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**DIGITAL HEALTHCARE**  
Indonesia Service Dialogue

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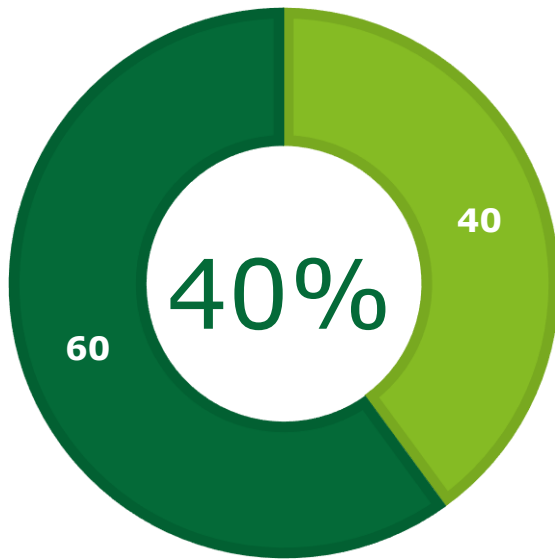
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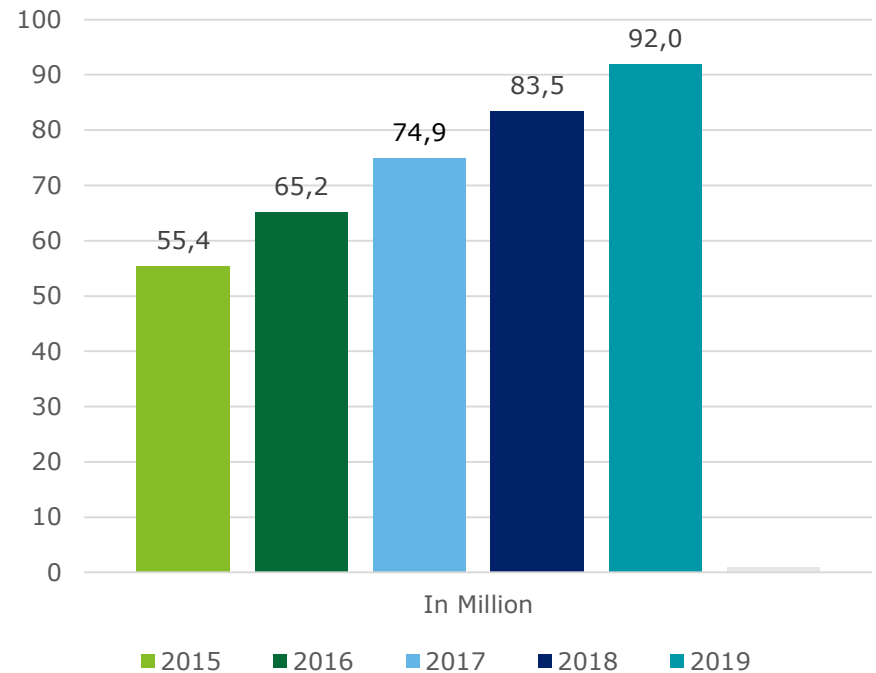
# Overview of Indonesia as An Emerging Market

## Internet and Smartphone Penetration



■ Internet Users ■ Non-Users

**The Association of Internet Service Providers in Indonesia (APJII) announced that Internet penetration in Indonesia has now reached 40 percent of the population, or approximately around 100 million Internet users**



eMarketer added that the number of smartphone users in Indonesia is expected to rise from 55 million in 2015 to 92 million in 2019 on the back of Indonesia's economic growth, the availability of affordable 4G smartphones on the Indonesian market and further development of Indonesia's 4G network.

**Currently Indonesia is already the third-largest smartphone market in the Asia-Pacific region (after China and India)**

# Overview of Indonesia as An Emerging Market

## Internet Users and Usage



**Total  
Population**

**259.1**

Million

Urbanisation : 55%



**Active  
Internet  
Users**

**88.1**

Million

Penetration : 34%



**Most Using  
For :  
Social Media**

**79**

Million

Penetration : 30%



**Active Mobile  
Social Media  
Users**

**66**

Million

Penetration : 25%

*Source : UN, US Census Bureau, APJII, Facebook, GSMA Intelligence*

# Overview of Indonesia as An Emerging Market

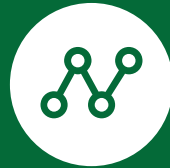
## Indonesia's Healthcare Sector Characteristics



### **Growing and Ageing Population**

Emerging markets will account for 80% of the world's elderly by 2050

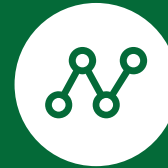
Some emerging markets should expect a significant increase in the portion of their population aged 65 between 2015 – 2050



### **Increased Prevalence of Chronic and Non-Communicable Diseases**

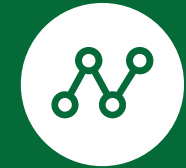
68% of total deaths globally occur due to chronic and NCD diseases; emerging markets account for 75% of these deaths

Almost 200 million of the world's 370 million people diagnosed with diabetes live in Asia



### **Healthcare Infrastructure is Concentrated in Urban Areas**

Over 50% of the emerging market in Asia-Pacific live in rural areas, while healthcare infrastructure is concentrated in urban areas



### **Growing Middle Class and Rising**

2/3 of the global middle class will be in Asia Pacific by 2030 and people will be spending more in healthcare

# Overview of Indonesia as An Emerging Market

## Regulations Related To Interactive Healthcare



### **Long-Range Medical Consultation (Telemedicine) is Prohibited**

Advertising and/or publication of health care by a health-care facility through the Internet may not be used as a long-range medical consultation (telemedicine)

### **Wearable and mHealth are not Considered as Medical Devices**

Medical devices are the instruments, apparatuses, machines and/or implants that do not contain drugs used to prevent, diagnose, cure and relieve diseases, treat sick people, recover health of human beings, and/or form the structure and correct the body function



# A Need for Healthcare Innovations

## More Advanced Patient's Needs in 2020

Patients in 2020, according to our prediction, will become more like consumers. **They demand to be better informed about their genetic profile, the diseases they have and might have, and the availability of healthcare.**

Expectations of healthcare and better outcomes for themselves and loved ones are at their highest, related to their increased incomes.

Patients are true consumers, they understand that they have options and use information and data about themselves and providers to get the best treatment at a time, place and cost convenient to them.

Most patients in developed countries now have access to their own electronic health records, and decide who to share it with.

**It's about time until our people becoming that way, so government and healthcare providers in Indonesia have to be ready soon.**



# Future of Healthcare Sector : Digital Healthcare

## Wearables and mHealth Applications

Technology is becoming more pervasive



Top pharma companies have **63% more** unique apps in 2014 vs. 2013



Consumers and providers integrate information from multiple devices seamlessly to create a comprehensive view of the individual.

Cloud computing will take off- HP's Mobile Health (mHealth) monitoring solution links health monitoring devices with cloud computing. Regular updates of patient's health performance are transmitted wireless to healthcare providers thereby enabling them to detect diseases early and treat them effectively.

**Better access to the internet will drive this model. In fact Indonesia had 76m internet users with 66m using social media, in recent years which sets platform for the service in the near future**



# Future of Healthcare Sector : Digital Healthcare

## The Era of Digitised Medicine

The home is where much of the medical care takes place. It is no longer confined to clinicians in the clinic or hospital. The ubiquity of digital communication means that many doctor-patient contacts are now virtual and deliver care to the patient in their home.

This model will enable us to expand healthcare delivery to rural population and to address each country's most urgent health needs.

**In order to make this come true, Indonesia's government have to improve our public universal healthcare systems in general and use public-private as well as transnational partnerships for necessary investments in infrastructure. Private investors in will play key role in providing healthcare infrastructure and health delivery.**



# Overview of Indonesia as An Emerging Market

## Healthcare Players Using Integrated Healthcare Solution

Source : Documentation of Austrade

Mitra Keluarga Hospital, A Leading Indonesian Hospital, enables operational excellence with SAP HANA® and healthcare solutions from PT Abyor International and T-Systems in June 2016



In May 2016, a subsidiary of Fullerton Health acquired Medilum Indonesia. Together, the companies' combined services represent Indonesia's only complete, integrated corporate healthcare solutions company and the country's third-largest managed care provider by market share

Eka Hospital and Mayo Clinic announced collaboration in 2011 to provide real-time video telemedicine services to patients in Jakarta by connecting them to over 3,000 physicians working with Mayo Clinic in the United States



In July 2014, IBM announced that Bundamedik Healthcare System has selected its big data and analytics technology to transform the administration and financial management systems of RSIA Bunda Jakarta, a hospital in Bundamedik's network

# Overview of Indonesia as An Emerging Market

## TMT Players Entering Digital Healthcare Market

Source : Documentation of Austrade

Some ICT players have begun to develop information technology solutions for improving health services in Indonesia. This includes **Telkom with its eHealth Solutions:** hospital (HIS), eclinic, and eClaim; Lintas arta with its HealthLink, Online Appointment, Reminder Hospital, and Telemedicine.



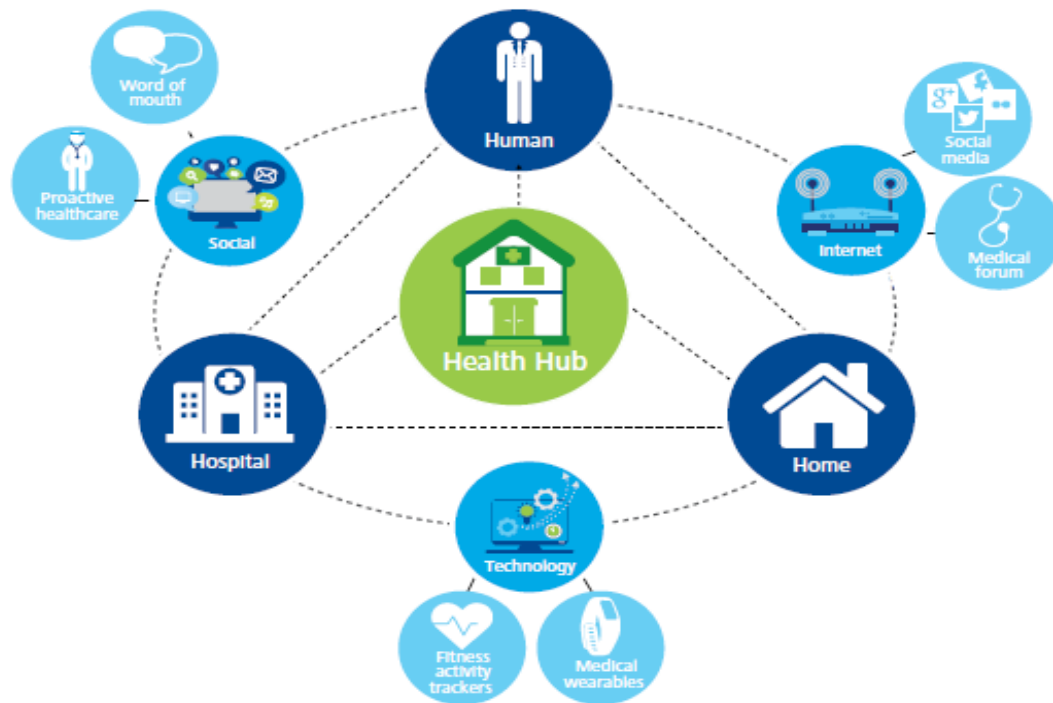
**Fujitsu** commenced marketing the introduction of its healthcare solutions in Indonesia in October 2014. The integrated upstream-downstream system will be targeted at Indonesia hospitals, with the solution including Hospital Information System, Telemedicine (health information exchange), application optimization services for mobile devices, client and server virtualisation, bio-stimulation, and cloud based electronic medical record (EMR) systems.

# Future of Healthcare Sector : Digital Healthcare

## The Health Hub

The healthcare model of tomorrow is envisioned to be an open healthcare ecosystem. Known as the Health Hub, it is consumer-centric, leverages technologies to overcome the barriers of access, and provides support for long-term, chronic disease treatment seamlessly from across three pillars – Human, Home and Hospital – and beyond.

# The Health Hub



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