Healthcare and Life Sciences Predictions 2020
A bold future?
Southeast Asia Supplement
Our Deloitte UK colleagues provided us with a set of provocative predictions on the future of Healthcare and the Life Sciences industries in general. We wondered how these predictions may play out in Southeast Asia where economic development and healthcare maturity levels still highly vary.

This report is entirely different. It is deliberately challenging about the future world, perhaps even provocative. Our work draws on observations of trends, events and small but bold steps that – if accelerated through to the year 2020 and beyond – paint a picture of a world that is very different from today. Executive teams across healthcare and life sciences organisations often ask – “do you have a paper setting out the challenges of our future market place? We have a strategy working session next month and need some insights, challenge and a little provocation.” This document aims to fulfil that requirement.

Our research and shared common experience uncover that most of the global predictions will hold for this part of the world as well, no matter how different the starting positions of the countries are. How far the healthcare systems will change and shift will depend, though, on investment and resource availability and to a large extent on the political will to implement, for instance, the ASEAN 2020 Health Vision. The economic growth path of these countries will further determine the extent to which citizens can afford healthcare and their consumer behaviours in general.

Southeast Asia will be one of the few remaining growth regions for Multinational Life Sciences companies and it can be expected that business model changes and roll outs of infrastructure projects will accelerate. Further extended healthcare and improved health insurance systems in the these countries will drive growth of domestic Life Sciences companies that will seriously compete with MNCs. Market access, payments, and compliance will continue to be topics very high on everyone’s agenda. Our recent research among Chief Financial Officers in Southeast Asia uncovered that the priority market within the next three years will be Indonesia.

Overall these predictions are not a pipe dream in this region of the world as supported by cases and evidence. It is exciting to see how governments and the private sector embrace new technologies and invent new business models with the intent to leapfrog some development steps which offers a vast array of opportunities for investment and growth to the private sector.

We hope this supplement will add to the rich dialogue which the global predictions has initiated.

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Average life expectancy in ASEAN countries in 2012 was **73 years**, an increase of **8 years** since 1990: **Singapore** achieves the highest with **83**, and **Laos** and **Myanmar** the lowest with **66**. **Cambodia** experienced the largest increase by **18 years to 77**.

**Health expenditure** per capita in **ASEAN** is around **4%** of **GDP** - as compared to the OCED average of **9.5%** - despite the ASEAN health expenditure increase by **250%** between 1998 and 2010 to over USD 68bn.

Growth in average annual **healthcare** spending between 2014-18 is expected to be around **11%** of GDP in **ASEAN** - but with highly varied rates among the countries: **Vietnam** with the highest at **6.6%** and **Myanmar** with the lowest at **1.8%**. The combined public and private healthcare spending greatly varies: In 2012 average spend of **USD443 in ASEAN** with **USD2,426 in Singapore** and **USD20 in Myanmar**. Government Healthcare spend in **ASEAN 6.7%** of GDP compared to OECS average **17.2%**.

**Generics** will take a larger share of pharma-emerging markets medicine spend and will increase from **58%** in 2012 to **63%** in 2017 compared to global increase from **27%** (USD261bn) to **36%** (USD421bn) during that period.

Meet the over 65s in ASEAN – by 2020 they will number 46 million – **7.8% of ASEAN Population** – one in every 3:

**6 Singaporeans**
6 **Indonesians**
6 **Laotians**

Compared to one in every 4 Japanese and 10 Chinese

Nurture the under 14-year-olds – **26%** of ASEAN’s population in 2013 with ongoing decline through 2020. Lowest rate in **Singapore (16%)**, highest rates in **Philippines and Laos (34, 35%)**.

**Chronic diseases** due to sedentary lifestyles are becoming more prevalent as ASEAN nations get richer: **Type 2 diabetes**, and **obesity** - over **190mil** with diabetes in Asia Pacific - however pain, antibiotics and hypertension still dominate developing markets.

**Cardiovascular diseases** are predominant concern in **ASIA** because of **tobacco, hypertension and obesity** - Asia Pacific will have greatest number of **NCD** (non-communicable diseases) deaths among all global regions by 2020.

**Communicable diseases**, like TB/HIV, are still highly prevalent in ASEAN countries - **Cambodia 400 cases** in every **100,000 population** in 2013 compared to **ASEAN average of 190**.

Inexpensive medical devices, such as **prosthetic** and **diagnostic tools** are researched and manufactured in the region for the region.

Sources:
1. Life expectancy data, WHO http://apps.who.int/gho/data/node.main.688?lang=eng
5. Footnote: Health in the Post-2015 Development Agenda for Asia and the Pacific, ADB September 2013
Ten Predictions for 2020
Provocative insights – how will they apply in Southeast Asia

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Health consumers in 2020
Informed and demanding patients are now partners in their own healthcare - not so fast in Southeast Asia

Prediction for Southeast Asia / ASEAN
The promoted ASEAN-wide universal health systems will be adopted by all member countries. National health insurances will become a key driver to change the behaviour of the population towards health consumers. The degree of population turning into health consumers will vary among ASEAN countries. The national health insurances will be used as public sector tool to provide and improve public health education as envisioned in the ASEAN 2020 Health Agenda for healthy lifestyles.

The 2020 world

• Major markets, like Indonesia, succeed in rolling out their national health insurance program and cover the entire Indonesian population, thanks to the sustained 14%+ year-over-year growth of hospitals.
• The medical instruments market has taken off and it about to mature due to increased demand by hospitals.
• The drug and medical consumable markets have drastically expanded and governments look for delivery models to reduce cost, lower healthcare product pricing and promote generics.
• People will have become more health conscious as their economic situation improves and less income is required to cover basic spending.
• Emerging market consumers become increasingly health conscious as a result of government efforts to promote healthy lifestyles, while in developed markets, consumers are demanding and spending more on health services.
• Established markets for healthy foods, sanitation, hygiene and health education exist across the region.
• Taking personal full ownership of one’s health is still emerging in most ASEAN countries, exceptions Singapore and Brunei.

Conquered constraints in 2020

• No major global developments jeopardised the economic growth of ASEAN countries.
• The ASEAN country governments stayed on course and committed to the 2020 Health Agenda, earmarking sufficient funding for national healthcare programs.
• National healthcare programmes delivered the expected outcomes, while national education programmes successfully promoted healthy lifestyles.
• The citizens have increased awareness about healthy lifestyles and changed behaviours to address communicable disease challenges and other basic needs.
More health conscious consumers in ASEAN - top companies have started to produce healthy food for different population segments starting with babies. Examples: Kable sweeter, Otsuka diet snacks, Nutrifood diet milk and baby food.

Innovative educational programs: launch of popular TV shows related to healthcare: Doctor Oz show, healthcare seminars hosted by leading nutrition companies: Abbott, Kalbe, Novartis, Nestle, Dexa Medica.
Healthcare delivery systems in 2020
The era of digitised medicine - in some parts of Southeast Asia while others still have to catch up providing universal healthcare

Prediction for ASEAN countries
Governments have improved their public universal healthcare systems in general and use public-private as well as transnational partnerships for necessary investments in infrastructure. Private investors will play key role in providing healthcare infrastructure and health delivery.

Conscious efforts are made to expand healthcare delivery to rural population and to address each country’s most urgent health needs. The implementation of electronic medical records in many hospitals will simplify healthcare delivery. Remote diagnostics and other advanced technologies in selected hospitals will increase the quality of healthcare services.

The 2020 world
- Governments provided series of incentives for private health providers and health firms.
- The ASEAN led Regional Comprehensive Economic Partnership (RCEP) proposed free trade agreement between 16 Asia-Pacific nations is in place for 3Bn people, generating 40% of the world’s trade.
- ASEAN becomes more relevant and influences healthcare with its Healthcare Services Sectoral Working Group (HSSWG) and attempts to harmonise health regulation regarding medical products and devices.
- The Mutual Recognition Arrangements (MRAs) on medical practitioners, nursing, and dental practitioners reshape regional healthcare expertise and allow greater mobility and skill transfer. ASEAN member countries have adopted and implemented their healthcare agendas. Labour shortages in healthcare throughout the region are being addressed and free flow of qualified staff is possible.
- Active aging has become a key theme, with laws to keep older citizens in the workforce and active aging support mechanisms in place.
- The countries have expanded the provision of healthcare to all population segments and focus on affordable healthcare.
- All basic health issues have been collectively addressed with regional health cooperation and multi-sectoral collaboration in areas of emerging infectious diseases.
- Infrastructure investments in electronic health records are paying off and quality of healthcare delivery has significantly improved.

Conquered constraints in 2020
- Private investment is sufficiently distributed and is not concentrated in high margin healthcare, e.g. medical tourism, but addresses the urban and rural imbalances in the healthcare systems.
- As the demographic transition from ‘young’ to ‘old’ societies happens much faster than in Western countries, ASEAN countries have to be faster in adapting their systems and more creative in financing as less resources are available.
- The challenge of aging population is either addressed by social welfare approaches or by realising the notion of ‘active aging’.
- Governments will have addressed labour law challenges to keep older population in the active workforce.
- The common market proposed for 2015 will allow for free flow of labour within ASEAN which will enable migration from countries with younger workers to countries needing them.
- The regional health cooperation and multi-sectoral collaborations to combat emerging infectious diseases are in place.
- The countries commit to the ASEAN Strategic Framework on Health Cooperation and its recommendations for health priorities, disease pandemics, non-communicable diseases, and aging population.
- Affordable healthcare will be provided to all and sufficient infrastructure is in place to accommodate the increase of visits to primary care facilities.
**Different drivers for Healthcare Delivery in ASEAN**

- **Indonesia** sees rising investor interest in healthcare space, e.g. private hospital groups, and active government encouragement for private sector involvement. The Negative Investment List stipulates that foreign investors may now own up to 67% (previously 65%) in healthcare related businesses. Ownership in the pharmaceutical sector is capped at 75%. Investors, such as Blackstone, Bain Capital, and Dubai Abraaj Capital are looking to break into the Indonesian healthcare sector while acquiring parts of private Indonesian healthcare operator Siloam. (Reuters)

- **Thailand** already has a well-developed healthcare sector and private investment is increasing rapidly as demand for good quality provision grows. However, government healthcare provision falls behind in quality. Thailand is increasingly more attractive for medical tourism but falls behind in the provision of healthcare for the local population. Private hospital operators, like Bangkok Dusit Medical Services, provide comprehensive infrastructure and medical after-services to medical tourists.

- **Philippines** is witnessing increasingly more investment in public-private partnerships (PPPs) for major hospital infrastructure projects.

- **Vietnam** is experiencing an increase in demand for private healthcare is boosting investment. The government offers generous incentives, such as reduced income tax rates and tax exemptions, to foreign investors in this sector.

- **Malaysia** is aspiring to reach ‘developed country’ status by 2020, hence there should be a significant increase in healthcare budget. Big opportunities for digital healthcare were expected from 2010-2014 as the government pushed to expand IT in medical care, health education, and health services system management (telemedicine). However, as of today expectations for telemedicine have not been met.

- **Singapore’s** aging population and focus on improved healthcare are driving investments. A new Healthcare Masterplan 2020 that has been enacted includes a new payment scheme covering more patients, more conditions, and more treatments with a special focus on the elderly and low income. Plans to add 3,700 hospital beds and recruitment of 20,000 more healthcare workers are underway.

- **Brunei** is a small but rich country with high investment and a well funded healthcare sector. Cross-regional partnerships, e.g. Parkway Pantai and Brunei Investment Agency for cardiac center development are in place.

**Indonesia** is embarking on an ambitious programme to introduce universal healthcare provision via basic health insurance coverage.

**Singapore** is reforming its healthcare insurance policies and focusing on increasing affordability, through reformed MediShield and elderly care.
Wearables and mHealth applications in 2020
Measuring quality of life not just clinical indicators
- Trend will catch on in Southeast Asia

Prediction
Wearables shape the quality of life of today’s consumer, capturing and tracking how people live with and manage their condition. Consumers and providers integrate information from multiple devices seamlessly to create a comprehensive view of the individual. Wearables are now adopted widely (beyond keep-fit and health fanatics) and specialist medical (bio-sensing) wearables are affordable. The new clinician/patient partnership is based on improved awareness, self-management and prevention strategies, replacing the paternalistic approach of old.

The 2020 world

- The tipping point for broad adoption of wearables has been reached – wearables are used voluntarily and are recommended as part of prevention and wellness protocols.
- The next generation of wearable devices are interoperable, integrated, engaging and outcomes focused. The technology has become much cheaper, more sophisticated and the data quality has improved.
- Wearables now continuously monitor a broad range of physiology – from posture to brain activity.
- Bio-sensing devices analyse and compare with other devices and ‘interact’ with the medical literature.
- Extensive use in clinical trials allows tracking of quality of life, not just efficacy and safety.
- Treatment plans now include ‘wearables’ as a prescription – monitoring the sickest patients and helping to better control healthcare costs.
- Wearables have made the home an extension of the hospital, allowing those who have received care to rapidly transition home.
- Patient reviews and ratings evaluate the new health apps and technologies, based on an agreed industry standard for app integration.
- Bio-sensing devices are as much the realm of start ups as non-traditional health companies, creating a big new industry, with the winners still emerging.

Conquered constraints in 2020

- Convenience of data collection, medical accuracy of data and interoperability between devices/analysis tools have been addressed.
- ‘Quality of life’ metrics are now standard in clinical trials.
- While privacy is still a concern, effective regulation and corporate branding have made consumers more willing to share their device data – from activity trackers to medical oriented data.
- Patients have learnt to share different types of data in different ways, linking their data to now standard electronic medical records; with patients ensuring the accuracy of their own medical record.
- Consumer engagement with their data has led to better medication adherence and management of chronic disease; a clear return on investment (ROI) for providers.
Better access to the internet will drive social media use: in 2013 Indonesia had 76m internet users with 66m using social media. Publishing sport and other activities in social media activities are popular in Indonesia. Vietnam is one of the fastest growing internet markets in 2014 with a 35% penetration rate and over 30% of the population owning a smartphone. In Singapore, over 70% are internet users and 60% use social media.

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.

“Honey, I Shrunk the Lab: Testing for STDs on a Smartphone” - a new device has been developed that can be plugged directly into a smartphone to test for communicable diseases, such as HIV and syphilis with just a prick of the finger.

Singapore Silverline: in 2012 Singtel initiated the Silverline programme for people donate their old iPhones to older citizens who can then utilise special apps to stay in touch, maintain health and overall well-being.
Big Data in 2020
ASEAN uses big data for health issue identification

Prediction for ASEAN countries
At the national level, electronic medical records and advanced hospital information systems will be implemented to enable analytics. This healthcare data will be used to improve outcomes of healthcare services and drug effectiveness. Governments will use big data to advance national health insurance and cooperate with regional bodies to allow regional surveillance of health risk factors.

The region will be able to analyse the social and environmental determinants of healthy lifestyles in the region and will have focused research into investments for health public policy and the health of vulnerable groups.

Information and communication technology (ICT) becomes more pervasive in healthcare and big data is used for population health management. The industry also employs the secondary use of Electronic Medical Record (EMR) / Electronic Health Record (EHR) data, Next Generation Sequencing (NGS) informatics and analytics, medical imaging and informatics, and remote patient monitoring.

Electronic health records and advanced hospital information systems will be in place thanks to appropriate investments in ICT.

The health sector has the right data for monitoring and evaluating health services and health outcomes for all population groups and for improving disease surveillance across borders.

ICT will offer valuable opportunities to provide cost-efficient solutions for health service delivery.

New measurements are developed to encourage the shift to electronic medical records and other e-vital statistics.

ASEAN leapfrogs new technology applications in mobile and e-health.

ASEAN will have compiled evidence for comprehensive packages of priority interventions that represent the most cost-effective choices for healthy lifestyles.

Government and private facilities will collaborate regarding registration and reporting systems.

Partnerships with UN bodies, World Bank, Asian Development Bank, and ASEAN’s Dialogue Partners will be in place to generate project funding, scholarship programmes, and other resource initiatives around priority areas.

Countries will have identified sustained funding systems, such as health promotion foundations, and have explored feasibility of earmarked taxes on unhealthy products and services for the promotion of healthy lifestyles.

The impairments of any state-centric model will be overcome and appropriate institutional autonomy and demutualisation will be in place.

Privatisation of hospitals and clinics will continue and improve the overall level of healthcare services.

Information technology has turned into the hoped-for game changer for monitoring health-related development outcomes.

Note: All elements on this page are from a perspective of 2020 and are fictional
Singapore’s Mount Elizabeth Hospital deploys social integrated networks, using iPhone apps and Facebook. These applications connect with potential customers, keep patients in contact at local and regional levels and thereby, drive traffic to its website for appointment bookings.

Life sciences companies complete roll outs of iPads for detailing and presentations to healthcare practitioners.

More payment are made on mobile - Near Field Communication (NFC), a short range wireless radio-frequency identification (RFID) technology is replacing physical information, value or content with a tap of a NFC card. The InfoComm Development Authority of Singapore has initiated a NFC roll out plan to allow medication purchases via NFC-enabled phones.

Singapore works on optimising elderly and chronical disease patient support:

A research group at Duke-NUS, along with others across Singapore, are studying the impact of patient support strategies, using both computer simulation studies and real-world trials to identify the need for hospital beds and the fluctuation to steer infrastructure investment.

Since 2012 the Asia e-Health Information Network initiative aims to promote better use of information and communication technology (ICT) to achieve better health in Asia. The Asia Development Bank supports ICT with investments in regional networks and knowledge platforms.

Recent healthcare developments, such as wireless health trackers and e-detaler tracking tools rely on big data. The mobile penetration across Asia is already 82% and growing.
Regulatory compliance and patient safety in 2020 – still emerging and lacking enforcement in Southeast Asia / ASEAN

Prediction for Southeast Asia
Governments within the region will strengthen regulatory compliance and enforce standards for Good Manufacturing Practices (GMP) and Good Warehousing Practices (GWP) for pharmaceutical products and medical devices. There will be a push for more standardised healthcare services which will drive up the level of compliance significantly while improving the patient safety. Further the facilities in medical institutions will become more aligned and standardised which allows for better control and monitoring of healthcare service delivery and patient safety.

The 2020 world

- Besides the alignment of the US Food and Drug Administration (FDA) and the European Medicines Agency (EMA), ASEAN has been successful in setting standards and harmonising requirements for life sciences products and services to enhance the transparency of registrations and to reduce compliance costs.
- ASEAN wide guidelines and SOPs on product and service quality, training as well as data were developed and agreed (ACCSQ).
- All ASEAN member countries adopted the ASEAN Common Technical Dossier (ACTD) and Common Technical Requirements (ACTR) for the registration of pharmaceutical products for human use.
- Governments have further implemented Good Manufacturing Practices (GMP) and Good Warehouse Practices (GWP) which have enhanced overall patient safety.
- National registration bodies, such as BPOM, Indonesia’s National Agency of Drug and Food Control, and Health Ministries have enforced stricter registration procedures for drugs and medical devices.
- As part of national health coverage programmes, Health Ministries have standardised healthcare services and drug usage for each disease treatment for all medical institutions nation-wide.
- The national Health Ministries have standardised the key requirements for medical institutions across the nations to serve patients appropriately.

Conquered constraints in 2020

- ASEAN member countries commit to standards and harmonise the registration requirement.
- The ACCSQ Pharmaceutical Product Working Group designs acceptable standards and SOPs which all member countries accept and implement.
- ACCSQ aligns its regulation to FDA and EMA to reduce complexity.
- National Health Ministries have sufficient resources and skills to manage stricter registration procedures for drugs and medical devices.
Throughout the region, non-for-profit organisations work with healthcare providers to address topics such as:

- Optimising hospital management and administration
- Introducing quality improvement tools
- Enhancing patient safety
- Levering information technology in hospital
- Improving clinical practice to ensure better patient outcomes

Compliance is a challenge in ASEAN

Singapore is the exception within ASEAN as it ranks very high on the Transparency International’s Corruption Perceptions Index (CPI) and is one of the least corrupt nations in the world. Singapore has become somewhat a compliance hub for the region.

Other countries, though, still face ongoing high levels of corruption: e.g.

- Myanmar ranks 156th on the CPI and it one of the most challenging countries with regards to enforcing compliance
- Vietnam still ranks 119th on the CPI despite all government efforts to curtail corruption embedded in its system
- Indonesia is one of the largest economies in ASEAN but ranks 110th on the CPI and puts MNCs on the spot
- Thailand is well known for political instability which results in high level of corruption. Although it has become a major manufacturing hub, it still ranks 85th on the CPI
Research and development in 2020
Use of frugal innovations to meet needs in Asia

Prediction for Southeast Asia

Overall focus continues on applied research and adaptation of products rather than basic research, with emphasis on affordability and manageability. Frugal innovations will increase and these products will eventually be used in developed markets as well. Traditional medicines will be included in the research and innovation process. Governments will promote the setting up of local R&D and Asian pharmaceutical companies will establish R&D functions.

• Multinational and domestic pharmaceutical and medical device companies will continue to focus on affordable products to serve the different income levels.

• Government regulations support technology transfer for pharmaceutical manufacturers to adopt latest/advanced technology from other foreign companies.

• ASEAN wide and ASEAN + X research networks will concentrate on meeting local healthcare needs, e.g. communicable diseases.

• Local players will leverage traditional medicines, including plants and herbs, for alternative drugs and supplements and turn this into a key competitive advantage.

• Developing countries in Asia will enable pharmaceutical companies to reduce their R&D costs thanks to lower costs for clinical trials.

• The region will see an increase in R&D investment for clinical trials.

The 2020 world

• ASEAN wide research networks are up and running with necessary infrastructure.

• The region has become an integral part of the R&D value chain of multinationals.

• Government regulations facilitate R&D initiatives between domestic and foreign pharmaceutical companies and promote technology and knowledge transfer.

• Regulations allow free flow of labour and attract and retain research talent in the region.

• Innovative and affordable products developed in the region will be used in mature markets.
Pharmaceutical companies have been active in the region for some time with focus on:

- Introduction of branded generics
- Establishment of intra-regional business development and local regional development capabilities
- Development of capabilities to speed up clinical research and drug registrations

Examples in Singapore: Lilly Centre for Drug Discover, GSK R&D Facilities, Merck Innovation Centre, Novartis Institute for Tropical Diseases and Pfizer Clinical Research Unit.

Rethinking innovation

More focus on simplification and frugal innovations used to address common challenges, such as artificial limbs for USD 45, ToucHb - a device to detect anaemia without a blood sample, diabetes monitoring for USD 40-45, blue tooth powered hardware device for easy monitoring of blood sugar level, 3nethra - a low-cost portable pre-screening ophthalmology device, or infant warmer and incubator for USD 1,300.
The pharmaceutical commercial model in 2020
Ensure the basics are covered

Prediction for Southeast Asia
Domestic companies will have matured and collaborate with multinational life sciences companies to serve their local markets.

Multinational Life Sciences companies will have a tiered structure for their commercial operations with shared functions and centres of expertise to cut through the complexity of the region with different approaches to meet the various levels of healthcare market maturity.

- All markets in the region will have developed, with Singapore and Brunei being the most advanced.
- Indonesia will be the most important market in the region, and despite its sophistication, the importance of Singapore will decrease.
- Domestic life sciences companies will have become more sophisticated along with all aspects of their value chain and will be viable partners for multinational life sciences companies.
- Multinational life sciences companies will have addressed the economic and cultural complexity in the region and will operate several business models concurrently - advanced multi-channel marketing and sales functions will be in place to provide patients and consumers with information at their finger tips and e-commerce has become normal.
- Business models will be flexible to adapt to ever-changing customer demands while being cost-effective.
- Life sciences companies will have improved their end-to-end solutions for healthcare providers and competition will have intensified.
- A mix of pure and hybrid business models between domestic companies and multinationals will be in place, including shared services, outsourcing, alliances, partnerships and acquisitions.
- Both domestic and multinational pharmaceutical companies will have a portfolio of products suitable for the various markets. With GDP growth, drugs are also increasingly affordable.

The 2020 world
Conquered constraints in 2020

- The governments in the region will have committed to the healthcare agenda and enhanced the healthcare systems.
- Governments with publicly funded healthcare plans will have curbed the overall drug spend and middle income countries, such as Indonesia, will have health care schemes in place to be copied by others.
- Multinational pharmaceutical companies will have found viable commercial models for the different types of markets in the region.
- Multinational and domestic pharmaceutical companies will have upskilled their front and back operations and will have a stronger and deeper talent bench in place.
Changes in marketing and sales in the region

Leading local pharmaceutical companies in Indonesia:

- started to deploy e-commerce sales channels for their products (Kalbe, Dexa Medica)
- are maximizing their marketing and sales activities through the internet (Sido Muncul, Kalbe)

The number of serious e-commerce players in Indonesia for life sciences is growing and enabling digital solutions (Tokopedia, Jualalkes.com, Indotrading, Indonetwork)

Better value for healthcare providers

Leading local pharmaceutical companies in Indonesia develop end-to-end solutions within specific therapeutic areas ranging from drugs, medical devices, healthcare facilities, providing services, nutrition food and beverages, as well as consultation for healthcare providers.

Leading pharmaceutical distributor is expanding service offering beyond the physical distribution of drugs and medical devices.
The pharmaceutical enterprise configuration
– the back office in 2020
An ambitious aspiration

Prediction for Southeast Asia
Global Business Services (GBS) will be the ambition of multinationals to reduce cost and complexity while enhancing compliance, however, some degree of deviation will be required to play in Southeast Asia’s markets. Previously existing shared / outsourced back office functions receding in the region will either be strengthened or slowly integrated into the global set up.

Aside from business services, parts of the region will gain in attractiveness as contract manufacturing locations.

• Multinationals will have a portfolio of business models for back office service delivery which allows them to scale up and down quickly depending on the strategy.
• Life sciences companies will have become preferred employers that attract the best local talent for each function and multinationals will have a solid talent pool in place.
• Thanks to in-house systems and external providers, more and better data will be available on markets and market players to drive fact based decision making.
• Countries like Philippines, Malaysia, and Indonesia will have developed into attractive locations for Business Process Outsourcing (BPO) and Knowledge Process Outsourcing (KPO) as part of a global GBS model.
• The region’s attractiveness for contract manufacturing and contract research will be established.

The 2020 world

Conquered constraints in 2020

• Agile business models for back office functions have been developed to allow fast integration or carve out of business parts or functions.
• The remaining wave of ERP implementations and upgrades will have taken place and the systems and data will be mainly standardised.
• Sufficient talent for IT and other back office functions can be attracted and retained and they are skilled in leveraging ERP systems’ full potential.
• Mobile technology will be deployed for front and back office functions to speed up access to data and data entry in congested urban and remote rural areas of the region.
News snippets from 2020

• "The GBS organisation at PharmaforToday has really started to deliver from both a cost and value perspectives. By adopting common governance and standardised processes across the back office, we have delivered year-on-year cost savings and assured the quality of information across the business. Our integrated network of ‘Centres of Excellence’ has provided the insight that has underpinned our recent top line growth.”
  - Susan Smith, SVP, GBS, PharmaforToday

• Their agile, flexible and standardised back office models have shifted big pharma from their previous laggard state to a trail blazer in organisational efficiency and effectiveness.

The 2020 portrait of a local market relationship director

In less than an hour, the new dashboard has provided me with all my critical local performance data. Bringing together financial, operational data with our CRM outputs has enabled greater transparency on customer profitability and has also driven enhanced customer satisfaction as a result of more effective targeting. It really helps that our back office systems are now standardised and that GBS is providing us with value added information that is consistent across all of our markets.

A 2020 industry analyst view of pharmaceutical companies

A ‘Buy’ rating for PharmaforToday given it has finally addressed its back office support model – it is now global, leaner and driving critical insights for the business. Targeted investments in R&D have paid off with a revitalised pipeline and number of successful new launches. Their joint venture with a key Health Analytics company is really starting to pay dividends.
New business models in emerging markets in 2020
Still emerging, but full of creativity for the world
- agile and scalable business models needed

Prediction
While the traditional pharmaceutical markets in the US, Japan and Western Europe remain the main markets for drug companies, new markets requiring new business models are gaining pace. The focus on Brazil, Russia, India and China (BRIC) is now being challenged by new emerging markets in Latin America, Vietnam, Indonesia and Africa. These are proving an even bigger surprise, incubating new business models and leading in the development of new drugs.

The pharmaceutical industry has responded to the various healthcare delivery models being adopted by different emerging countries and is tailoring their strategies accordingly. The focus is on access, affordability and outcomes – with an emphasis on local and being more than just the pill.

The 2020 world
- Insights and learnings from emerging markets have led to the emergence of new business models, creating a step change in the operating and commercial models of traditional markets.
- New markets in Africa and Asia have emerged – where formerly only generics companies played.
- Indonesia and Nigeria are leading the way in addressing the sheer size, geographical spread and inherent challenges of young populations with high levels of unmet need, prevalence of infectious diseases and poverty.
- Management teams are diverse and routinely include locals from emerging markets.
- Pharmaceutical companies have established dual brands, for certain emerging markets, allowing more locally tailored pricing models, while preventing parallel trade.
- Diabetes and specific cancers are now the foremost healthcare issues in these emerging economies, challenging all stakeholders to develop solutions.
- Translational medicine, including gene sequencing, has allowed emerging markets to leap-frog the West in some elements of research. With Brazil and China the main sources of drug innovation, providing a major contribution to the solutions for ageing and co-morbid populations globally.

Conquered constraints in 2020
- IP protection and regulatory frameworks for operating in BRICS and other emerging markets have evolved and are now understood.
- Ability to manage and run local partnerships in diverse cultures and legal environments has improved and the number of partnerships has reached a tipping point.
- Emerging market governments recognise that innovative treatments and global pharmaceutical companies have a role to play in their markets and have developed mutually beneficial relationships.
- The exponential development of healthcare technology has enabled emerging countries to develop new more flexible models of healthcare focussed on mobile, high volume, low cost delivery. In response pharmaceutical companies have developed tailored strategies that align to this more flexible environment.
- Pharmaceutical companies have invested wisely in local talent development initiatives which are paying dividends.

Note: All elements on this page are from a perspective of 2020 and are fictional.
Asian companies race to the top

Japanese Sysmex aims to be one of the top global diagnostics companies by 2018 and already leads in one of the key IVD segments.

Korean Samsung S Health has emerged as the mobile app of choice in the region.

Australian Telstra announced an eHealth strategy for Asia to provide a platform for bundled services and health meta data used to solve healthcare problems.

About generics

“We are likely to see many more mergers, acquisitions and other partnerships between generics manufacturers and big brand companies, as they seek to exploit complementary advantages.”
- Asia Competition Barometer Pharmaceuticals

Regional acquisitions: Sanofi and Shantha Biotechnics, Abbott Laboratory and Piramal Healthcare’s generics business.

“The Asia-Pacific generics market expanded at a compounded annual growth rate of 13.5% between 2006 and 2010 and reached USD44.8bn in revenue. The growth expected between 2010-2015 is 12% with USD79bn in 2015.”
- Datamonitor

Branded generics

It is expected that regulatory shifts surrounding the use of authorised generics will greatly influence the industry.
New business models and pending challenges in Southeast Asia

Some successful and not so successful new business models

- Indonesia: 4 out of 5 physicians in Jakarta trawl the internet for work-related information and e-patient record use is slowly catching on.

- Widely used digital apps in Indonesia include ‘Dokter Kita’ (Our Doctor) for consultation and prescription submissions as well as medicine purchases. ‘Doktor Gratis’ (Free Doktor) consists of 12 practitioners responding to about 1,000 chats a day.

- In the Philippines, the digital landscape is changing fast with the public and private sector pushing for the digitisation of healthcare information and accessibility for the benefit of the population.

- In 2013, Smart Communication began its collaboration with Asian Hospital and Medical Centre a digital health system.

- Although the Thai government aims to turn the country into a health hub for Southeast Asia, it lacks a digital healthcare strategy.

- The Thai Tele Diang application addresses the shortage of radiologists in the country by offering a pioneering tele-radiologist service.

- Thus far, Vietnam’s digital reach covers only administrative systems, but ‘telemedicine’ is beginning to take off.
Some pending challenges in this region

- Requirements for evidence to show cost effectiveness of medical products, e.g. health technology assessments
- Price controls for innovative products
- Lack of reimbursement coverage and access to innovative medicines and products
- Under-utilisation of advanced technology in healthcare delivery

• During 2010-14, the Malaysian government pushed for the expansion of the use of IT in medical care, health education and health system management (‘telemedicine’) to allow for virtual medical consultation and training, but failed in delivering the initiative due to lack of knowledge and execution capabilities.

• Vietnam’s Medisoft is already the standard software for all hospital statistic medical reports and ‘telemedicine’ is beginning to be used for tele-consultations, tele-surgery assistance, tele-imaging, and tele-cardiology.

• Brunei already has a single electronic health record in place, accessible from any hospital clinic or healthcare centre. iSodt and Ishajaya Technology are charged with building the framework for their digital healthcare system.

• Brunei is the first country with tele-medicine facilities that allow patients access to stroke specialists in Germany without leaving home.

• Singapore just rolled out ‘clinics on wheels’ for health screenings and patient advice.
Prediction
The pharmaceutical industry has made real inroads in repairing the negative corporate reputation that has plagued it over the last few decades. Tackling corporate reputation has been a top priority for all pharmaceutical companies, though for most, full rehabilitation will require a few more years. Successes have been where the pharmaceutical companies have become more inclusive and actively seek to understand and meet the needs of their stakeholders. Equally important has been the impact of the industry’s campaign to demonstrate more transparency in its approach to drug development and pricing.

The 2020 world
• Over the past five years, most companies have found a way to balance corporate responsibility with financial reward and now demonstrate this in a set of measures reported in their annual reports.
• Corporate brands are now more prominent and trusted, and a differentiator in attracting both partners for R&D and patients for trials.
• New research confirms that the corporate reputation of the industry and an individual pharmaceutical company is inextricably linked to the quality of the relationships built with patient groups. Corporate brands are used nearly exclusively – from healthcare and R&D partnerships, to patient apps and social media.
• Closer contact with patients and clinicians through engaging with pharmaceutical company branded clinical services has improved awareness and reputations.

Conquered constraints in 2020
• Concerted social media participation and new partnerships with patient groups have helped the pharmaceutical industry reverse the previously antagonist stance.
• Assumptions that pharmaceutical companies lack a philanthropic approach have been overturned through stories of improved healthcare in developing countries and positive feedback from hard-up patient groups.
• A culture of improved transparency has become prevalent – in relation to drug pricing; payments made to prescribers; results of all clinical trials; and by making all data available to independent scrutiny.
• Leading healthcare providers in Southeast Asia will have comprehensive monitoring for patient, product and process safety in place and will frequently communicate with stakeholders to resolve and avoid incidents.
• Non-Asian pharmaceutical companies in Southeast Asia will have implemented all overseas transparency requirements and there will be increased adherence to them by domestic pharmaceutical companies.
• Asian contract manufacturing organisations (CMOs) will be part of big pharma value chains and have overcome the quality perception among non-Asian pharmaceutical and deliver consistently top quality products with strict adherence to regulations and respect for IP.

Note: All elements on this page are from a perspective of 2020 and are fictional
“Some of the key challenges pharmaceutical companies face with regards to their reputation in Asia are related to pricing structures and policies, product safety and quality / effectiveness of products. Lack of communication on pharmaceutical companies’ schemes on affordable drugs and research in developing countries results in negative perception among patients and consumers.”
- Globescan 2013

Some healthcare providers in the region have succeeded in developing into some of the most trusted brands in their country; something not yet seen for life sciences companies.

Among the most trusted brands in 2014 found in Malaysia are KPJ Healthcare and the Pantai Hospital Kuala Lumpur, in Singapore the National University Hospital, the Singapore General Hospital and the Tan Tock Seng Hospital and in the Philippines the St. Luke’s Medical Centre, The American Eye Centre, Makati Medical Centre and the Medical City.

A US Life Sciences company already provides detailed time-driven activity based costing studies (TDABC) to hospitals to ensure efficient and effective workflows, equipment use, and optimised outcomes. These studies can be part of the planning process and set up of new hospitals or whenever the hospital adds new diagnostics or surgeries to its service portfolio.

Other life sciences companies use TDABC studies in this region to recalibrate not only their own value propositions to healthcare providers but also to become a real partner to the healthcare provider by bringing them cost and outcome improvement opportunities.

Following trends in the US, healthcare brands will start making their presence felt on social media spaces and app shops, especially on Renren, Sina Weibo, Qzone and Douban.

“Leading hospital providers already have robust comprehensive and strict clinical governance system in place which includes counter-check system on all adverse drug reaction outcomes. Any patient incidents can almost be immediately detected and trigger internal audit procedures. Any incident is reported to authorities for further action, thereby preventing any future potential adverse outcomes across the country.”
- Siloam Hospitals Indonesia
### Glossary of terms in 2020
The ‘new speak’ in healthcare and life sciences

<table>
<thead>
<tr>
<th>Term</th>
<th>Potential definition in 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Augmented wear</td>
<td>Contact lenses, pumps, pace makers or other implants with measuring/tracking functionality. Augmented wear could see devices 'add further value' such as a 'zoom lens or night vision' built into the contact lens.</td>
</tr>
<tr>
<td>Clinician Support Educator/ 'Orchestrator'</td>
<td>Used to be called a ‘sales rep’. Now is the glue that holds the local healthcare system together and provides information and training for the local clinician community.</td>
</tr>
<tr>
<td>Global Business Services Officer</td>
<td>A global executive appointment that manages the entire back office and functions to support the global operations. It manages the analytics assets for the firm as well as the complex supplier partnerships that support the global virtual back office.</td>
</tr>
<tr>
<td>Health co-creator</td>
<td>A new type of patient – informed, knowledgeable about their own health, and fiercely informed about what is possible in terms of drugs available, trials being run and what s/he should be entitled to from the healthcare system.</td>
</tr>
<tr>
<td>Healthcare partnerships for outcomes</td>
<td>Pharmaceutical company partnerships with the healthcare system – either payers or secondary care institutions that are multi-year and focused either explicitly or implicitly on patient populations outcomes.</td>
</tr>
<tr>
<td>Intensivists</td>
<td>A medical specialist in critical care medicine.</td>
</tr>
<tr>
<td>Moore's law</td>
<td>An observation made by Gordon Moore in 1965. He noted that the number of transistors per square inch (related to computer processing power/memory) on integrated circuits had doubled every year since their invention.</td>
</tr>
<tr>
<td>Multi-channel relationship management</td>
<td>No longer just multi-channel marketing – pharmaceutical companies use multi-channels to manage relationships with each clinician – both to serve the clinician and his patients better, but also to ensure all that is done is compliant with regulations.</td>
</tr>
<tr>
<td>Nanoparticle Pill</td>
<td>An oral pill containing nanoparticles which enter the bloodstream to, for example, achieve targeted drug delivery or identity changes in a person’s biochemistry (if paired with a wrist-worn sensor).</td>
</tr>
<tr>
<td>Networked R&amp;D</td>
<td>R&amp;D is now about finding and evaluating other people’s ideas. Network management of a whole series of contacts – from academia to promising start ups is critical.</td>
</tr>
<tr>
<td>Pharmacogenomics</td>
<td>The study of how genes affect a person’s response to drugs.</td>
</tr>
<tr>
<td>Quantified self</td>
<td>A consumer who tracks multiple dimensions of his health and quality of life using a variety of sensors – from a smartphone to specific sensors and more medically oriented devices (e.g. glucose meters).</td>
</tr>
</tbody>
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