faces doctor shortage: official. Global Times. 27 Mar 2013. Available at: http://www.globaltimes.cn/content/771149.shtml


Kruse I, Pradhan M, Sparrow R (2009), Health spending and decentralization in IndonesiaGerman Development Economics Conference


Hospital Sector Indonesia: Opportunities and Challenges. 3 March 2016. Available at: https://www.indonesia-investments.com/id/business/business-columns/hospital-sector-indonesia-opportunities-and-challenges/item6564?


Medical Device Registration in Indonesia. Andaman Medical. 6 November 2018. Available at: https://www.andamanmed.com/indonesia/


Medical Devices. Cekindo. 10 Dec 2018. Available at: https://www.cekindo.com/sectors/medical-devices

Indonesia Clinical Laboratory Market is driven by increase demand for specialized tests and health checkups: Ken Research. 10 Dec 2018. Available at: https://view.joomag.com/ken-research-trends-in-indonesia-clinical-laboratory-market/0749892001519284173

Prodia akan menambah lima hingga tujuh gerai baru. Kontan. 1 Sep 2018. Available at: https://investasi.kontan.co.id/news/prodia-akan-menambah-lima-hingga-tujuh-gerai-baru


Indonesia Consumer Confidence. Trading Economics. 10 Dec 2018. Available at: https://tradingeconomics.com/indonesia/consumer-confidence

Indonesia: Implementation of A Digital Signature System for Medical Device Registration. Andaman Medical. 4 Dec 2018. Available at: https://www.andamanmed.com/digital-signature/


Indonesia Medical Device Registration. Morula HealthTech. 11 Dec 2018. Available at: https://morulaa.com/indonesia-medical-device-registration-moh-ri/


Detail SNI. Badan Standardisasi Nasional. 12 Dec 2018. Available at: http://sispk.bsn.go.id/SNI/DetailSNI/11670


Pemerintah akan Harmonisasi Regulasi TKDN. Republika Ekonomi. 29 Nov 2018. Available at: https://republika.co.id/berita/ekonomi/korporasi/18/11/29/pixjv9370-pemerintah-akan-harmonisasi-regulasi-tkdn


About EIBN

The EIBN is a partnership project between six European bilateral chambers of commerce in Indonesia (BritCham, IBAI, Dancham, EKONID, EuroCham, IFCCI) and two counterparts in Europe (EUROCHAMBRES, CCI Barcelona). The EIBN’s aim is to promote Indonesia and ASEAN as high potential trade and investment destinations among companies from all EU28 member states – especially SMEs – and support them in their endeavour to explore the full market potential in Indonesia. The project was initiated and co-founded by the EU.
Disclaimer

This publication has been produced with the financial assistance of the European Union. The contents of this document are the sole responsibility of the EIBN and can under no circumstances be regarded as reflecting the position of the European Union.

The figures in this report correspond to EIBN’s best estimate of the value of the corresponding variables. Although due care was taken in the preparation of this publication, EIBN makes no warranty as to its accuracy or completeness and is not to be deemed responsible for any errors or loss resulting from its use. Other organisations quoted herein are in no way responsible for the content of the report or the consequences of its use.