

# Healthcare in a Digital Economy

Reimagining the future of HealthTech in Malaysia

November 2021 | PwC Malaysia



**pwc**

# Malaysia's healthcare industry is pivoting in a post-pandemic world



## Malaysia's healthcare industry is ripe for disruption

With rising healthcare costs<sup>1</sup> and supply pressures on the public healthcare infrastructure<sup>2</sup> further induced by the pandemic, the healthcare service delivery model in Malaysia is due for disruption.

## Digitalisation of healthcare is driven by patients' need for convenient access, good quality and affordable healthcare services

As healthcare delivery reaches a critical inflection point, innovative healthcare models led by HealthTech players will grow in parallel to complement traditional delivery channels.

In October 2021, the Malaysian government announced plans to release a blueprint for Malaysia's healthcare system reform, a new way forward to transform the national healthcare system under the Twelfth Malaysia Plan, with the goal of enhancing healthcare service delivery through digital means.

However, some challenges still exist, with digital health adoption amongst consumers and patients observed to still be nascent, further compounded by the absence of clear regulations to govern digital health in the country.



To drive digital healthcare in Malaysia, government support is essential to create robust digital healthcare regulations and standards. This is the perfect time to claim leadership in the Southeast Asian region as Malaysia has the right mix of innovative technology and healthcare talent to spur the industry's growth.

**Maran Virumandi**, Co-Founder and CEO of DoctorOnCall



## Five key themes driving the future adoption of digital health in Malaysia



### Healthcare is moving closer to home

There has been increased demand for telehealth services to provide patients with access to healthcare through remote physician consultation and e-pharmacy services



### Convergence of healthcare and FinTech services to deliver affordable virtual healthcare services

Payment models such as 'Care Now, Pay Later', and digital micro-health insurance will enhance financial access to meet the broader healthcare needs of the unserved and underserved



### Focus on the consumer

HealthTech providers are increasingly placing consumers first, and leveraging data throughout the patient's healthcare journey to deliver more personalised care for more precise and meaningful health outcomes



### Emphasis on wellness and prevention

Digital has the potential to lower healthcare costs, with the same quality of care. HealthTech innovators are betting big on preventive wellness including health diagnostics, and developing new dynamically-priced services and payment options, to reducing the burden of high costs



### Rise of consumer healthcare

Healthcare supply chains have been disrupted by e-commerce and social commerce platforms, and created new distribution models for businesses to reach consumers at scale

Note: <sup>1</sup>Malaysia's medical inflation rates in 2020 was c.13.5%, above Asia's c.10.7% average; <sup>2</sup>Doctors and nurses per 1,000 population is 1.5 and 3.5 in Malaysia, below OECD's average of 3.4 and 8.6 respectively; while the ratio of hospital beds per 1000 population in Malaysia of 1.3 is below OECD's average of 4.6

Source: PwC research and analysis, OECD Health Statistics 2020

# Transforming healthcare in a digital economy








## Reinventing healthcare delivery models

Out of 13 HealthTech deals in Southeast Asia in H1 2021, Malaysia represented only 3% of digital health venture funding in the region, compared to 55% by Singapore and 40% by Indonesia<sup>1</sup>.

While Malaysia may be lagging behind its counterparts in the region in fundraising for digital health startups, there is significant opportunity for innovative players to leverage on technology to bridge critical supply gaps in healthcare infrastructure, and deliver lower cost and more effective care to patients alongside healthcare providers and operators in the private and public healthcare sectors. In this regard, telemedicine services can partially help address healthcare infrastructure gaps in countries with low ratios of doctors, beds or medical facilities to population, to deliver healthcare to the underserved.

Moving ahead, with adequate support and capital, HealthTech startups can play an integral role to connect key participants within the healthcare ecosystem, through an integrated platform to deliver seamless care to patients at lower cost.

## Technology will be a key enabler to facilitate faster and wider consumer access to healthcare services

	Preventive care	Care delivery	Distribution and wearables	Financing	
Verticals					
	Digital wellness	Virtual healthcare	e-Pharmacy	MedTech	Digital insurance and health benefits
Incumbents	Primary, secondary and tertiary healthcare providers		Pharmacies	Medical device manufacturers	HealthTech players, Insurers, TPAs
HealthTech startups	Digital wellness platforms	Teleconsultation platforms	Telepharmacy platforms	Wearable tech and digital medical devices	InsurTech and digital care management
Examples of startups	Naluri, Homage	BookDoc, DoctorOnCall, Doctor Anywhere	Esyms, DOC2US	N/A	MiCare, HealthMetrics, PolicyStreet, BIMA
Key offerings	<ul style="list-style-type: none"><li>• Digital care solutions for physical and mental health</li><li>• Home care, respite care, elderly care</li></ul>	<ul style="list-style-type: none"><li>• Online doctor booking platform and virtual consultation</li><li>• One stop shop for healthcare services</li></ul>	<ul style="list-style-type: none"><li>• Online pharmacy and delivery of medication</li><li>• Pharmacist consultation</li></ul>	<ul style="list-style-type: none"><li>• Activity and fitness monitoring</li><li>• Self-test kits (glucose monitoring, DNA, etc) and point of care testing</li></ul>	<ul style="list-style-type: none"><li>• Personalised micro health insurance</li><li>• SaaS employee health benefits administration</li></ul>
Future growth areas	<ul style="list-style-type: none"><li>• Mental wellness apps</li><li>• Connected and personalised wellness programmes</li><li>• Disease management</li></ul>	<ul style="list-style-type: none"><li>• ‘Care Now, Pay Later’ plan</li><li>• VR/AR medical treatments</li><li>• Digital therapeutics<sup>2</sup></li></ul>	<ul style="list-style-type: none"><li>• AI-based tools for personalised reminders (medication/ routine checks)</li></ul>	<ul style="list-style-type: none"><li>• Personalised/ advanced wearable device and connected apps</li></ul>	<ul style="list-style-type: none"><li>• Smart underwriting</li><li>• Risk profiling</li><li>• Fraud management</li></ul>

Note: <sup>1</sup>H1 2021 Asia Pacific Digital Health Ecosystem Key Trends; <sup>2</sup>An evidence-based software intervention (a programme/app) that is intended to prevent or treat a disease

Source: PwC research and analysis, Galen Growth Research 2021, MDEC



# Recent fundraising by HealthTech startups with presence in Malaysia



HealthTech startups in Malaysia which have completed their Series A funding are now potentially planning for a Series B round to back their regional expansion plans



**Homegrown digital health startups still in its infancy**

Homegrown HealthTech startups in Malaysia have completed their Series A funding (USD5m-USD6m) in the last 2 years. The pandemic however, has catalysed greater demand for digital health solutions



**FinTech will enable greater healthcare inclusion**

Mobile wallets, FinTech and HealthTech apps have opened up channels for underserved customers to access and experience digital healthcare services and bite-sized healthcare insurance products



**Larger fundraising amounts to scale in the region**

MiCare raised USD60m in May 2021, led by International Finance Corporation (IFC) and Mitsui & Co to support its Southeast Asia expansion plans. It is the largest fundraising round to date by a HealthTech startup in Malaysia

## Recent funding rounds by HealthTech players with operations in Malaysia

HealthTech startup	HQ	Recent fundraising round	Fundraising date	Deal size (USD m)	Lead Investors (Non-Exhaustive)
● Doctor Anywhere	Singapore	Series C	Aug 2021	66	Asia Partners (SG)
● MiCare	Malaysia	Private Equity Growth	May 2021	60	International Financial Corporation (US), Mitsui & Co APAC (SG)
● Homage	Singapore	Series C	Sep 2021	30	Sheares Healthcare Group (SG)
● BIMA <sup>1</sup>	UK	Venture - Series Unknown	Sep 2020	30	CreditEase Fintech Investment Fund (CN)
● PolicyStreet	Malaysia	Series A	Sep 2021	6	Altara Ventures (SG)
● Naluri	Malaysia	Series A	Jun 2021	5	Integra Partners (SG)
● HealthMetrics	Malaysia	Series A	Oct 2020	5	ACA Investments (SG)
● Esyms	Malaysia	Seed	Mar 2020	0.8	Not Disclosed

**Type of startup** ● Telehealth ● Digital care management ● Digital wellness platform ● InsurTech

Note: The above excludes HealthTech players where funding amounts have not been publicly announced, e.g. BookDoc, DoctorOnCall and DOC2US;

<sup>1</sup>Has operations in 10 countries across Africa and Asia including Malaysia

Source: PwC research and analysis. Based on publicly available information

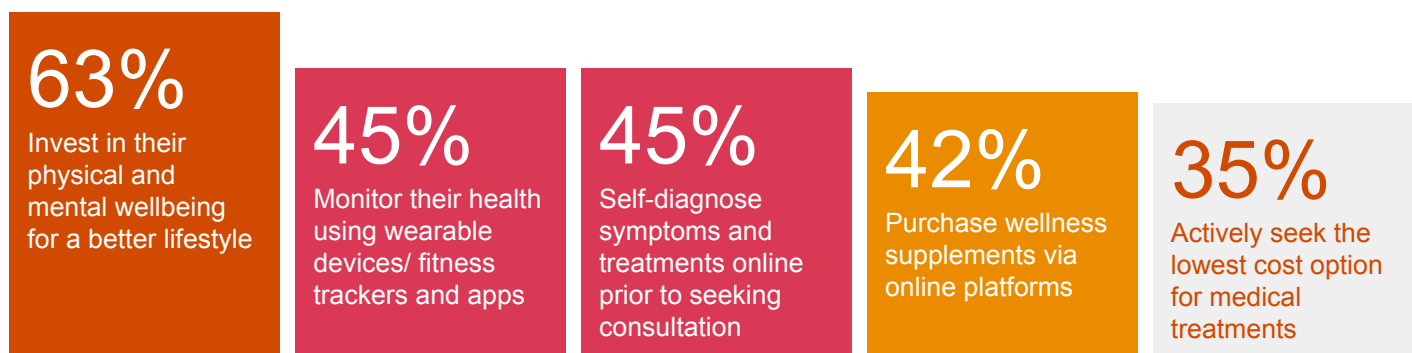
# Malaysians prioritise wellness and seek affordable healthcare



In October 2021, PwC Malaysia conducted a survey on the “Future of Digital Health in Malaysia” to understand patients’ healthcare experience during the pandemic, behaviours and views towards the adoption of virtual healthcare services in Malaysia. Close to 200 Malaysians in the Klang Valley (Kuala Lumpur and Selangor) were surveyed from different age groups, with 82% between 18 - 40 years old, 93% working professionals, and 96% from the middle to upper income groups (individual income of more than RM1,155 per month or USD279 per month)<sup>1</sup>.

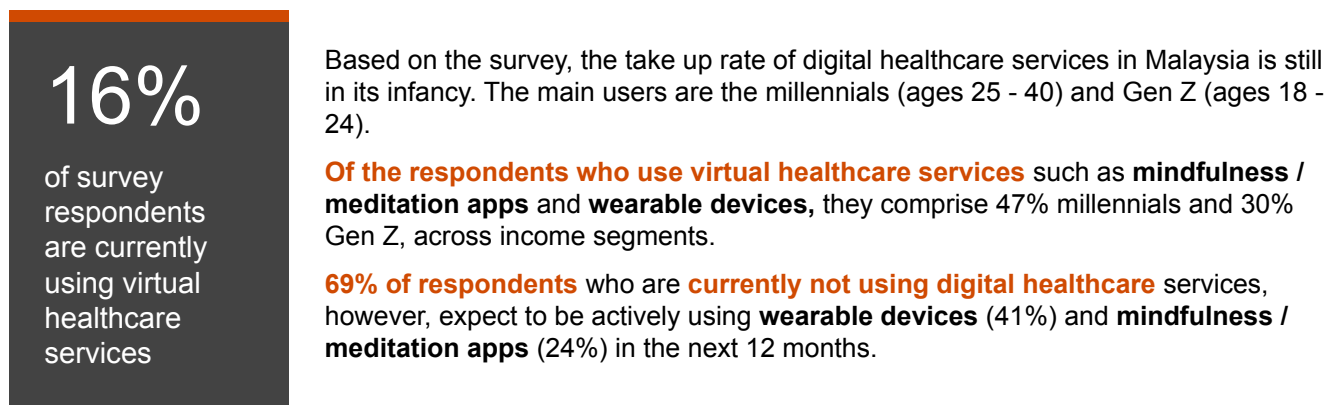
## Key highlights from the “Future of Digital Health in Malaysia” survey







Malaysians in the Klang Valley prioritise their well being, are well-informed users and actively seek out affordable healthcare treatments



Question: “Which of the following statements about how you manage your health is true today?”

## Digital healthcare services at its prime for growth



Top pain points faced by customers in Malaysia’s healthcare system	Key motivators for adoption of virtual healthcare services
 Expensive private healthcare bills	 Affordable healthcare
 Expensive insurance premiums	 One-stop platform for healthcare providers and insurers
 Long waiting time in hospitals	 Personalised healthcare experience

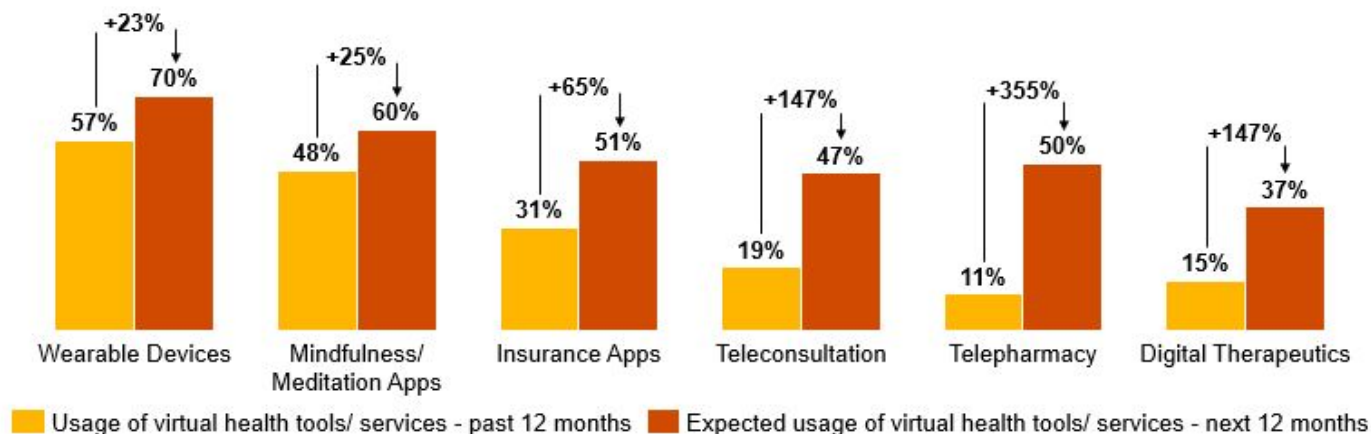
Note: <sup>1</sup>As per Department of Statistics Malaysia’s classification, with an average household size of 4.2 persons  
Source: PwC Malaysia’s “Future of Digital Health in Malaysia” survey, October 2021, PwC research and analysis

# Paving the way for digital health



**Consumers expect to increase usage of digital health services in the next 12 months, with Telepharmacy, Teleconsultation and Digital Therapeutics expected to see the highest growth**

Usage of virtual health services based on survey respondents (%)



## FinTech - a key enabler for greater access to quality healthcare at lower costs

The confluence of healthcare and FinTech provides a significant opportunity to increase patient access to healthcare providers, and promote higher usage of virtual healthcare services.

Amongst survey respondents with no insurance coverage in the lower to middle income segments, **88% of respondents were interested in a 'Care Now, Pay Later' option to cover healthcare expenses**, while **75% would consider a subscription-based payment model**. As the cost of healthcare continues to be a major pain point for many consumers, this creates a latent demand for innovative, flexible and market-driven payment solutions.



### Care Now, Pay Later

- A payment option that enables users to make instalment payments with no interest rates, after a service is rendered
- **74%** of total respondents are open to using a 'Care Now, Pay Later' model



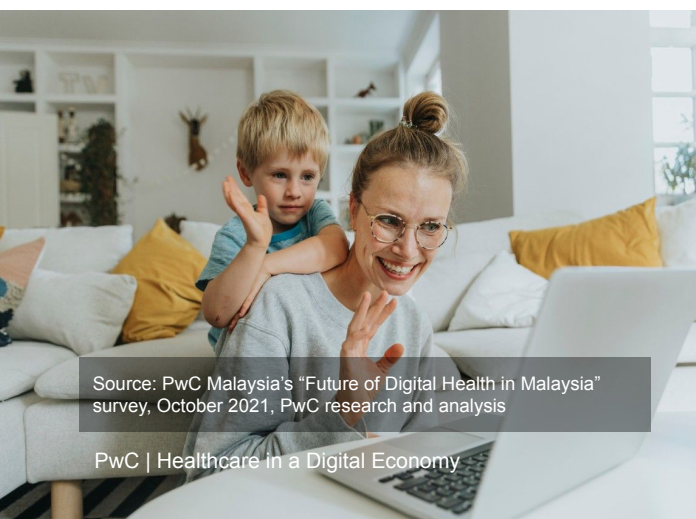
### Subscription-based payment model

- A payment option that enables users to make recurring payments (monthly or annually) prior to a product or service received.
- **62%** of total respondents are open to using a subscription-based payment model

# 56%

of respondents who are highly likely to use these payment methods are from the lower to middle income groups<sup>1</sup> in Malaysia

Note: <sup>1</sup>Lower income group defined as Individual monthly income of RM1,155/ month or less, Middle income group defined as Individual monthly income of more than RM1,155 - RM2,609 per month (USD279 - USD628 per month) as per Department of Statistics Malaysia's classification, with an average household size of 4.2 persons



Source: PwC Malaysia's "Future of Digital Health in Malaysia" survey, October 2021, PwC research and analysis

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## What's next for healthcare?

# 92%

of respondents expect virtual healthcare to complement their healthcare experience in the future




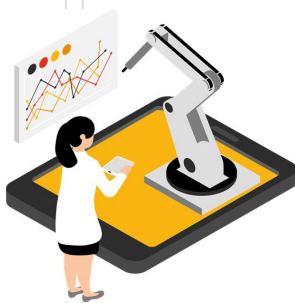
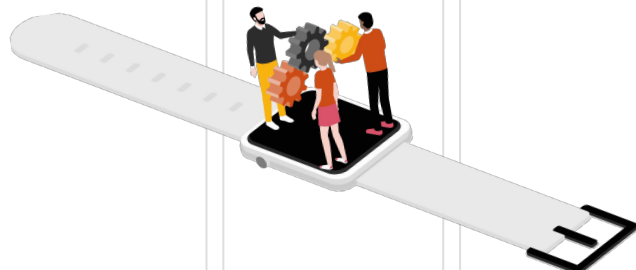


# Creating a connected healthcare ecosystem through digital



## HealthTech has redefined the patient journey



Awareness	Diagnosis	Treatment decision	Payment	Prescription	Maintenance
 <p>Digital is a powerful and effective medium to provide information on health and care options for consumers</p>	<p>Digital healthcare is increasingly being used for diagnosis and will play a key role to connect healthcare professionals with patients seamlessly</p>	<p>Digitalisation will ensure that patients, health professionals and payors have access to the information they need to make the best choices</p>	<p>FinTech and digital payments increase options for patients, and enables instant processing for payors</p>	<p>Digital apps make it easier for patients to receive their prescriptions and consult with healthcare professionals for follow-up enquiries</p>	<p>Apps and tools designed to ensure patients consume their medication as prescribed can help to reduce waste, and improve patient outcomes</p>
 					

Healthcare is moving towards better awareness and prevention





“

There is a need for insurance within the self-employed and B40 segments in Malaysia.

”



## InsurTech will enable broader access to healthcare

### Room for potential growth in the current, underpenetrated health insurance market

“Health insurance is more prevalent amongst corporates and the mid-to-upper income segment, with the self-employed and B40 segments largely underserved. Additionally, we have observed strong demand for family-wide insurance coverage in Malaysia.”

**“InsurTech will drive higher health insurance uptake among the underserved and unserved through micro-health insurance and affordable subscription payment models,** and further providing access to free and unlimited teleconsultations. Additionally, offering payment options via mobile channels and e-wallets will provide customers with a frictionless payment experience.

With the bundling of insurance and digital health, we are shifting from a highly reactive approach to care, with insurance solely reimbursing hospital bills, to a **model focused on preserving the customer’s wellbeing** by democratising access to preventive, primary and specialist care.”

**Damien Gueroult**

Country Manager (Malaysia), BIMA





“

Healthcare needs to shift from a siloed model to a coordinated and multi-disciplinary care model

”

## Prevention is better than cure

### What are some issues you see in the Malaysia healthcare landscape?

“We need to move beyond telehealth consultation services that are reactive, transactional and siloed by specialisation, to a preventive, behavioural health model using coordinated, multi-disciplinary care that is outcomes-based.”

### How does employee wellness drive impact for corporates?

“**Employee wellness needs to deliver quantifiable health outcomes** and measurable direct medical cost savings and improvements in indirect costs such as absenteeism and presenteeism and move towards providing guaranteed returns on investment.”

**Azran Osman-Rani**

Co-Founder and Chief Executive Officer, Naluri

## Data analytics and digitalisation can help corporates manage their cost of providing healthcare benefits to their employees

### How have companies reacted to employee healthcare benefits over the past year?

“**Healthcare is now a top priority.** Amidst the pandemic, corporates are ramping up on healthcare benefits, and exploring innovative ways to give back to their employees through wellness”.

### How can data and digitalisation optimise employee healthcare benefits?

“Through the usage of cloud and Software-as-a-Service (SaaS) solutions, companies can more effectively manage and monitor their employee benefits. Using data and predictive analytics, these platforms provide actionable insights on how corporates can monitor and optimise their healthcare benefits programmes.”

**Alvin Yuan**

Co-Founder and Chief Executive Officer, HealthMetrics

“

We are continuously developing services that will optimise healthcare costs for corporates

”



# Positioning for the next wave of healthcare growth



## The healthcare crisis has created new opportunities in digital health

As a result of the pandemic, there has been a rise in the adoption of virtual health solutions in society, once considered to be more aspirational for some countries. Technology is increasingly being leveraged in healthcare to gain market scale, digitalise distribution and delivery, and facilitate seamless payments for virtual healthcare services.

As we embrace a connected healthcare future, growth in digital health would require the participation of healthcare providers in the ecosystem and expansion capital from investors, to support HealthTech startups in their aspirations to democratise healthcare services in Malaysia.

Looking ahead, we envisage more opportunities emerging in digital health in Malaysia and Southeast Asia, with growing investor interest expected in the healthcare themes below.

1



### Niche health solutions to address consumers' pain points through AI

Healthcare data analytics will enable personalised patient care, helping patients access suitable healthcare options based on their lifestyles and health status through healthcare platforms powered by artificial intelligence (AI).

### Increasing healthcare access and affordability through FinTech

FinTech and flexible payment options such as subscription-based care and 'Care Now, Pay Later' models can increase accessibility and affordability for healthcare treatments and virtual healthcare services.



2

3



### Higher demand for digital health insurance offerings via InsurTech

Capitalising on the growth of online purchasing and digital wallets, these platforms offer consumers options to compare and purchase digital health insurance products coupled with flexible, micro-premiums customised to their needs.

### Growth of B2B health benefits platforms

Digital capabilities, data-driven insights and predictive analytics to help corporates, employers and payors track the cost of employee health benefits, identify potential areas of savings, and develop customised employee health benefit plans.

These platforms are also seen to be disruptors to traditional Third Party Administrators.



4

5



### Increasing need for wellness and prevention, mental health and on-demand home care services

As we grapple with the challenges of an ageing population and lifestyle related chronic diseases in a growing digital economy, consumers will increasingly look at healthcare prevention and long term healthcare solutions for chronic disease management through health and fitness platforms/apps, digital therapeutics, and mobile health solutions for geriatric care.



## At PwC, we're passionate about healthcare, and work closely with the industry to develop ideas and explore opportunities that will build the future of healthcare

Our teams combine healthcare industry, commercial, operational, technology and financial expertise across the entire business value chain, with on-the-ground market insights. Aligned with our Purpose 'to build trust in society and solve important problems', we strive to contribute towards better healthcare outcomes in the market.



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