



Digital Health in Vietnam

Market Intelligence Report



Department for
International Trade



Department for International Trade
report prepared by KPMG and Oxford
University Clinical Research Unit

—
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Foreword

Welcome to the *Digital health in Vietnam – Market intelligence* report!

In an age of growing challenges from non-communicable diseases, and emerging threats from infectious diseases such as COVID-19, digital health has the potential to offer new solutions and alleviate pressure on overstretched health systems. Digital health technology can empower patients to actively participate in their care, improve clinical outcomes and enhance operational efficiency.

Innovation and technology have touched many aspects of life in Vietnam and healthcare is no exception. In a concerted effort to embrace Industry 4.0, the Vietnamese government has committed to a national agenda that seeks to harness the potential of digital solutions across the health system. This has set a solid foundation for digital transformation in Vietnam.

Vietnam and the UK share many of the same aspirations. We seek to utilise digital innovation to expand equitable access to quality care, in line with United Nations Sustainable Development Goal 3, on good health and wellbeing. At the early stage of digital transformation, Vietnam has plenty of opportunities for innovative solutions from the UK. In this comprehensive guide, we provide insight into current market opportunities across health informatics technology, telemedicine, AI and Big Data. The report also explores the future direction of digital healthcare transformation in Vietnam and potential challenges facing new entrants to the market.

The UK and Vietnam have a rich history of collaboration, and this year we celebrate 10 years of strategic partnership. I am delighted to support UK organisations interested in entering the Vietnamese market and I wish you every success in exploring long-term partnerships in Vietnam that will further strengthen our bilateral healthcare ties.

For more information on these opportunities and how we can help you do business in Vietnam, please reach out to our team.



Emily Hamblin
Department for International Trade in Vietnam
December, 2020

Over the past two decades, Vietnam has achieved laudable improvements in key quality of life metrics such as life expectancy, infant mortality, and access to affordable medicines. This success is the result of the government's concerted effort to modernise the health system and expand access to affordable care. At the time of writing, Vietnam has extended Universal Health Coverage (UHC) to 90% of the population, and targets to reach 95% by 2025. This coverage ratio leads its regional peer markets. The country nevertheless still has a relatively high out-of-pocket expense ratio while spending the highest amount of GDP on healthcare. It is therefore likely that if Vietnam hopes to continue to expand access to quality care and maintain sustainable health financing, the health system will need to find a way to provide more services, while expending fewer resources per patient.

Digital health is one answer to achieving scale of access while improving clinical outcomes and maintaining costs. To do this, the government needs to expand market access and encourage international business and clinical partnerships.

UK companies have many of the missing digital pieces Vietnam needs to accelerate progress towards its healthcare development goals. At the same time, digital health companies that understand Vietnam's unique population health challenges and can provide collaborative solutions will gain access to one of Asia's fastest growing healthcare markets. Through this market access, companies can achieve early-entrant advantage and meaningfully help Vietnam's financial and physical burden of disease.

This document is intended as an introductory guide to Vietnam's digital health market. Please do not hesitate to reach out to its authors or Department for International Trade as you begin your exploration.

Enjoy the read



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Overview of Vietnam's economy

Macroeconomic indicators

Population

Population overview

At the time of writing, Vietnam has a population of 96.5 million, making it the 15th most populous country in the world, 8th in Asia and 3rd in Southeast Asia (behind Indonesia and Philippines)¹. Despite the addition of around 1 million people per annum, the rate of Vietnam's population growth has slowed gradually, from approximately 2% per annum in the early 1990s to around 1.1% throughout the 2010s. By 2024, the country's population growth rate is expected to slow to 0.8% per annum, reaching a total population of 101.1 million².

As Vietnam's birth-rate declines, its average population age will continue to rise. Currently, Vietnam is enjoying a so-called "golden structure" in its age demographics, with 70% of the population aged 15 to 64 years. This age structure has been a key driver in the country's recent economic development and will continue to push its transition from a largely agrarian economy to one led by export manufacturing and domestic consumption. After 2030, Vietnam will however begin to age rapidly, with the over-65 years of age cohort growing at an anticipated 5.3% per annum. This could drive the growth of the current "retirement age" population distribution 300% by 2050, potentially straining health and related resources.

1. World Population Prospects, the 2019 Revision
2. Fitch Solutions

Implications to digital health

Indicator	Issue	Implication
Golden population structure	Among the working-age population, nearly half are under 34 years of age, which is favourable for the adoption of innovative science and technology.	Vietnam is well positioned to adopt digital health solutions. For instance, there will be a potentially large addressable market for consumer health electronics in the country.
Ageing population	The golden population structure is also associated with an ageing population. The faster growth rate of the people aged 65 years and above will create a burden on healthcare facilities and demand for care services. This will be particularly acute for elderly-care in the country.	The application of Big Data and AI can bring geriatric care solutions. Vietnam can apply passive sensors and other near-patient monitoring technologies to enable remote care solutions that link an individuals' behaviour to treatment. At the same time, electronic health records will pave the way for more efficient medical information management. Governments and policymakers can utilise relevant population-based data to initiate preventative programs and make decisions at a health-system level. Health workers will be able to deliver healthcare services more effectively, thanks to the availability of historical health records and related training programs. The adoption of remote monitoring and telemedicine of elderly patients will lessen hospital overcrowding by allowing doctors to monitor patients from their homes, and thus freeing hospital resources such as beds and saving administrative costs.

Economic development

Over the last several decades, Vietnam has achieved rapid economic and social development, which has driven the demand for more advanced healthcare services. Beginning in 1986, the Doi Moi reforms initiated a broad-based economic transformation, which opened a largely closed economy to international markets and trade and began a series of 'pro-business' reforms. As a result of these policies, Vietnam achieved high economic growth rates that lifted the country to Emerging Market economic status. This strong economic expansion will likely continue to benefit the country by creating an attractive growth story that will further attract Foreign Direct Investment (FDI) (growing by 13.5% per annum from 2014 to 2019 in terms of registered capital), which in turn will bring much needed technology and knowledge transfer³. Vietnam has signed 13 Free Trade Agreements (FTAs) further accelerating inbound FDI. Most notably of which are the ASEAN Free Trade Agreement (AFTA), the Comprehensive and Progressive Agreement of Trans-Pacific Partnership (CPTPP), and more recently the EU Vietnam FTA (EVFTA). These trade agreements are lowering tariffs on many goods including medical equipment and will help position Vietnam as an attractive investment and trade destination. At time of writing, Vietnam is in discussions with the UK on a possible bilateral agreement. Such an agreement would extend similar market access benefits to UK-based organisations.

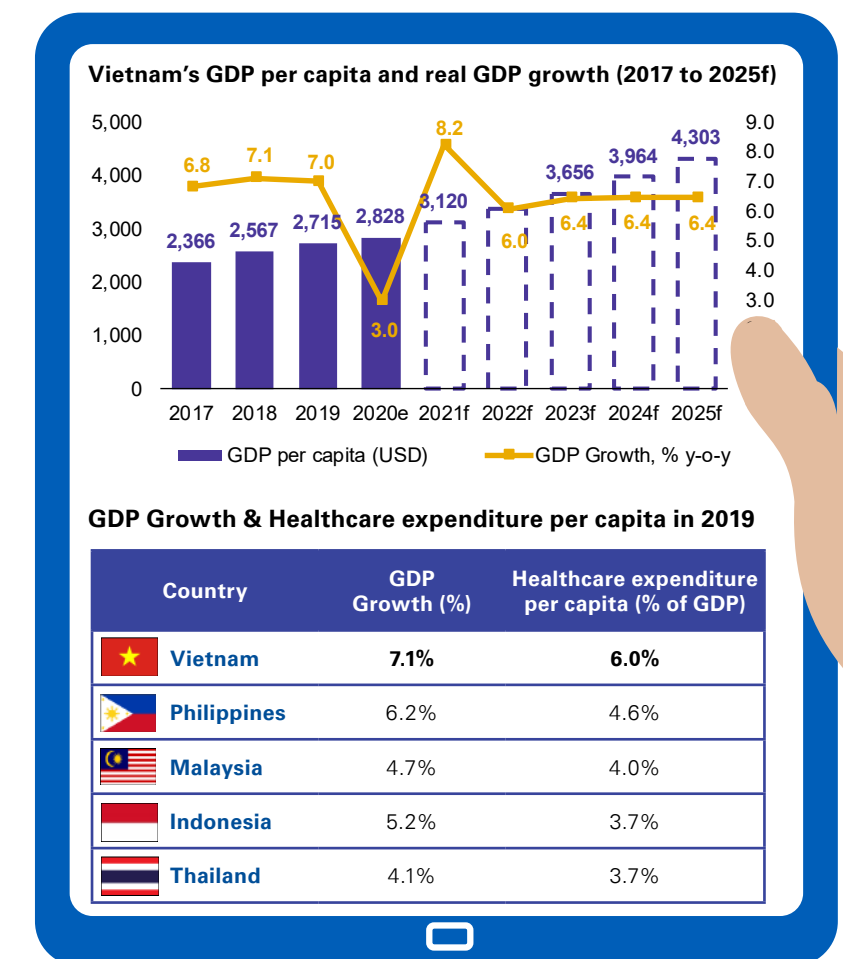
Growth in FDI is driving GDP per capita and the rapid expansion of an urban middle class. This middle class is expected to account for up to half of the total population by 2035⁴ and will, according to the World Bank, drive growth in per capita healthcare expenditures. This expansion in healthcare expenditures will be more apparent in higher-end care and in urban areas, which could expand rural healthcare access inequalities.

3. The Ministry of Planning and Investment
4. Fitch Solutions

Implications to digital health

Indicator	Issue	Implication
Increased living standard	An increase in living standards and healthcare expenditures will likely expand Vietnam's access to digital health, which can be provided at a lower incremental cost than traditional models of care.	Some of the most notable examples include consumer health electronics (e.g. hi-tech wearables) and telehealth (e.g. remote health diagnostics, monitoring, intervention, and education). The application of telehealth will play an important role in supporting the diagnosis and treatment of non-communicable diseases across the population. However, this poses a challenge for the lower income groups with less access to technological advances, particularly those in remote, underdeveloped, or rural areas. To attain universal health coverage for the entire population, further government support and policy incentives will be required.

Vietnam's GDP per capita and real GDP growth from 2017 to 2025f



GDP Growth & Healthcare expenditure per capita in 2019

Country	GDP Growth (%)	Healthcare expenditure per capita (% of GDP)
Vietnam	7.1%	6.0%
Philippines	6.2%	4.6%
Malaysia	4.7%	4.0%
Indonesia	5.2%	3.7%
Thailand	4.1%	3.7%

Source: Fitch Solutions



Vietnam's healthcare sector overview

Health status in Vietnam

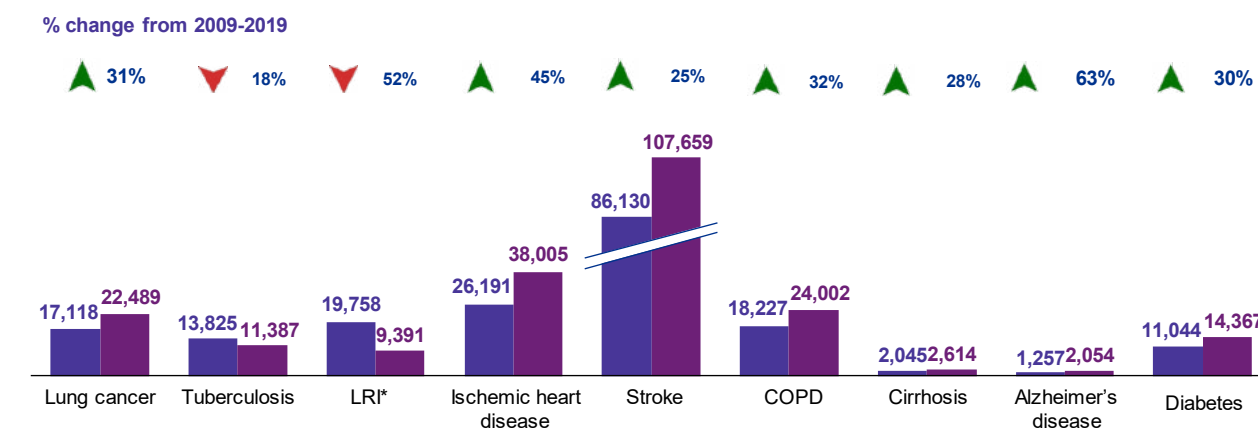
The World Health Organization (WHO) recently estimated that non-communicable diseases now account for 77% of all death and disability in Vietnam. Of these, cardiovascular disease and cancer are the two most common contributors to premature death and loss in disability-adjusted life years (DALYs), followed by diabetes/chronic kidney disease as the 3rd most common cause of death and 4th cause of DALYs. Many of these deaths can be prevented with improved diagnosis, monitoring, and tech-enabled early-stage interventions.

There is increasing recognition of the important interactions between non-communicable diseases co-existing with infectious diseases, particularly cardiovascular diseases. For example, hepatitis C Virus infection is associated with an increased risk of cardiovascular disease and represents a global burden of the loss of 1.5 million DALYs. This tragic burden falls disproportionately on low-income and middle-income countries. Risk of type 2 diabetes mellitus is increased by almost 70% in Hepatitis-C infected patients. Similarly, in people living with HIV, increased risk of cardiovascular disease has been noted. Whilst there is limited data on co-existing cardiovascular and infectious diseases in Vietnam, the high rates of both means that improving diagnosis and management of these is likely to have a particularly significant impact in Vietnam.

Implications to digital health

Indicator	Issue	Implication
NCD impact on health	The nature of ill health in Vietnam is changing from communicable to non-communicable diseases. This trend is expected to continue, which will create a greater need for long-term and coordinated healthcare services that cater to chronic diseases. Digital health is well-positioned to help address these challenges.	Telehealth can promote a healthy lifestyle and encourage preventative measures through patient risk-factor monitoring in pre-disease stages. The utilisation of Big Data and AI in digital health allows for real-time, population-based, forward-looking data that can help avoid or mitigate non-communicable diseases while enhancing care delivery.

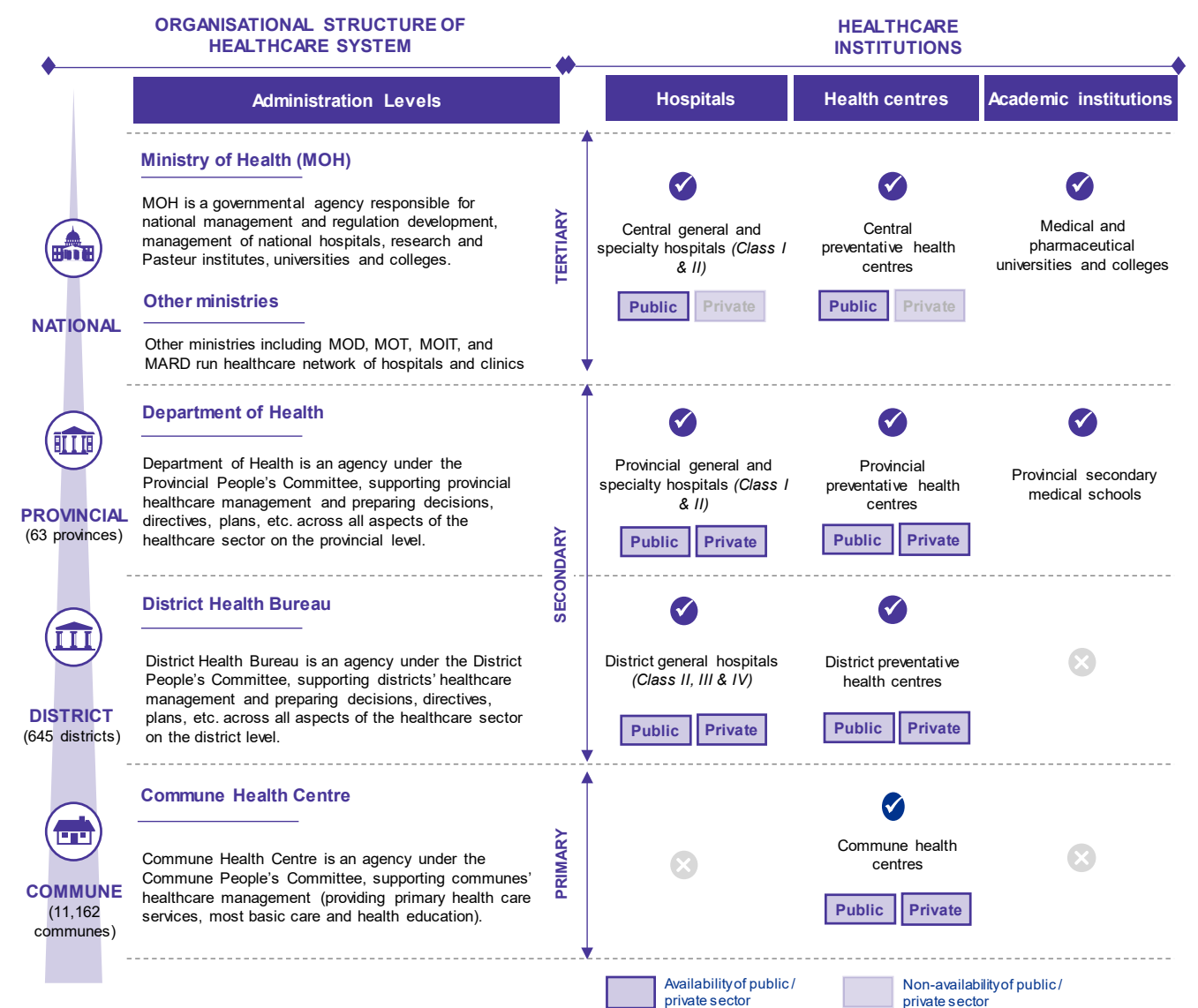
Top causes of death in 2019 & percentage change from 2009 - 2019



Source: World Health Organization

Healthcare structure in Vietnam

Healthcare system



Source: The Ministry of Health, World Health Organization

Hospital capacity

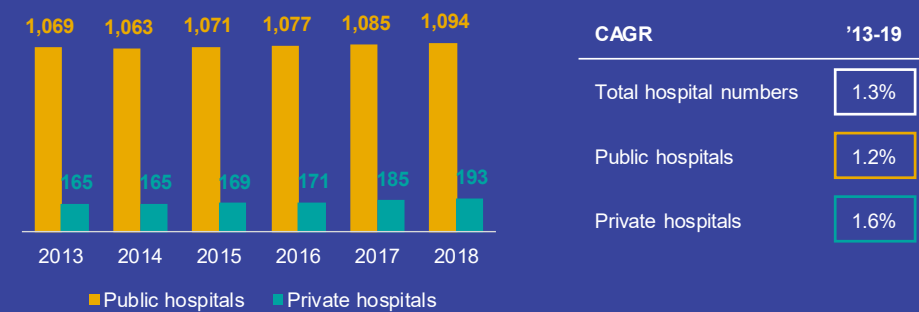
Hospital numbers

Vietnam's public sector has a decentralised hospital system classified into four groups corresponding to four administrative levels. At the central level, specialised and general hospitals provide secondary and tertiary care, and are active in research, and function as teaching hospitals. At the provincial or city level, hospitals and medical centres mostly provide secondary and tertiary care, combined with outpatient services. Each province is divided into roughly 20 districts. District health centres offer primary and some secondary care services. Finally, at the communal level, Communal Health Centres (CHCs) offer primary and preventative health services. Communal healthcare centres are generally the first point of contact for much of the population, especially in rural areas.

The Vietnamese private healthcare sector has started to play an important role as a provider of care in major cities. The percentage of private hospitals is projected to increase rapidly in the coming years as domestic corporations develop hospital groups and clinic chains across the country. Some of the examples include Hoan My Medical Corporation, and Vinmec Hospital Network of Vingroup. Main drivers behind growth are:

- 01 Many public hospitals lack needed infrastructure investment;
- 02 Rising personal income allows patients to increase out-of-pocket payments for private sector and/or premium healthcare services and
- 03 FDI encouragement policies allows foreign investors to build wholly foreign-owned hospitals.

Number of hospitals in Vietnam (2013-2018)



Source: Fitch Solutions, World Health Organization, General Statistics Office of Vietnam

Hospital beds

Over the past five years, according to Fitch Solutions and the General Statistics Office of Vietnam, approximately 6,000 hospital beds per annum have been added to the healthcare system, corresponding to a CAGR of 2.5% (from 2013 to 2018). Of these additional hospital beds, nearly 16% are at national level, while 43% and 41% are added to provincial and district levels, respectively. This demonstrates the effort of the government in alleviating the overloaded capacity of hospitals across Vietnam.

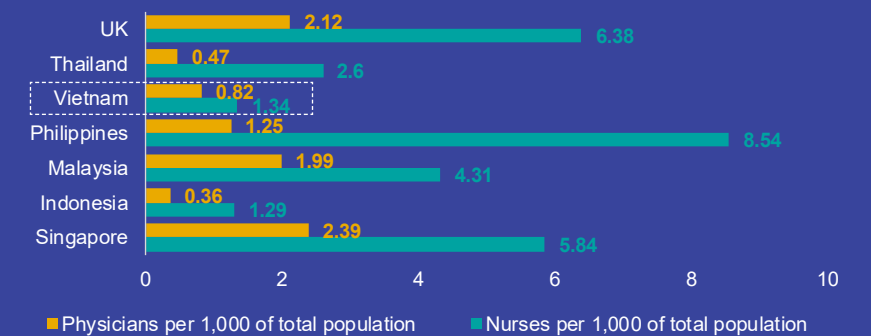
However, the proportion of private hospital beds remains low (5%), mainly due to the marginal volume of private hospitals. Nevertheless, the government has indicated its intent to grow the ratio of private hospital beds to 20% of total hospital beds through public and private partnerships.

In terms of the number of hospital beds per capita, there are large regional variations. More specifically, Vietnam's North Central and Central Highlands have far fewer hospital beds per capita compared to other regions. Recently, the shortage of hospital beds has increased: bed to patient occupancy rates has reached 120-160% in some public hospitals. This increase is often most pronounced in central hospitals in major cities.

Healthcare professionals

Vietnam ranks on the lower end of countries with regards to trained Healthcare Practitioners (HCPs) per capita. This shortage is particularly acute in specialised care, such as cancer, palliative care, geriatrics, and mental health. The distribution of health workers between urban and remote areas is also a challenge, with higher concentrations in urban areas.

When compared with regional peer markets, one can see Vietnam's shortages are particularly acute in trained nurses. As of 2018, there are 77,995 physicians and 128,386 nurses in the country, which is relatively low compared to the total population (around 1 physician and 1.3 nurses per 1,000 residents).



Source: Fitch Solutions

Indicator	Issue	Implication
Hospital capacity and professional staffing	Congested and overcrowded hospitals remain a challenging issue in Vietnam. This strains resources in central and provincial hospitals and creates inefficiencies at the district and community levels.	Digital health can help address capacity constraints faced by public hospitals. By introducing solutions such as telehealth and electronic health records , more patients, even in rural settings, can gain access to needed healthcare, thus also improving hospital efficiency and reducing patient crowds. From a health-economics viewpoint, telehealth and electronic health records can also help healthcare providers cut cost by reducing paperwork, improving safety, eliminating duplicative tests, and improving health outcomes. The latter drives economic benefit by lowering readmittance through long-term remote monitoring.

AI and wearable tech have the potential to improve quality of care while reducing cost of care in Vietnam. By extending patient access to AI-enabled wearable devices, healthcare professionals can gain a real-time view of patient conditions and make more accurate and faster diagnoses. Layering AI and Big Data into the monitoring and diagnosis process will give clinicians the ability to analyse multiple patient data sets simultaneously to identify irregularities and take early-stage preventative action when interventions are more effective and cheaper.

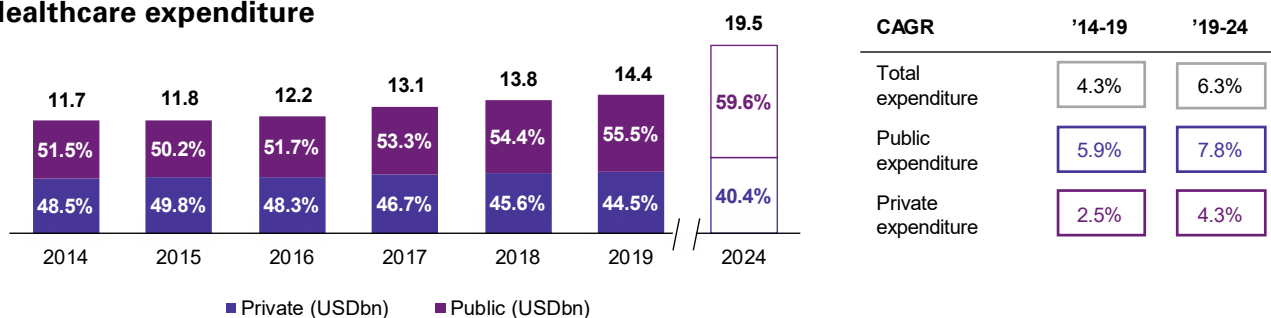
Healthcare insurance system in Vietnam



Vietnam has made great strides in expanding health insurance coverage. After introducing compulsory insurance in 2015, Vietnam now aims to grow the coverage rate of health insurance, setting the goal of reaching 95% in 2025. Nevertheless, out-of-pocket expense ratios in Vietnam are some of the highest in ASEAN, which puts considerable financial pressure on lower income households.

It should be noted however, Vietnam has made substantial progress in lowering out-of-pocket expense from 61% in 1999 to 45% as of 2019.

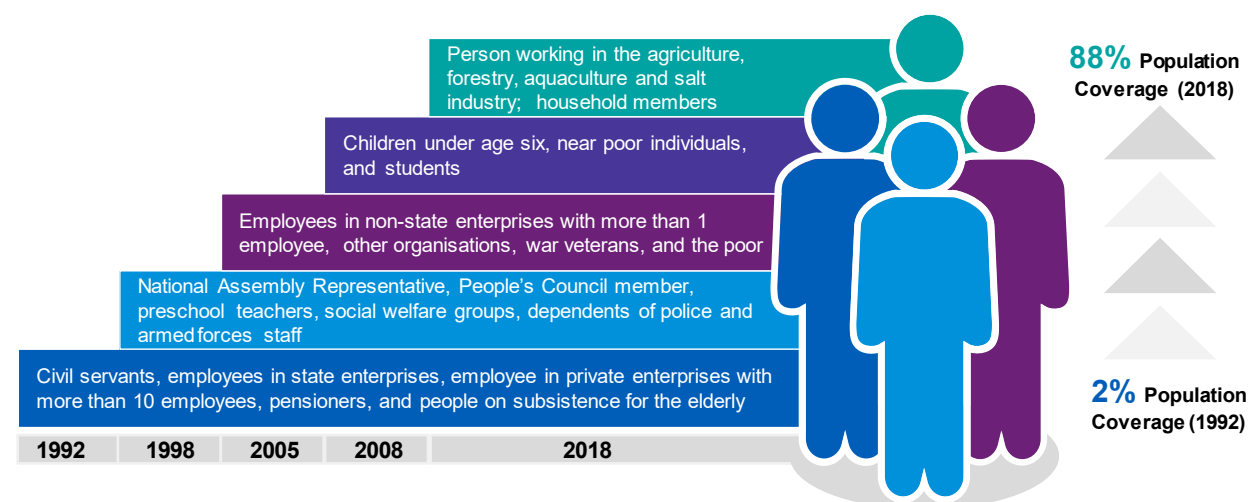
Healthcare expenditure



CAGR	'14-19	'19-24
Total expenditure	4.3%	6.3%
Public expenditure	5.9%	7.8%
Private expenditure	2.5%	4.3%

Source: Fitch Solutions, World Health Organization, General Statistics Office of Vietnam

Public healthcare insurance



Private healthcare insurance

In 2018, 33 million people (35% of total population) were covered by some forms of private health insurance. This coverage, however, only represents 2% of total health expenditures⁵. Low coverage rates are largely due to

- 01 strict regulations imposed for non-life insurance companies operating in the market;
- 02 high insurance premiums compared to public options; and
- 03 low brand awareness of private insurance packages.

5. News articles
6. Fitch Solutions

However, after the increase in healthcare fees at large public hospitals brought about by the so-called 'autonomy mechanism', more people are expected to join private health insurance policies to gain access to higher reimbursement rates and more comprehensive coverage. Furthermore, continued growth in private sector employment will likely expand employee-benefit insurance packages as a share of total private insurance.

Compared to peer market countries, insurance penetration rates (calculated by total premium over total GDP) for Vietnam remains on the low range, accounting for only 2.4% of total GDP in 2018. This indicates room for further growth⁶. According to the Insurance Association of Vietnam, the insurance penetration rate is expected to reach 3-4% in the near term.

Healthcare quality and access



Patient journey

Inpatient and outpatient care

In Vietnam, outpatient visits outpace inpatient admissions by two orders of magnitude. Overall, both inpatient admissions and outpatient visits remained consistent from 2014 to 2019, with 5,600,000 cases admitted to hospitals and approximately 156,000,000 outpatient visits served per year respectively⁷. Overcrowding remains prevalent, given the fact that

- hospitals often run inpatient care at over-capacity levels, meaning more than one patient is assigned to the same hospital bed, and
- healthcare facilities will often see between 5,000-8,500 outpatients visit per day, particularly at central hospitals.

Vietnam's efforts to reduce the average inpatient stays have not yet seen success. Average stays remain at or above a week since 2013. While this is comparable to levels seen in the Philippines and Indonesia, Singapore, Malaysia and Thailand have managed to shorten this indicator to less than 5 days. For patients, a lengthier stay means higher costs and risk of nosocomial ("healthcare-acquired") infections from other patients at the hospital. At the same time, for hospitals, higher length of stay results in lower patient capacities.



7. Fitch Solutions
8. KPMG Analysis, PR Newswire
9. KPMG Analysis, PR Newswire

Medical tourism

Inbound medical tourism

Medical tourism has flourished globally over the past decades and is now valued at over USD53 billion. This value is expected to grow at 12.9% through 2025⁸. Asia Pacific is a top source of, and destination for, medical tourism patients. This, however, is still in the early stages in Vietnam. While competitively priced, the number of foreign patients in Vietnam is still relatively small compared to Singapore, Thailand, and Malaysia. Most of Vietnam's inbound medical tourists come from Laos and Cambodia. For now, Vietnam is not considered as a top destination for medical treatment due to a lack of health infrastructure investment and regional brand recognition.

Outbound medical tourism

As the local healthcare sector continues to experience capacity constraints, a significant number of upper-middle to high income patients have chosen to receive healthcare services abroad from regional countries such as Singapore, Thailand, Malaysia, or even further afield in the United States. The total amount paid for these services abroad is estimated to be USD2 billion yearly⁹.

Critical factors for why patients prefer overseas treatment to local care can include,

- reputation of foreign facilities,
- qualifications and experience of foreign doctors,
- availability of medicines, and
- better service and overall quality of care.

As well, inconsistency in diagnosis between local healthcare facilities can also play a role in the decision of patients to seek second opinions abroad.

Implications to digital health

Indicator	Issue	Implication
Healthcare access and quality	The relatively low ranking of healthcare access and quality index reflects some current challenging issues for Vietnam's healthcare system. More specifically, overcrowded hospitals need the most infrastructure investment.	Increasing demand for ageing infrastructure and human resource shortages are driving hospital executives and government officials to leverage digital to optimise the patient experience and create a health system without walls. Digital health technology and the medical tourism industry are converging to enhance patient experience and trust in the process. This effort will shrink the perceived quality of care difference between Vietnam and other markets, which will help to stem the USD2bn in outbound medical tourism and strengthen Vietnam's brand as a medical tourism destination.
Patient journey	Even though Vietnam's total number of hospital beds and ratio of doctors per capita have reached national objective levels, hospital capacity is still overcrowded. This indicates that availability of professionals and facilities still does not meet the country's needs.	Digital tools are increasing patient engagement through direct patient-provider communication, instant messaging apps, telemedicine, and encrypted electronic records. AI-enabled technologies are just a few examples of digital integration in the medical tourism supply chain. Telemedicine over online video calls in pre-treatment diagnosis and assessment and post-treatment can be beneficial in that it lessens the strain on physical medical infrastructure and empowers patients to have consultations on a schedule and location of their choosing.
Medical tourism	Vietnam possesses many of the necessary qualities needed to develop inbound medical tourism, such as highly skilled professionals, yet the industry remains in its early days. Vietnam has rapidly developed its private hospital networks, some of which achieved international standards such as Joint Commission International (JCI) accreditation. Nevertheless, building trust with patients will take more time. The adoption of digital health will help accelerate the development of patient trust by increasing transparency and converging domestic care standards with the best international practices.	Bringing patient consultations into a digital setting can improve clinical outcomes and lower costs for Vietnamese patients. Clinicians will have access to powerful new tools to longitudinally track health outcomes and make more personalised recommendations.

Telecom Infrastructure: Connectivity

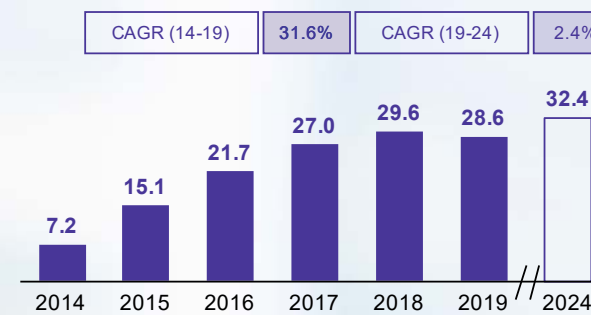
Telecom infrastructure

Mobile development

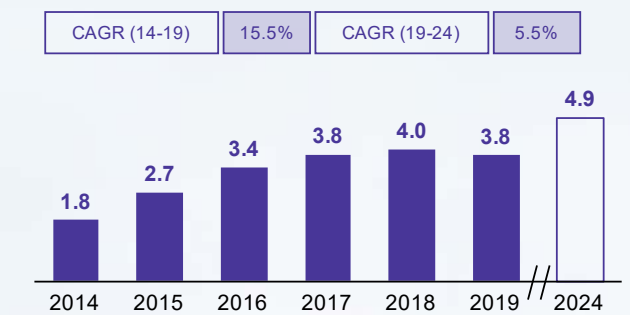


Smart phones

Smart phone sales volume (million)



Smart phone sales value (USD billion)

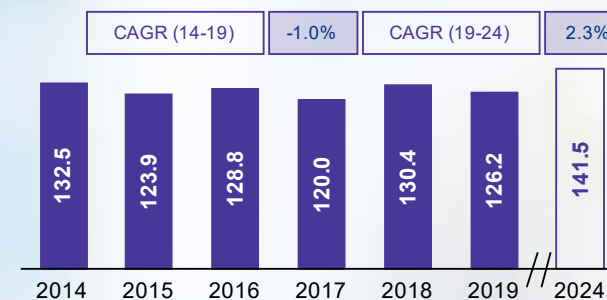


Key observations

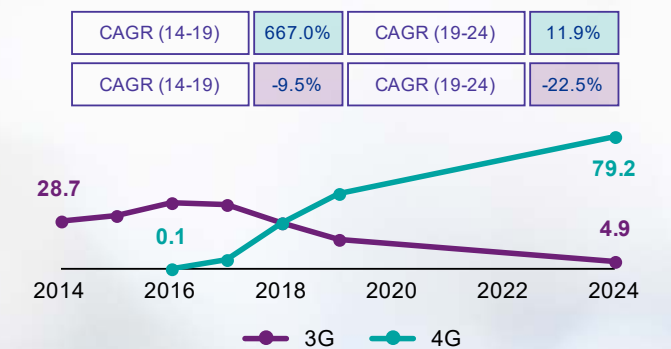
Overall, the market of smart phones has experienced rapid growth over the past five years (nearly 32% per annum), and is on track to reaching a saturated status in the next five years. While growth is expected to slow down, the demand for new products will continue to drive the market.

Mobile-cellular telephone subscriptions

Mobile-cellular subscriptions (million)



3G and 4G subscriptions (million)



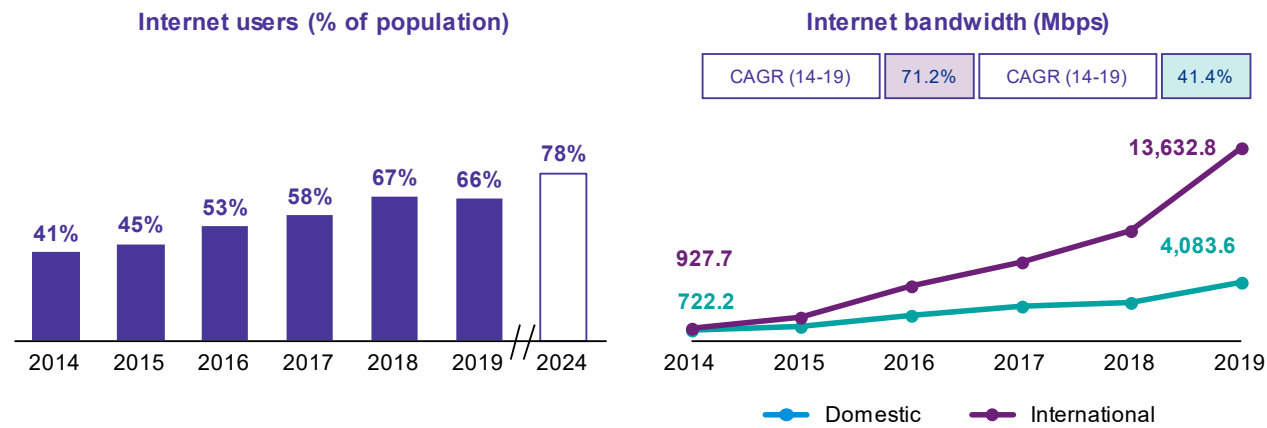
Key observations

Along with the rise of smart phones, the number of mobile-cellular subscriptions is expected to increase steadily in the next five years. This is driven by the surge of 4G since 2016 and 5G (estimated to launch in 2020), both of which will replace the older generations 2G and 3G.

Source: Ministry of Information and Communications, Fitch Solutions

Internet and broadband infrastructure

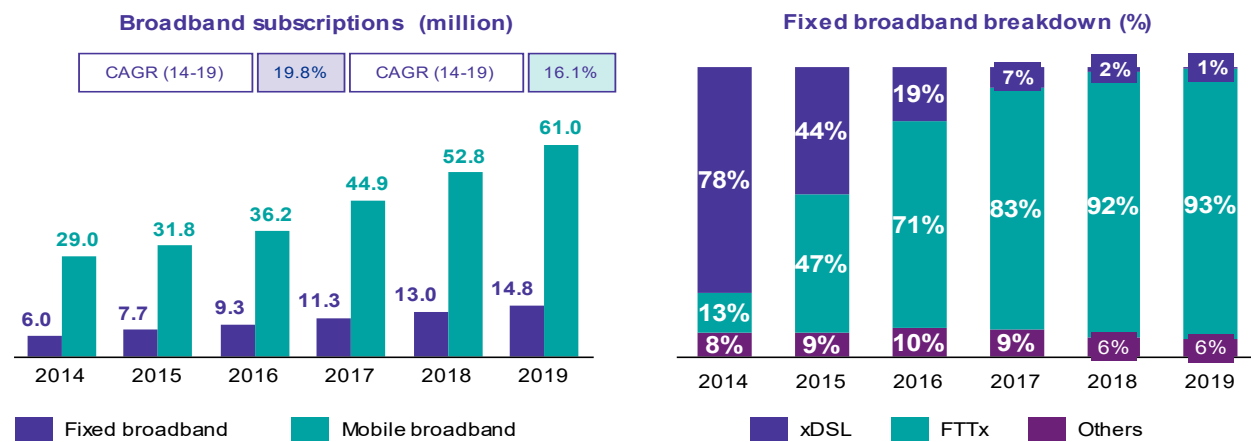
Internet development



Key observations

The internet has become an integral part of Vietnamese people's life, reflected upon its increase in the internet penetration rate (66% of the total population as of 2019). Combined with the expansion of internet bandwidth (both domestically and internationally), this lays the groundwork for digital development across all sectors in the country's socio-economy.

Broadband subscriptions



Key observations

Broadband infrastructure in Vietnam has seen rapid changes since 2014, with a significant increase in both fixed and mobile broadband. In terms of fixed broadband, the more modern FTTx has started to take over the traditionally dominant role of xDSL technology since 2015. This will further enhance the adoption of digitalisation in Vietnam in forthcoming years.

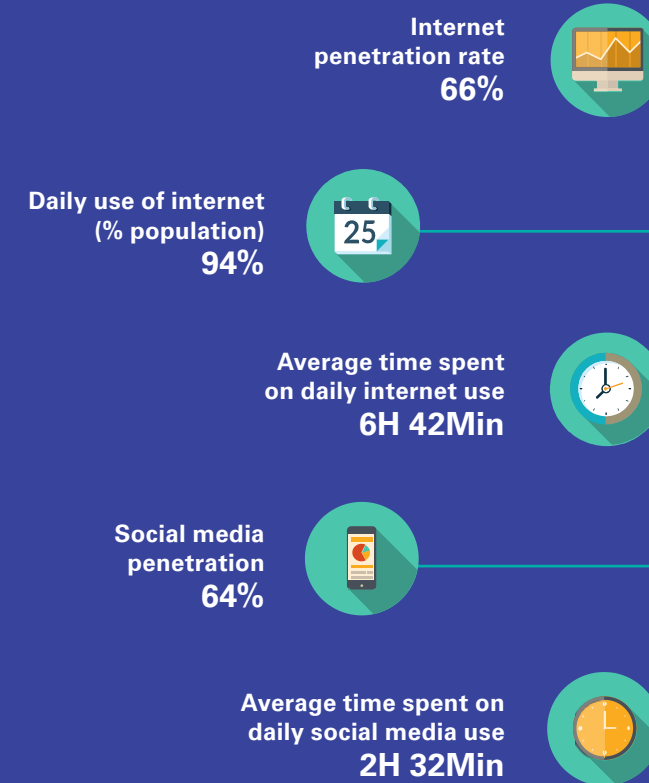
Source: Ministry of Information and Communications, Fitch Solutions

Implications to digital health

Indicator	Issue	Implication
Telecom infrastructure	Telecommunication infrastructure has grown significantly over the past five years across both internet and mobile sectors.	The continuous improvement of Vietnam's telecommunication infrastructure enables the country to become better positioned to adopt digital health solutions. Telehealth, consumer health electronics, and electronic health records will have a solid foundation to continue to grow in the future.

Internet usage trends in Vietnam

Overview of internet usage and mobile



Source: We Are Social, Hoosuite

Implications to digital health

Indicator	Issue	Implication
Internet usage	Daily usage of internet in Vietnam has become increasingly prevalent. On average, an individual spends nearly 7 hours on the internet every day, nearly half of which are on social media.	The widespread popularity of internet and social media, combined with the relatively young population, will foster a rapid adoption of new communication technologies. In the context of digital health, this will open up more opportunities for telehealth, consumer health electronics, as well as healthcare Big Data and AI applications in Vietnam.

Digital health ecosystem



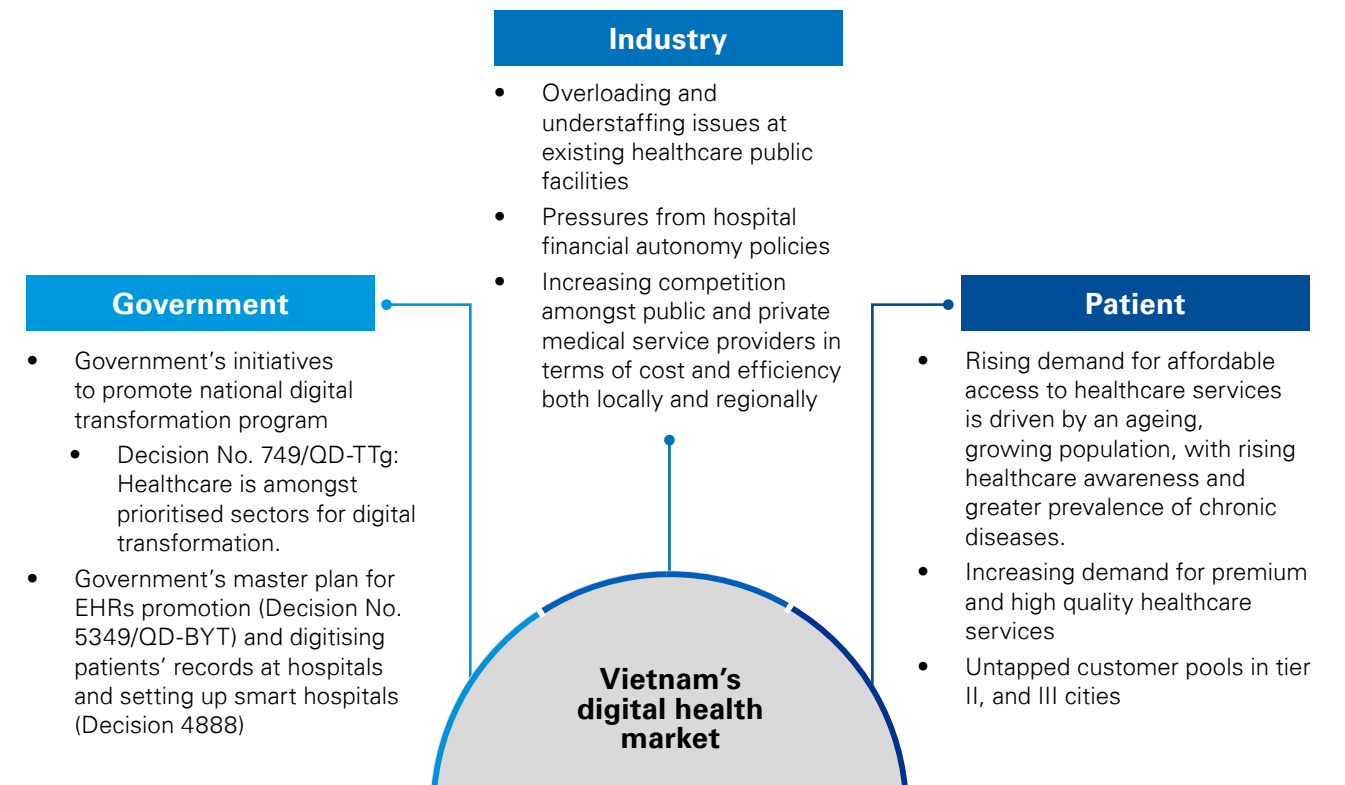
Key drivers impacting the digital health market in Vietnam:

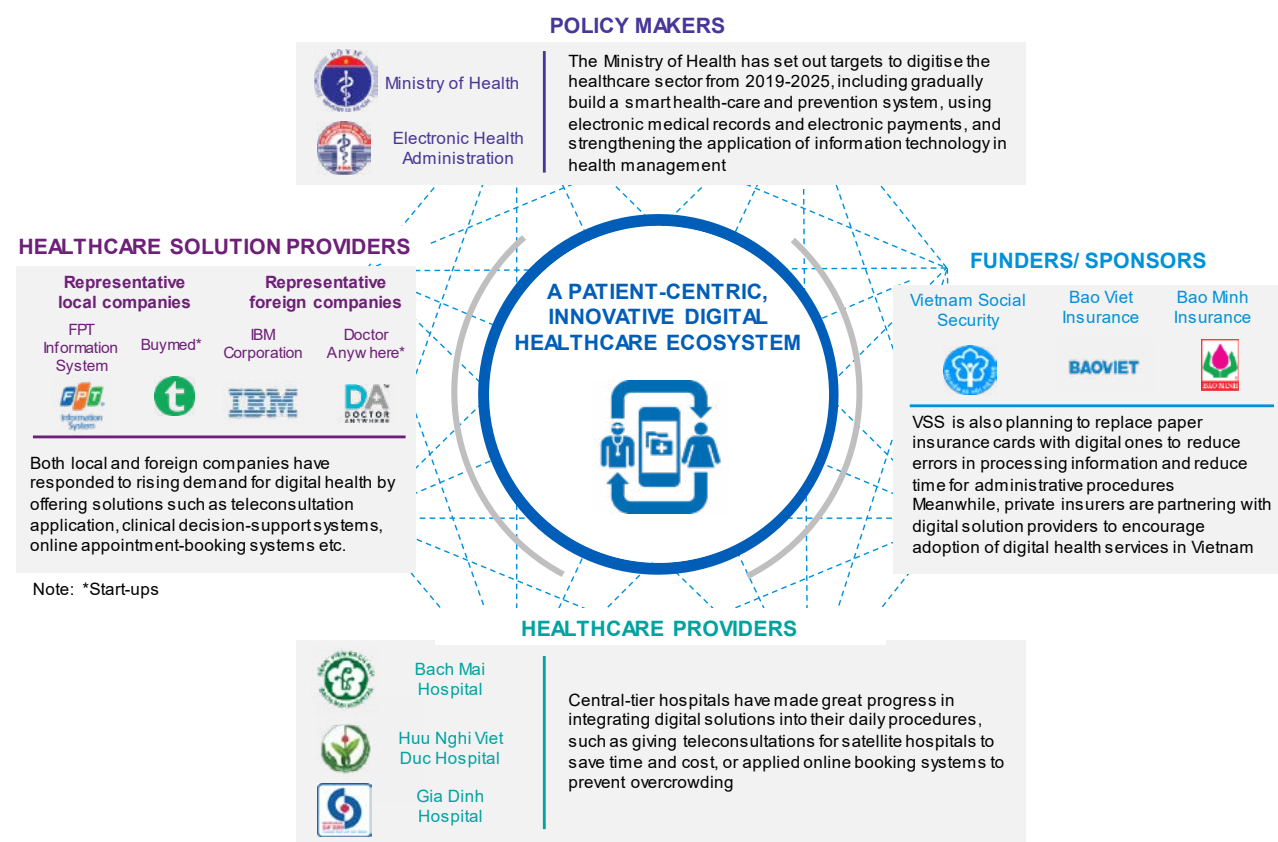
Overview of digital health market in Vietnam +

Vietnam is now laying the foundation for a smart healthcare industry that includes disease prevention, medical examinations and treatment, and health management. Under Decision 4888 issued on 18 October 2019, the MOH set out a roadmap to digitise patient records at hospitals and establish smart hospitals. This is the beginning of an ambitious multidisciplinary journey that will benefit from access to the global industry's best practices.

Vietnam's digital health market can be divided into four main areas: Health Information Technology, Telemedicine, Consumer Health Electronics, and Healthcare Big Data & AI-based products and services. Currently, these areas are in the early stages of development. Specifically, most of the healthcare facilities in Vietnam still use paper-based

medical records for patients and disease tracking. Since June 2018, Vietnam has set a clear target that, by 2025, 95% of Vietnamese population will have Electronic Medical Records. Meanwhile, telemedicine solutions remain under a "pilot phase", and the application of AI and Big Data in the healthcare sector remains limited.





Source: Tradepress, Ministry of Health, Hospital websites

Besides the government and associated organisations, private entities in various sectors like telecommunications, IT, and insurance are also participating in the digital health space. This creates a cooperative ecosystem between the government and private players that will drive innovation and develop the sector.

Even though digital health remains in its early stages in Vietnam, it has attracted the participation of both local and foreign start-ups, and conglomerates. Notable local conglomerates include FPT, VNPT, and Viettel, which are leading telecommunications firms in the country. These firms offer end-to-end solutions in Vietnam, aiming to support hospitals in managing daily operations with real-time data, digital signature integration, and digital medical records solutions. Foreign players are also present in the sector. For instance, Microsoft and its cloud services are used by hospitals and modern pharmacy chains, and IBM's Watson is used for Oncology by some domestic institutions.

Start-ups in Vietnam are operating at a smaller scale. Doctor Anywhere, JioHealth, and Mydoc are international start-ups that offer digital consultations and scheduling systems for in-clinic appointments or at-home visits. Doctor Anywhere and Mydoc have

also partnered with Bao Minh Insurance and Bao Viet Insurance respectively to further encourage digital adoption in Vietnam. Notable local start-ups include: VieVie Healthcare, an online platform that enables patients to book appointments and post their concerns or questions in-app, which will be answered by qualified doctors; and BuyMed, which offers a secure wholesale channel for pharmacies in Vietnam.

Digital health solutions have also been well-received by hospitals through improved operations management and data storage. Healthcare digitalisation continues to facilitate the enhancement of operational efficiency and medical outcomes in public hospitals. Notably, more than 92% of public hospitals have outsourced to local IT companies such as FPT, Link Toan Cau, Dang Quang and OneNet to develop digital solutions for their facilities.

Compared to public hospitals, private facilities in Vietnam have relatively more advanced health management systems. Large hospital chains such as Hoan My, and Vinmec Hospital have upgraded their digital infrastructure to manage their branches. Furthermore, in order to provide the best services, many foreign-invested hospitals are focusing on investing in digital platforms.

Key players:

Top 5 Central Hospitals:

Hospital name	Type of hospital	Number of beds
Bach Mai Hospital	General	1,900 beds
Cho Ray Hospital	General	1,800 beds
K Hospital	Oncology	1,800 beds
Huu Nghi Viet Duc Hospital	General	1,200 beds
University Medical Center Ho Chi Minh City	General	1,000 beds

Top 3 conglomerates in Digital Health:

Digital health conglomerate	Digital health services	Key partners
FPT	Health information tech and AI & Big Data	200 hospitals including Bach Mai hospital and Cho Ray hospital
VNPT	AI & Big Data and Telemedicine	168 hospitals including Bach Mai hospital and Huu Nghi Viet Duc hospital
Viettel	Telemedicine	200 hospitals including K hospital and Bach Mai hospital

Top 5 Start-ups:

Start-up	Digital health service	Key partners
Doctor Anywhere	Telehealth/ telemedicine	Saigon Eye Hospital, DoLife Hospital, Thu Cuc Hospital
JioHealth	Telehealth/ telemedicine	Bao Viet Insurance
Mydoc	Telehealth/ telemedicine	Bao Viet Insurance
VieVie Healthcare	Telehealth/ telemedicine	Medicare, Hoan My Hospital
BuyMed	Telehealth/ telemedicine	7,000 pharmacies and clinics



Key areas in digital health

Health information technology



Key development milestones

Vietnam's health information system is making initial progress:

Most medical institutes in Vietnam still use paper-based medical records for patients and diseases. Since June 2018, Vietnam has set the goal to promote Electronic Health Records (EHRs). Under the governmental plan for the deployment of EHRs (Decision No. 5349/QD-BYT), at least 80% of people in provinces and central-affiliated cities will have EHRs in the near-term, reaching a target of 95% of population nationwide by 2025. Currently, there are 24 provinces implementing EHRs in Vietnam, six of which officially considered the "piloting EHR provinces". Emerging EHR providers like FPT.eHospitals are quickly gaining traction in Vietnam. However, Vietnam data localisation requirements may create challenges for providers that operate on a global cloud.

Opportunities

The Vietnamese government has acted swiftly to embrace Industry 4.0, extending this to the digitisation of healthcare. The MOH has encouraged hospitals to apply technology to their operation in order to enhance efficiency. As former Minister of Health Nguyen Thi Kim Tien states:

“ Together with the achievements made over recent years, Vietnam continues the reform of the healthcare system. We want to learn from countries in the development of the healthcare sector and **encourage private investment into this path,** ”

Additionally, as Vietnamese hospitals transfer to a more digital system, there is an opportunity for UK digital service providers to help manage the complexity of data that this transformation creates.

Challenges

Several challenges slow the process of hospitals advancing health information technology and digitisation, namely:



Financial pressures: Hospital management software and the broader information technology infrastructure is expensive.



Lack of investment in human resource training: all healthcare professionals will need to be trained in the use of digital systems. This may be a significant hurdle in rural or remote regions of the country.



Concerns over data privacy and cyber security laws to protect patient data.

Case study analysis

FPT.eHospital. The solution consists of 22 functional modules and is divided into five main groups:

- 01 management of medical examination and treatment;
- 02 administration and office management;
- 03 laboratory management;
- 04 image transfer, processing, and storage;
- 05 and secure data storage.

The medical management solutions have helped reduce information errors, while integrating patient information into a system that is readily accessible to medical professionals. The administrative management solutions in FPT.eHospital have also begun transforming old hospital management systems. As an example, instead of using separate applications, hospitals can now utilise vertical management applications integrated in to FPT.eHospital, which manages the administration processes from front-office patient care to back-office resource management.





Key development milestones

Telemedicine solutions are under "pilot phase":

Adoption of telemedicine in urban and rural areas is still on a small scale. During the COVID-19 pandemic, Vietnam's Ministry of Health piloted telemedicine to encourage social distancing and reduce nosocomial infections. Specifically, on 24 April, the Ministry of Information and Communications, the Ministry of Health, and the Voice of Vietnam signed a Memorandum of Cooperation to provide a free support package for online telemedicine during the COVID-19 pandemic. For access, people can download the VOV Bacsi24 app from Google Play or Apple Stores, create an account, and follow instructions. In addition, the government has implemented a pilot program with Hanoi Medical University Hospital linking it with several satellite hospitals, including Muong Khuong General Hospital (Lao Cai province), Ha Tinh City General Hospital (Ha Tinh province), commune health stations, and patient homes. This program is expected to serve as a steppingstone to the wider adoption of telemedicine in Vietnam.

Opportunities

The plan to expand the use of telemedicine is expected to pave the way for further hospital adoption. The government is encouraging investors to participate in the development of digital health in Vietnam, including telehealth.

Although the capacity of telehealth service is currently limited to basic consultations in Vietnam, it is still expected to improve health conditions in underserved geographical areas. Going forward, opportunities for telemedicine applications in Vietnam exist across numerous areas including remote patient diagnosis and prescriptions, remote patient monitoring and consultation, and even surgical care and telecardiology.

“Telemedicine consultation is accompanied by simple medical devices such as thermometers, blood pressure meters, heart rate meters, diabetes meters, and COVID-19 tests will be developed soon. With technology advancements, these medical devices will become cheaper and will facilitate healthcare development at home,” said the Minister of Information and Communications, Nguyen Manh Hung.

“Vietnam has advantages such as powerful telecoms and IT groups, nationwide infrastructure, and resources which can develop infrastructure to speed up digital transformation in important sectors like education and healthcare,” Hung elaborated. “The country needs more platforms, and so, we call on the business community to join the development.”

Challenges



Lack of clear regulation framework for telemedicine

MOH issued Circular 47 in 2017 regulating telemedicine in Vietnam. This circular, in effect since February 2018, allows doctors to offer telemedicine services to patients, subject to certain requirements including IT infrastructure and licenses. Circular 47 also provides guidelines for a range of telemedicine activities such as telemedicine consultation, tele-radiology consultation, remote consultation, remote surgery consultation, and telemedicine technology transfer training. This is the only regulation governing telemedicine activities so far. In addition, there is also no regulation on reimbursement schemes from Vietnam's Social Security, or private insurance providers for telemedicine. Telemedicine is a new area, and as such, the regulatory framework is catching up with business needs.



Underdeveloped infrastructure, especially in rural areas

The limitation in synchronising digital technology of many hospitals, especially tier II and III hospitals is amongst the key challenges for the implementation of telemedicine in Vietnam. Many older patients and people living in remote areas have limited access to technology, thus require certain level of additional infrastructure before they can leverage digital health.



Challenges for changing behaviours of medical professionals and patients

“It is not the technology but the required changes in habits of people and medical professionals that will challenge the shift from traditional consultation and treatment to online services”, said Mr. Nguyen Manh Ho, CEO of Viettel Solutions.

Case study analysis

Doctor Anywhere (DA)

Doctor Anywhere is a Singapore-based start-up that has operated in Vietnam since the end of 2019. The company serves more than one million users in Vietnam, Singapore, and Thailand. It offers teleconsultation services in internal medicine and paediatrics through a smartphone application. The patient's records, prescriptions, and related papers will be emailed to the patient after the consultation session. In addition, the prescribed medicine can also be delivered to the patient upon request through partnered pharmacies. The company is currently delivering 350 tele-consultation sessions per day in Vietnam due to COVID-19, a 600% increase comparing to 60 sessions per day before the pandemic. With Doctors Anywhere, patients are able to receive consultations from doctors currently working in leading hospitals in the country, such as Bach Mai Hospital and Cho Ray Hospital.

Doctor Anywhere has developed partnerships with nearly 100 hospitals and clinics, 50 pharmacies, and 100 doctors from leading hospitals to meet the rising demand of its users.

BuyMed

BuyMed is a medical start-up in Vietnam that seeks to tackle counterfeit drug issues. The company operates Thuocsi.vn, a pharmaceutical distribution marketplace, and aims to simplify pharmaceutical distribution system in Vietnam and the rest of Southeast Asia. The platform works by verifying suppliers and reducing the risk of medications making entering the grey market. Since initial feedback on Thuocsi.vn have been positive, BuyMed plans to add new product lines including medical devices, supplements and medical services to become 'one-stop shop for all users' healthcare needs.

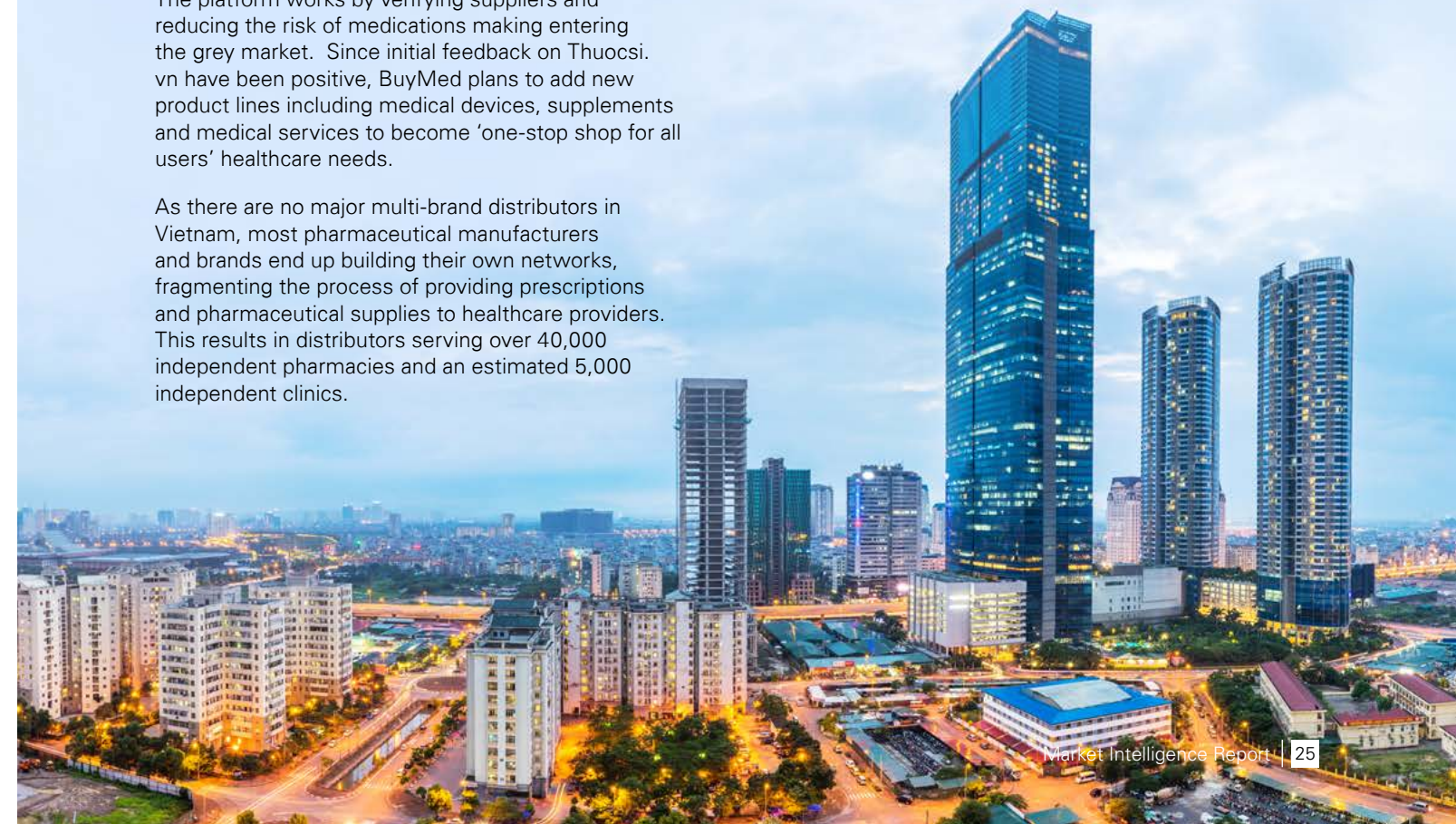
As there are no major multi-brand distributors in Vietnam, most pharmaceutical manufacturers and brands end up building their own networks, fragmenting the process of providing prescriptions and pharmaceutical supplies to healthcare providers. This results in distributors serving over 40,000 independent pharmacies and an estimated 5,000 independent clinics.

Currently, BuyMed has an extended network of 700 verified suppliers, distributors, and manufacturers, serving over 7,000 healthcare providers. Thuocsi.vn and BuyMed have both seen significant growth as a result of COVID-19.

Jio Health

Jio Health is a telemedicine app that enables on-demand access to healthcare services such as primary care and chronic disease management. By providing a comprehensive ecosystem through its mobile application, customers can talk to doctors and nurses 24/7, and schedule appointments with preferred doctors as well as monitor and download their own medical records such as clinical notes, test results, and prescriptions. In addition to this, the app can manage the records of direct family members, stored safely in cloud. Users can access their health records electronically at any place and time through Jio Health's mobile application and possibly purchase prescriptions on the application as well. Payment methods are also simplified and safe on JioHealth's application, ranging from cash to electronic wallets.

Since its launch in 2014, an estimated 200,000 people have registered on the application.





Key development milestones

As Vietnam develops, people, especially the country's urban youth, are integrating health technology into their lives, driving wearable fitness and activity tracking technology. 2.3 million people in Vietnam now own some forms of wearable tech, including Fitbits, Apple Watches, or Samsung Watches.

These devices, however, have greater potential utility than just fashion or fitness accessories. According to a survey conducted by Rakuten Insight, the health monitoring is the primary reason why Vietnamese consumers purchase wearable tech. As such, many corporations like Apple & Phillips have announced plans to focusing on medical wearable tech that focus on heart rate, and sleep quality.

Opportunities

Wearables have potential to revolutionise how people monitor and maintain their health, and act on personalised health data. Checking one's vitals on a regular basis for many in Vietnam requires a visit to a local hospital or clinic, which contributes to crowding and additional stress on already strained healthcare practitioners, especially in remote or rural areas. Remote patient monitoring solutions from providers such as Phillips Health and Omron HeartGuide are allowing people to communicate with their doctors and track critical information from the comfort and convenience of their homes. This will free-up bed space, lower the cost of care, and allow for earlier discharge of low-risk patients.

Challenges

However, wearable tech in Vietnam is not as common as it is in other markets. According to the Rakuten Insight survey, 57% of respondents claimed that their smartphone was sufficient in monitoring their health and they did not see a reason to add a paired wearable. This may limit the types of data that can gathered and analysed.

It should also be noted that wearables can be expensive, ranging from USD \$30 to more than \$300, while the average monthly salary of a worker in Vietnam is approximately \$265. This is particularly true for rural workers, who generally earn less but have much to gain from better access to health monitoring.

Case study analysis

As technology becomes more integrated into daily life, the adoption rate of wearables such as remote patient monitoring devices and smartwatches with Vietnamese consumers will increase. These tools, among others are now utilised by clinicians as part of standard treatment regimens. This care standard is coming to Vietnam and will help alleviate crowding and resource constraints and improve overall treatment quality through more accurate and timely data.

Other markets in Southeast Asia are also quickly adopting wearables and remote patient monitoring technology to improve clinical efficiency, lower costs, and drive better health outcomes. As an example, Singapore's IoT (Internet of Things) solutions company KaHa recently partnered with medical solutions provider EasyCare and iDOC Clinic to launch remote patient monitoring for primary care patients. The partnership will leverage wearables and near-patient devices to track health statistics such as sleep quality, blood pressure, heart rate, and activity level, and provide feedback and activity modification suggestions to users through a dashboard. As well, data collected through the devices will be available to the patient's attending physician, which will assist with ongoing monitoring, and help improve the accuracy of future diagnoses.





Key development milestones

Vietnam is in the nascent stages of its use of Artificial Intelligence (AI) and Big Data in healthcare: only a few hospitals out of nearly 1,400 hospitals currently have any form of AI. Some notable hospitals pioneering AI applications in diagnosis and treatment, are the People's 115 Hospital and Gia An 115 Hospital. Both of which have adopted the Stanford University "RAPID" system to diagnose and treat strokes. In cancer diagnosis and treatment, three Vietnamese hospitals are leading the way in terms of digitisation, namely the National Cancer Hospital, Phu Tho General Hospital, and HCMC Oncology Hospital. These three hospitals were selected to participate in the "IBM Watson for Oncology" AI application pilot.

Currently, there is no legislation specifically governing Big Data and AI health applications, apart from those detailed in the 2019 adoption of Decision 4888, which is detailed in the regulations section of this report.





Opportunities

AI can be used in various ways to improve healthcare services including, day-to-day tracking, early detection of diseases, diagnoses, and treatment planning. As AI and Big Data services are still underdeveloped in Vietnam, there might be potential for UK providers of innovative solutions in almost every application of AI.

AI and Big Data applications are receiving strong support from the central government. It is hoped that these applications will drive the development of digital healthcare infrastructure and enable new R&D and enhance healthcare delivery capabilities. However, further deregulation and clarification of investment incentives will help to motivate investors to bring much needed capital, technology, and know-how to Vietnam.

Challenges

Potential barriers to wider coverage of AI & Big Data applications include:

-  **Accuracy of patient data interpretation/ standardised data**
-  **Availability of qualified health care professionals that can use AI products**
-  **Quality and accuracy of current diagnoses that AI would be based on**
-  **Might not be cost-effective especially in smaller regions**

Case study analysis

FPT.eHospital 2.0

Following its 2018 product update, FPT.eHospital 2.0 includes patient care technology such as artificial intelligence (AI), Big Data analytics, cloud computing, and remote patient monitoring and mobile device integration. By assisting hospitals to manage their operations with real-time data, Electronic Medical Records (EMR), and digital signature integration, FPT. eHospital 2.0 aims to create paperless hospitals, and drive efficient and accurate medical examinations and treatment processes. The company hopes its platform will improve hospital capacity and lower the incremental cost of care through business process automation.

Doctors benefit from FPT.eHospital 2.0 as they can monitor patients' health remotely, reducing risks and errors by automatically checking for prescription duplications and warnings. In addition, virtual assistants like smart chatbots can assist doctors/nurses in completing daily tasks such as checking on patients and referencing health profiles.

In real-world application, FPT.eHospital 2.0's shortens patients' registration times. In published use cases, the average time for medical visit registration has been reduced from 4 minutes to 1 minute, while patients who already had a pre-arrival registration are processed in 15 seconds. Patients can make appointments on the hospital's website, virtually view their health profiles, pay hospital fees, find additional information via smart chatbots, and use calendar reminders for future appointments.

In Bach Mai Hospital of Hanoi, the use of FPT. eHospital 2.0 has allowed daily arrivals to reach an average of 9,000 of patients, an increase of approximately 20% compared to the previous year.

IBM Watson for Oncology

Vietnam's Ministry of Health has approved the use of IBM's Watson, an Artificial Intelligence (AI) system that offers cancer treatment options based on details in a patient's medical records, for oncology diagnosis and treatment.

There are currently three hospitals in Vietnam that use IBM Watson to assist treatment of 13 types of cancer, namely: HCMC Oncology Hospital, Phu Tho General Hospital, and National Cancer Hospital (K Hospital). Vietnam's Ministry of Health noted that in its medical evaluation, the IBM Watson for Oncology software did improve performance in cancer treatment, encouraging many other hospitals to adopt the technology.

Pulse by Prudential

In early May 2020, Prudential Vietnam launched Pulse, an AI-powered health management app, and already has more than two million downloads. This app was developed through Prudential's partnership with UK-based health technology and services company Babylon: Babylon's existing AI technology is made available for current Prudential Asia customers. The app uses AI-powered self-help tools and real-time information to empower users to take control of their personal health and wellness. In the app, users can check symptoms through the Babylon-powered Symptom Check function and consult with healthcare professionals without going to a medical facility. When users are ready to visit a healthcare facility, the application can provide information and make an appointment.

The app launched in Malaysia in 2019 and will be rolled out across 11 Asian markets. According to Prudential, the launch of Pulse is part of the company's region-wide strategy to provide affordable and accessible healthcare to everyone by leveraging digital health and partnerships.



Opportunities for UK companies



Thematic Area	Opportunity
Health Information Technology	The Vietnamese government is already implementing the digitisation of healthcare: the MOH has encouraged hospitals to apply technology to their operation to increase efficiency. Vietnam has witnessed progress in implementing EHR systems. As of 2019, 14 public hospitals have systems in place, and the government aims to reach 95% by 2025. The adoption will drive data and image management opportunities for hospitals as they transition to digital.
Telemedicine	The government's plan to expand the use of telemedicine is expected to pave the way for adoption. International investors are encouraged to participate. Currently, telehealth services are limited to basic consultations but can be expanded to numerous areas, including remote patient diagnosis and prescriptions, remote consultations, especially for satellite hospitals.
Consumer Health Electronics	Wearables can potentially revolutionise how people monitor and maintain their health, and act on personalised data. For many, checking vitals require a trip to a local hospital, leading to overcrowding. As such, through wearables' remote tracking, it can help decrease overcrowding of hospitals as well as reduce the amount of time a patient spends in the hospital.
Healthcare Big Data and AI	AI and Big Data applications are receiving strong support from the central government. It is hoped that these applications will drive the development of digital healthcare infrastructure and enable new R&D and enhanced healthcare delivery capabilities. However, the increase of Big Data and AI adoption in healthcare could be accelerated with investment incentives and further deregulation.

Digitisation of Vietnam's health ecosystem is in its early stage of development and has significant room to grow. There is a clear and growing need to improve patient access to care, lower costs by automating administrative procedures, and ensure quality of care across the health system. Digital innovations such as blockchain, cloud-based computing, virtual health assistants, artificial intelligence, process automation, and the Internet of Medical Things can empower Vietnam to achieve its goal of quality "health for all", while maintaining the government's commitment to sustainable health financing. The realisation of these goals will drive business opportunities, such as:

- Telemedicine has the potential to reduce overcrowding in most public hospitals and provide healthcare access to an ageing, income-diverse, and geographically dispersed population. Opportunities for UK organisations exist across the entire spectrum of telemedicine, including remote patient diagnosis and prescriptions, remote patient monitoring and consultation, telemedicine in surgical care, and telecardiology.
- Automated solutions that empower individuals to access quality care on their own terms, such as mobile health, online bookings and health information platforms, and AI-enabled personal health assistance will guide users through the patient journey and direct resources. These technologies can also integrate with Hospital Management Systems (HMS) to help alleviate overcrowding by guiding patients to facilities with lower utilisation or local clinics rather than central hospitals.
- Clinical care applications include cutting-edge AI and cloud-based diagnostic and treatment tools. Such applications will facilitate timely diagnoses and treatment decisions in hospitals, improving quality of care and patient outcomes. In rural areas, digital systems may enable doctors to make better informed triage and treatment decisions. This will lessen the need for medical related travel, which will rationalise use of central hospitals to focus care for the sickest or most complex patients and possibly slow the outbound medical tourism trend.







Digital health regulation

Decision 4888/QĐ-BYT - National agenda for e-health adoption

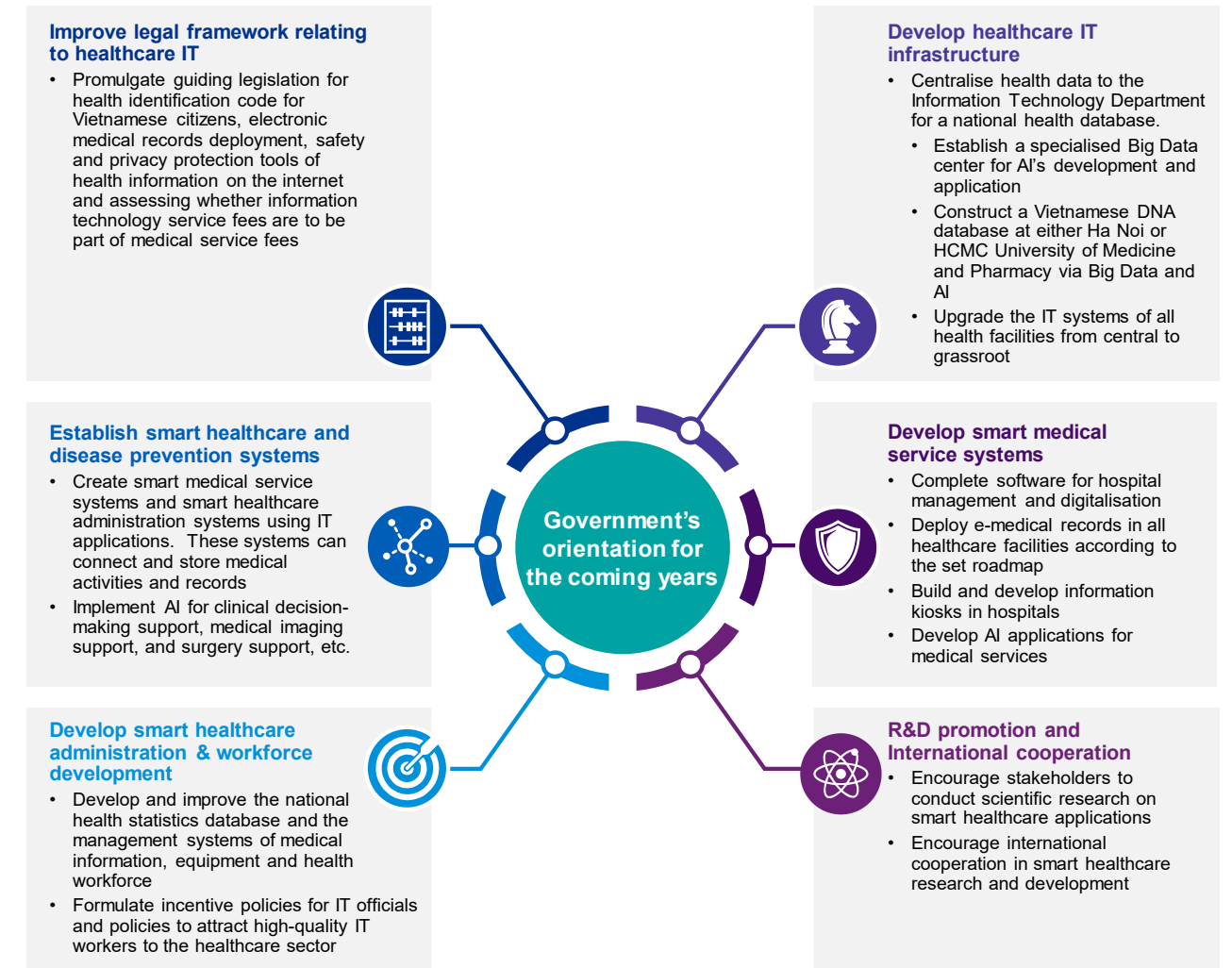
Digital health in Vietnam is guided by several key policy and communications, namely:

- 01 Circular No. 53, 2014:** Clarifies the provision of online medical services;
- 02 Directive No.16, 2017:** Sets initial guidelines for digital health regulation;
- 03 Circular No. 54, dated 2017:** Guides IT applications in healthcare facilities;
- 04 Circular No. 49, 2017:** Describes permissible telemedicine services;
- 05 Decision No. 4888, 2019:** Defines Smart Health Information Technology, and outlines development goals for a healthcare industry 4.0.

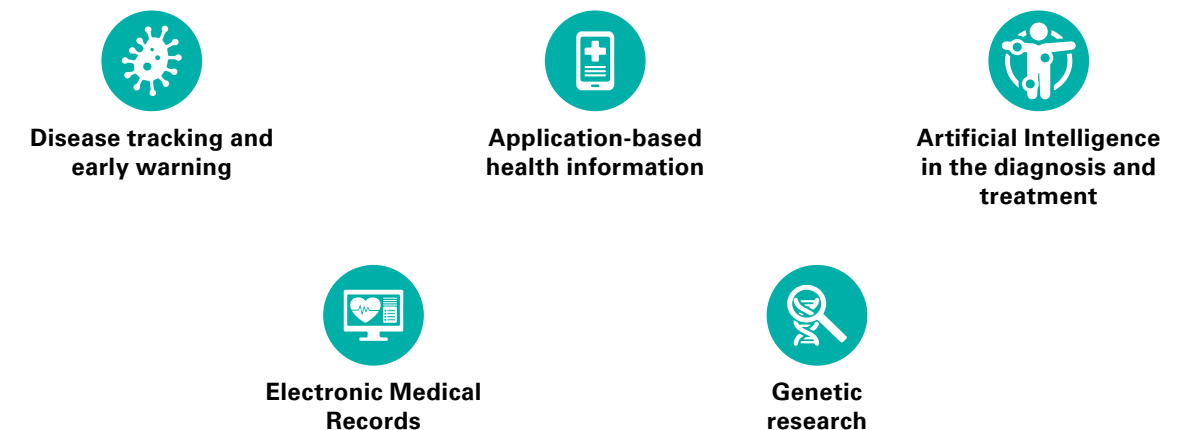
Current government accomplishment milestones for digital health:

- 
Increasing utilisation of IT application in medical services
 - Extend health information systems to “most” of the hospitals in Vietnam.
 - Achieved broad adoption in larger cities including Hanoi, Danang, and Ho Chi Minh City for the use of electronic medical records and cloud computing.
 - The MOH, in coordination with Vietnam Social Security (VSS), has linked 99.5% of the medical facilities in Vietnam under the medical supervision system of VSS.
- 
Development of Telemedicine system and Internet of Medical Things (IoMT)
 - Vietnam’s telemedicine has developed to connect central hospitals with lower tier hospitals. The project prioritises the identification and tracking of patients through bar code, sensors, and RFID whilst in hospitals and clinics.
- 
Utilisation of robots in healthcare
 - Robots are now being utilised in the health industry, notably the Da Vinci robot for endoscopy, the Renaissance robot for spine surgery, the Makoplasty robot for knee and hip joint surgery, and the Rose robot for neurosurgery.
- 
AI deployment
 - In 2018, AI was initially deployed as part of a cancer treatment “cognitive computing” pilot program at Phu Tho General Hospital and Quang Ninh General Hospital. Other AI initiatives including the application of machine learning and cognitive computing and clinical decision making, are under review and early stage development.

(i) Government digital health development priorities



(ii) Investment opportunities will emerge to accelerate and enable the government’s ambitious digital health vision. The government has indicated support for international corporations in digital health, particularly in areas concerning:



Cybersecurity Law and Regulation



Requirements for data protection in Vietnam are detailed in the Law on Network Information Security (“LNIS”), which came into initial effect in July of 2016. The governing scope of the law includes network information security activities, the rights and duties of agencies, organisations, and individuals to secure network information, protect civil cryptography, and achieve network technical information security standards. The law is applicable to Vietnamese agencies, domestic organisations and individuals, as well as foreign organisations and individuals directly involved in or related to cyber-information security activities in Vietnam. Overall, the LNIS and its guiding legal instruments are drafted in broad language and are still somewhat open to interpretation by the relevant enforcement authority. It is also worth noting that data privacy rules are also governed by parallel sectoral laws (including the Law on E-transactions, Law on Protection of Consumers’ Rights and Interests, Law on Competition, Law on Cybersecurity, and applicable Penal Codes).

Personal data is, broadly speaking, defined in Vietnam as any information that can identify an individual. This includes information such as one’s name, date of birth, address, telephone numbers, identification number, or even email address.

It is important to note the LNIS also provides two primary exemptions from data protection rules: firstly, the processing of personal data carried out by a competent authority or on the decision of a competent authority based on legal grounds, and secondly, the processing of personal data to ensure national security such as protecting national defence, maintaining public order, or meeting non-commercial objectives. It is important to seek legal clarification before undertaking any business activity in Vietnam that involves the collection or processing of information that could be considered personal data.

In addition to the LNIS-related rules outlined above, organisations participating in Vietnam’s digital healthcare sector also need to be aware of and comply with applicable data localisation rules as set out in the 2019 Law on Cybersecurity (“LCS”). This law states that any party collecting, exploiting (using), analysing, or processing personal data, or data generated by users in Vietnam, must store such data in Vietnam for a period stipulated by the government. It is still unclear if localisation will require all data to be stored exclusively within Vietnam, or a domestic backup of data in an approved facility will satisfy statutory storage requirements. It is expected that these matters will be clarified in future government-issued implementation guidelines. This ambiguity poses a compliance challenge for businesses and needs careful consideration before beginning a digital health business venture.

Big Data / AI-based medical devices



Following the introduction of Decision 4888 framework, there is currently no additional legislation governing the application of Big Data and AI in healthcare. Given the stated importance of Big Data and AI to the government in realising its digital transformation target, further implementation guidance is expected in the coming years.

Potential hurdles for UK companies: legal perspectives on procurement process



Despite persistent encouragement from the government, healthcare Public Private Partnerships (“PPP”) remains underdeveloped. Although health sector PPP was introduced more than 10 years ago as a mechanism to distribute investment risk, raise funds for needed projects, and open market access to the private sector, Vietnam has seen few large-scale successes. At time of writing, Vietnam has about 73 registered PPP health projects. Of these, only 15 projects reached pre-feasibility study development stage. Of these 15, six were implemented. This high project-attrition rate is likely due to the developing nature of governing legal frameworks.

Recent data localisation requirement may well further slow Vietnam’s PPP development. Most international healthcare providers utilise some forms of an encrypted cloud solution to link projects globally. Current ambiguities on compliance costs and requirements may slow interest from investors who may wait for further clarity. For foreign investors, there is an opportunity to close skills and finance gaps within public hospitals. To date, there have been few successful cases of this type of partnership.



Market access strategies for UK companies

Choosing the most appropriate legal structure for UK companies to enter the Vietnam market is an important decision that will impact establishment procedures, taxation, legal restrictions, and the overall business capabilities.

In order to establish a foreign-invested presence in Vietnam, companies must first carefully consider industry and scope of services for the Vietnam business, as well as potential company size. These considerations will have an impact on business licensing process.

The target size and complexity of business operations in Vietnam will determine if a locally registered company is needed. For many Small and Medium Sized Enterprises (SMEs), registering a Vietnam company may not be needed. Two popular alternatives that do not require a locally registered company include direct sales (i.e. "Direct Export Model"), and a Business Cooperation Contract ("BCC") model.

Top tips for UK companies:

- 01** Understand the local market relative to your company, and how your business model fits;
- 02** Understand the key regulations and restrictions, how they impact your business, how you need to adapt your operations to be compliant, the required legal structure, and required level of registered capital;
- 03** Identify local acquisition targets, and steps necessary to confidently complete the transaction;
- 04** Identify a local partner that leverages local presence, but does not expose you to commercial/ operational risk;
- 05** Identify how profits are repatriated to global operations, and how this impacts your tax liabilities.

Direct Export Model:

Under this Direct Export Model, a UK company will oversee Sales and Marketing activities either from the UK or another regional management office. The UK Company fills purchase orders by contracting directly with a Vietnamese customer, who will then be responsible for the importation and the customs clearance process. Vietnamese customers will remit the sales proceeds to the UK company through normal financial means (e.g., cash in advance, letter-of-credit, documentary collections, and open account). However, some disadvantages of this includes a lack of local language and time-zone differences, which poses challenges when it comes to after-sales support.

Key advantages of this model include direct access for UK companies without the need for intermediaries. This provides direct and central control and oversight of sales and distribution functions. However, given the lack of local presence, the company may have difficulties in capturing broader market opportunities, communicating with customers, and gaining needed local market insights. As well, corporate governance and procurement process requirements with some organisations may restrict this type of contractual relationship. This should be explored and clarified before a company begins its market entry process.

Key considerations:

- 01** What is the unique selling point?
- 02** How to deliver on-site installation or after-sale services (under time zone differences and in local language)?
- 03** Who is responsible for logistics and how will it be done?
- 04** Is the exporter willing to localise the product? (e.g. incorporating Vietnamese language)

Business Cooperation Contract ("BCC")

A business cooperation contract (BCC) is between a UK company and a local partner to distribute products. As mentioned above, this model saves time and resources as there is no need to set up a legal entity in the country. The appeal behind a BCC contract is that the overseas company can leverage the local entity's market insights, while the Vietnamese company can benefit from its partners knowledge, financial resources and technology. As well as that, investors can participate independently to exercise rights and perform contractual obligations.

This structure is not without its limitations. One of the main disadvantages of a BCC stems from the lack of a local legal entity to resolve business-related issues. This challenge is sometimes compounded by the fact that many BCCs in Vietnam have unclear third-party contract implementation duties. It is therefore critical for UK companies to consider all eventualities when contracting through BCC in Vietnam.

Key considerations when choosing a potential partner:

- 01** Established business footprint in Vietnam (North/South/Central);
- 02** Historical experience and capability in the specific business areas (records of business cooperation with other partners if any);
- 03** How partner compares to other companies in this business area? (Key competitive advantages against its peer companies in the sector or business area);
- 04** How extensive is their network? (are they a part of a bigger company? Relationship with relevant stakeholders in the sector?);
- 05** What other projects have they been involved in?

Other paths to market in Vietnam



Representative Offices ("RO")

Representative Offices provide support to the parent company or its regional office by functioning as a liaison, conducting market research or promotional activities or managing domestic projects on behalf of the parent company. For many companies in their first stages of entering Vietnam, establishing a representative office marks their presence in the country. It offers a low-cost entry for companies seeking to gain a better understanding of the Vietnamese market. These representative offices can do research about the markets, execute contracts on the behalf of its parent company, and open bank accounts for administrative operations. The main disadvantage of having a representative office is that due to their dependent nature to their parent company, they cannot conduct any commercial activities or engage in any activities that generate revenue. This includes buying/selling commercial goods, providing services that generate profit, and signing commercial agreements without the parent company's ad-hoc authorisation.



Public – Private Partnership ("PPP") Contracts

A Public-Private Partnership is a contract between a private company and government authority. This is often focused on investments in public infrastructure projects and services. This form of contract typically allows for faster project completions by including time-to-completion as a performance measure. PPPs are nevertheless prone to lower profit levels and oftentimes struggle to find alignment between the public and private stakeholders.



Branch office

Branch offices are typically implemented by companies conducting revenue-generating activities in Vietnam that have direct connections to another office or parent company. This office is legally allowed to operate as the parent company, using its own company seal and having tax-paying responsibilities. Branch offices can carry out commercial activities within the parent company's scope. However, this option is exclusive to a few sectors in Vietnam such as legal services, IT services, consulting and management services, construction services, commercial franchising, and financial services.



Limited-liability company ("LLC")

A limited-liability company (LLC) is the most popular legal structure form in Vietnam. It is created by one or more members who contribute charter capital to the company and are then liable for financial obligations in proportion to their capital contribution. As a separate legal entity, an LLC can be either completely foreign-owned (where investors are all foreign) or a foreign-invested joint-venture (where at least one investor is local). An LLC can be used as a subsidiary or holding company of a foreign company interested in establishing a presence in Vietnam. The advantages of an LLC include the fact that a company's liability is limited to capital contribution and that there are relatively fewer restrictions on business scope activity. However, the disadvantages are that the LLC legal registration option includes not being able to issue shares and having a member limit of 50. As such, it is often most suitable for smaller legal entities in Vietnam.



Joint Stock Company ("JSC")

Like an LLC, a joint stock company (JSC) can be wholly foreign-owned or a joint-venture. The difference between a JSC and LLC is that the contributed charter capital will be converted to shares and divided proportionality to members. Within a JSC, the corporate structure is made up of a Management Board which is supervised by an Annual General Meeting and the Inspection Committee, a Chairman of the Management Board, and a General Director. Within this corporate structure, shareholders, management board members, and directors are all responsible for acting in the best interest of the company and can be held accountable. JSCs have few restrictions on business scopes, can go public and issue shares, and do not have a set maximum number of members. The JSC registration option is generally most appropriate for companies that hope to grow to scale and have large and diversified shareholders. This comes with obvious operational complexities and compliance costs but is the most appropriate structure for a company that may eventually go public.





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- delivering a new trade policy framework for the UK as we leave the EU
- promoting British trade and investment across the world
- building the global appetite for British goods and services

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