

White Paper

BRINGING QUALITY AND AFFORDABLE MEDICINES TO POPULATIONS

*Improving population health outcomes while achieving
universal healthcare coverage*

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TABLE OF CONTENTS

Universal Healthcare Coverage (UHC) in Southeast Asia: An overview and progress	3
Challenges in ensuring access to quality and affordable medicines	5
Importance of providing access to affordable and quality medicines for UHC	8
Future horizons: Improving population health outcomes for UHC	9
References	10
About the authors	11

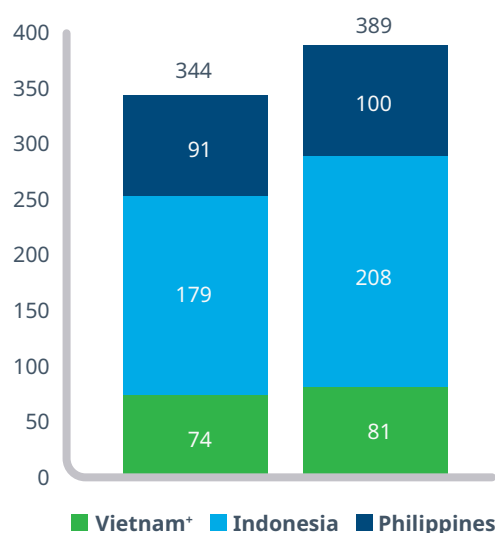
Universal Healthcare Coverage (UHC) in Southeast Asia: An overview and progress

Since early 2001, the implementation of the full Universal Coverage Scheme (UCS) in Thailand has provided effective and affordable interventions to its citizens with little or low insurance coverage and has expanded access to primary healthcare. This was a culmination of 30 years of social insurance system transformation, facilitated by gradually expanding coverage for the poor*, then near-poor, formal sector employees**, the children and elderly. By 2011, the program covered 48 million Thais, or 98% of the population, and cost just US\$80 per person annually, primarily funded by the general income tax. While there have been improvements in health outcomes (e.g. reduced infant mortality and decreased worker sick days), the public health system has had to address increased workload for providers and higher administrative and financial burdens.

Still, given the positive changes as a result of UCS, other countries are following suit. Between 2014 and 2018, Indonesia, Vietnam, and the Philippines have enrolled over 40 million people in their respective national health insurance schemes. *Table 1* and *Figure 1* show the shifts

Figure 1: National Health Insurance coverage trends in 2014 and 2018

Population coverage of national health insurance scheme (in millions)



*Note that Vietnam's latest available data is as of 2017

Source: IQVIA Analysis

in national health insurance coverage over the last few years in these countries.

As a result of efforts to implement Universal Healthcare Coverage (UHC) initiatives, we now have better data to understand the health system of these countries.

Table 1: Summary of national health insurance population coverage across Indonesia, Philippines and Vietnam

	POPULATION (2014)	% POPULATION COVERED IN 2014	COVERAGE IN 2014	% POPULATION COVERED IN LATEST YEAR	COVERAGE IN LATEST YEAR
INDONESIA	255,129,000	70%	178,590,300	75% (2018)	208,054,199 (2018)
PHILIPPINES	100,513,140	91%	91,466,957	91% (2018)	100,000,000 (2018)
VIETNAM	91,714,600	81%	74,288,826	84% (2017)	81,000,000 (2017)
TOTAL			344,346,083		389,054,199

* The starting population coverage was 30%, but the service coverage, although comprehensive, was not deep. In 1985, there was gradual coverage of the near-poor, based on a voluntary, publicly subsidised healthcare scheme.

** Since 1984, government employees were covered by the tax-financed Civil Servant Medical Benefit Scheme, and the informal sector by a voluntary public-subsidized insurance scheme.

The introduction of Social Health Insurance (SHI) administrative databases provides a means of access to national healthcare claims data for epidemiological and health economics research and a source of evidence for policymaking decisions in Indonesia, Vietnam and the Philippines. Some of the key data capture information in the respective national insurance for each of these countries are summarized in *Table 2* below.

While we should celebrate that national health insurance efforts are broadening access to healthcare, we must also recognize the political pressure on government budgets to provide high quality care at affordable costs.

Yet this effort can be actively undermined if these medicines do not work as they are intended to, mostly because they are either substandard or falsified^{***}.

Such products exist in all regions. Thus, more evidence-based estimates of the volume and distribution of poor-quality medicines across all markets is needed.

Furthermore, recent evidence shows that governments may not be able to afford the package of care they have promised. BPJS Kesehatan, Indonesia’s government agency that oversees and administers the national health insurance program, has suffered deficits in five of the six years since the system was introduced in 2014. This year, the shortfall between spending and premium income is set to balloon to 28 trillion Rupiah (or nearly US\$2 billion), more than double the gap in 2018, as shown in *Figure 2*. In response, BPJS has planned to raise its premiums by at least 65% starting September 2019 in an effort to plug the deficit, which will result in a big impact for the lower income populations¹.

Table 2: Description of the JKN, VHIS and PhilHealth databases²

	JKN	VHIS	PHILHEALTH
HEALTH FACILITIES COVERAGE (YEAR)	2017	2015	2017
NUMBER OF PROVIDERS	25,391	13,508	6118
OUTPATIENT	22,975	12,143	8127
CLINICS	20,300	345	1541 ^a
PRIVATE (%)	51	0	0
RURAL HEALTH UNITS	NA	11,798	2606
RETAIL PHARMACIES	2675	None	None
OTHERS (INFIRMARIES AND BIRTHING HOMES)	NA	NA	2067
HOSPITALS	2416	1365	1913
PRIVATE (%)	60	13	60
CONTINUOUS AND CONSISTENT DATA CAPTURE	Yes, only for specialist outpatients and inpatients	Yes	Yes, only for inpatients
RECORD DURATION OF COMPLETE DATA, AS OF FEBRUARY 2019	3 years (2014–2016)	2 years (2017–2018)	2 years (2016–2017)
DATA LATENCY	2 months to 1 year, depending on how prompt hospitals are with filing of claims	2–4 months	2 months
NUMBER OF CLAIMS (YEAR)	~ 50 million (2015)	~ 200 million (2017)	~ 10 million (2016)
IN-HOUSE DATABASE EXPERTISE	Yes	Yes	Yes

JKN Jaminan Kesehatan Nasional

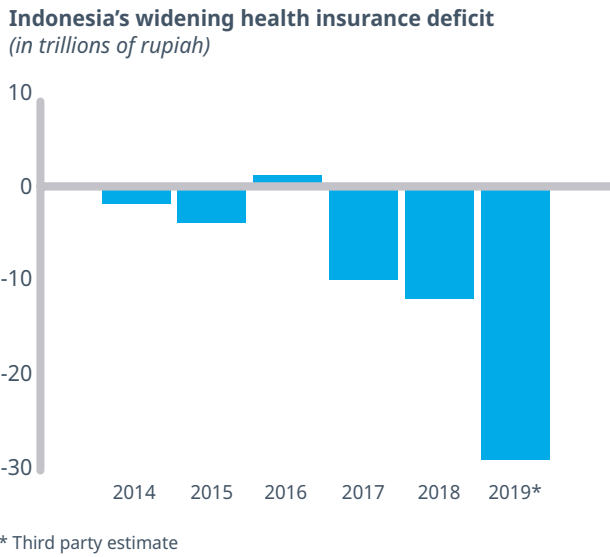
VHIS Vietnam Health Insurance Scheme

PhilHealth Philippine Health Insurance Corporation, NA not applicable

^aOnly includes facilities accredited to provide primary care benefits

^{***} According to the WHO definitions, substandard medicines are authorized medical products that fail to meet either their quality standards or specifications, or both; Falsified medical products are those that deliberately/fraudulently misrepresent their identity, composition or source.

Figure 2: Indonesia's widening health insurance deficit³



Source: BPJS Kesehatan

In many countries that have implemented UHC, there are signs that service delivery is not high. For instance, in Thailand, there has been reported long waiting times and overuse of health systems. Doctors may have less incentive to provide quality care and spend less time per patient to keep their costs down. These evidences suggest that increased government spending on healthcare workers and service delivery is still required to fully deliver on the promise of UHC in developing countries.

Moreover, UHC efforts are expected to focus on the basic care provision, and still involve out-of-pocket costs. For example, a recent study of the rotavirus vaccine in Indonesia reveals that the majority of local communities would be willing to pay 10,000 to 50,000 Rupiah (US\$ 0.80 to US\$ 4.00) per immunization, which is close to the price offered to GAVI through the UNICEF multi-year supply agreement prices of between US\$1.88 to US\$3.20 per dose. The actual cost of the vaccine is US\$84 to US\$120 per dose in the Indonesian private market, which may be prohibitive to the consumer as it is not covered within the government-funded insurance program, JKN.

Challenges in ensuring access to quality and affordable medicines

The key challenge for many developing countries implementing UHC is how to ensure that patients who visit a healthcare facility can have access to quality medical services at an affordable price.

Rising pressure on costs

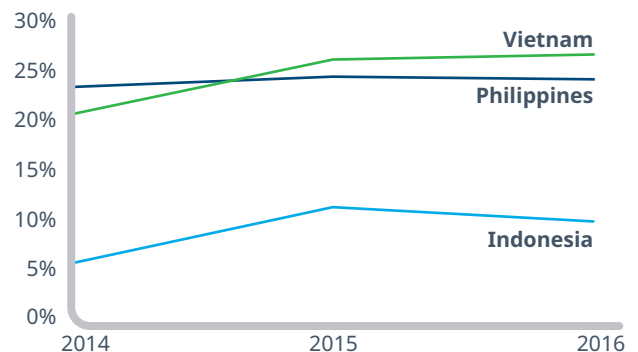
The downward pressure on prices in countries that are implementing UHC has also led to some manufacturers making a tough choice between their commitment to patients versus maintaining their profit margins. For example, some key essential medicines, such as the antibiotic penicillin or methotrexate for cancer, are disappearing from the market globally due, in part, to prices that have become so low that it seems no longer commercially viable for manufacturers to supply them⁴.

Overall, there are many factors that contribute to the challenge of ensuring quality and affordable medicines in many countries ranging from type of financing of medicines to monitoring capacities.

Finding the balance in financing medicines

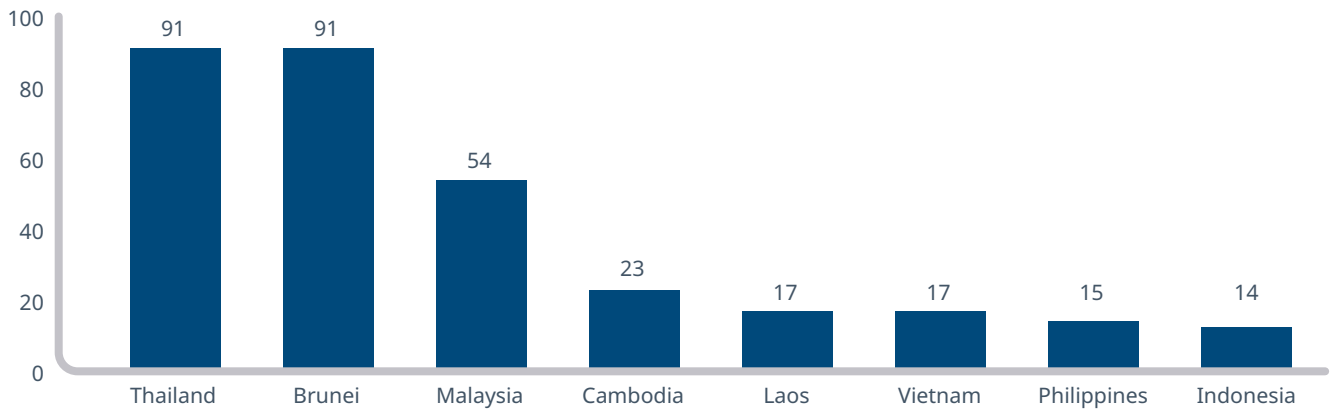
A large part of medicine spend today is out-of-pocket – especially in lower- and middle-income countries where pharmaceuticals spend accounts for a moderate proportion of total healthcare expenditures. Vietnam, Philippines and Indonesia are examples of countries that fall in this category (Figure 3). Consequently, these countries also have a significantly higher private sector share than public sector share of financing pharmaceutical expenditure compared to their upper-middle income counterparts (Figure 4).

Figure 3: Pharma expenditure as a % of current health expenditure across 3 markets⁵



Source: IQVIA MIDAS National Sales Audit and WHO Global Health Observatory 2016, OECD Health Statistic

Figure 4: Government share of pharmaceuticals expenditure, 2010-2014 (%)



Source: WHO Global Health Observatory 2016, OECD Health Statistic

Medicines are fundamental and require appropriate and carefully planned financing across both the public and private sectors, in order to ensure that people can receive the necessary treatment at the right time. As governments further implement UHC initiatives, the planning and purchasing decisions that governments make will have an increased influence on pharmaceutical markets and access for patients.

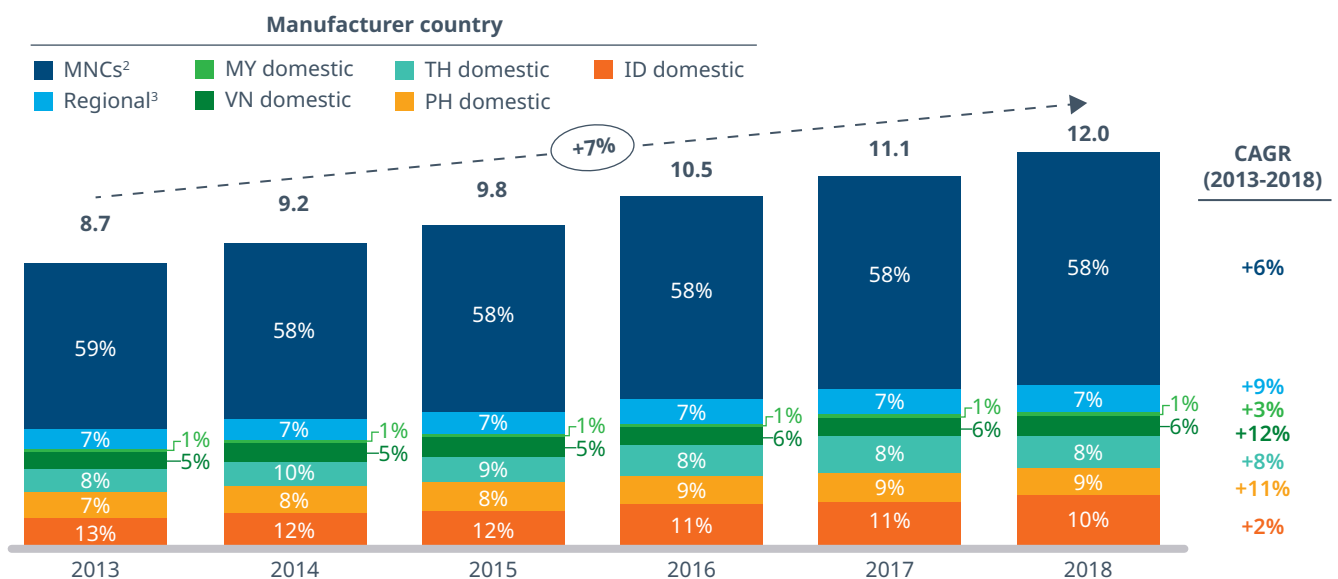
Need for stakeholder education and capacity building

At the same time, we know that amidst the complex healthcare systems, patients and consumers are most concerned with having high quality medicines reach them through the last mile.

All countries have guidelines and initiatives in place to improve local drug standards and to ensure that these standards are compliant with international guidelines. This helps make sure that consumers are getting the legitimate pill to treat their symptoms.

However, many developing countries with limited resources still face difficulties in monitoring the quality of medicines e.g. conduct effective product testing, pharmacovigilance (PV) and safety surveillance, capacity building and technical training for regulators to keep up to date on guidelines, technology and innovations in healthcare.

Figure 5: Pharmaceutical Rx sales in Southeast Asia by Manufacturer Country (MAT Q3 2013-2018 sales, US\$ Bn)



Source: IQVIA Analysis

Dominance of generic products among local manufacturers

In Southeast Asia, while the prescription sales are mainly driven by multi-national companies, most of the generic medicines are manufactured in the region with strong growth of local players from Indonesia, Philippines and Vietnam (Figure 5).

As more manufacturers are entering the market, particularly for low-cost generic products, there will be an increased need to monitor quality risks.

A generics-dominated market also reduces the appetite and incentive for pharmaceutical innovation. This can be detrimental to the development and accessibility of timely and quality care for patients.

Within the OTC market of medicines, non-retailing (i.e. direct sales and online channels) form a substantial share in Malaysia, Vietnam and Thailand. However, quality risk is likely to be the highest in these channels given the difficulties in regulating them.

There are various indicators for countries to predict what quality of medicines is being delivered to consumers:

1. The source of product distribution where regulation may prove to be difficult, resulting in consumers receiving falsified or substandard medicines e.g. unregulated websites, illegal street markets, non-store retailing, other direct sales channels

2. The significant presence of independent or non-chain pharmacies topped with low penetration of pharmacies in Southeast Asia allow for unregistered drug stores to dispense falsified or substandard medicines to patients (Figure 6). In case of the former, it is difficult for authorities to monitor and regulate the distribution of quality drugs; while for the latter, lower access to pharmacies has in turn led people to turn to convenient channels to purchase medicines which they believe to be the most reliable, affordable and best-known quality. As noted, some of these channels may be unlicensed and the origins of their medicines may be questionable. For instance, in the e-commerce sector in Indonesia, 361 violations were found for pharmaceutical products in 2018 (or a total of 50% of reported violations in intellectual property rights)⁶
3. The high level of domestic manufacturing in some local markets increases the risks of quality gaps, necessitating contemplation of types of intervention. Furthermore, for many of the middle-income Southeast Asia markets, domestic consumption and production of medicines may be outpacing their regulatory maturation. Potential weaknesses in domestic manufacture and export will impact global patient safety because of both the legitimate pharmaceutical trade and potential for production of falsified and substandard medicine for the illicit unregulated supply chain⁷

Figure 6: Pharmacy penetration and share of independent pharmacies



Source: IQVIA Analysis

4. Government policies in favor of local manufacturers may deter or limit access to novel drugs which could potentially improve the lives of patients. Furthermore, in lowering costs of production, some manufacturers will inevitably be forced to compromise on quality in order to fulfil the government's push to drive down pharmaceutical prices as part of being able to afford UHC. This may in turn result in patients receiving the lowest denominator treatment drug for their diseases.

Importance of providing access to affordable and quality medicines for UHC

The current and future risks of patients consuming falsified and substandard medicine are tremendous and pose huge global public health risks without proper detection and harmonized reporting. Some examples are⁸:

1. Treatment failure in malaria, TB and HIV/AIDS: These diseases are more common, widespread and destructive in resource-poor settings of Africa and Asia. Treatment failures put patients at risk for disease progression and favor the selection of resistant virus strains⁹. As their viral loads increase, these patients are also more likely to transmit the infection, impeding efforts to control the virus¹⁰.
2. Growth of resistance to existing anti-infectives from use of sub-par treatments: The cost of health care for patients with resistant infections is higher than care for patients with non-resistant infections because of longer duration of illness, additional tests and the need for more expensive medicines¹¹.
3. Spread of drug resistant pandemics, including HIV and influenza: The rise in resistance not only impedes our ability to treat infections, but has broader societal and economic effects.
4. Use of illegal funds to finance further illegal manufacture of medicines: Drug markets remain the largest criminal markets in the world and generate

multi-billion dollars in profits for groups involved in this criminal activity. The UNODC estimates that the largest income for transnational organized crime comes from illicit drugs, which account for some 20% (17%-25%) of all crime proceeds, or about half of transnational organized crime proceeds and 0.6% to 0.9% of global GDP. In turn, drug-related proceeds available for money-laundering through the financial system is equivalent to between 0.4% and 0.6% of global GDP¹².

For affordable and quality medicines to reach patients, coordination between various actors will need to improve, healthcare systems will need to be strengthened, and financing barriers will need to be addressed. Given the globalization of health-care delivery, securing the integrity and safety of the global medicines supply chain is important for patients to receive safe and efficacious treatments.

While governments aim to improve access to essential medicines and ensure effective spending on healthcare, it is also critical that the private sector commit and contribute to improving global health and ensure that their products continuously meet quality requirements for safe and high-quality treatments to be delivered to populations.

In this regard, many initiatives have been in place to strengthen local capacity, particularly in better monitoring and detection of substandard and falsified medicines and educating healthcare professionals to promote quality use of medicines. These initiatives will help provide patients with the much-needed assurance that they are receiving medicines that work.

Furthermore, many large pharmaceutical companies are committed to licensing their technologies to quality generic manufacturers. Some are also expanding their production and distribution capacities to meet patients' needs, while others are conducting R&D to develop missing essential medicines. The end goal is for patients to receive the best available and affordable treatment for their illnesses.

Future horizons: Improving population health outcomes for UHC

Improving access to quality-assured essential medicines is not an end in itself. It is a means to improving health status, promoting well-being and achieving equity across populations.

Going forward, shifting UHC interventions from curative care (i.e. providing quality medicines) to preventive care can help the health system to efficiently deliver the expected standard of care.

Today, people are taking a more proactive role in managing their own health, with the influx of telehealth and self-monitoring devices and apps. Better educated patients and health professionals are also demanding change in diagnosis and treatment approach.

According to the IQVIA Institute¹³, the proliferation of digital health tools will hold great promises for populations, with the potential to improve outcomes for patients, sometimes at near zero, incremental costs. Among the over 318,000 health apps available worldwide today, there are now established leaders among apps for consumers to use. Over 55% of the most downloaded health apps now use sensor data, with significant adoption of consumer wearables like Fitbit and Jawbone for wellness management being a key driver of this phenomenon. The next wave of innovation being applied to sensor technologies — including smartphone sensors, wearables and vital-sign-specific sensors — brings significant possibility to improve health by supporting condition management. Telehealth usage is also expected to double in the next 5 years.

Looking at Singapore, we have witnessed how the Health Promotion Board (HPB) has made efforts to empower citizens to live a healthy lifestyle enabled by technology and analytics. The National Steps Challenge, launched in 2015, provides a rewards system for Singaporeans to engage in sustained physical activities.

In August this year, the HPB also announced an initiative in collaboration with Fitbit called the “Live Healthy SG” initiative to incentivize Singaporeans to subscribe with the Fitbit Premium programme and encourage them to change their habits and adopt healthier habits.

At the same time, the HPB will study and analyze the data obtained from the initiative to identify trends for the formulation of more focused and enriched health intervention and promotional programmes and generate efficiencies in the healthcare system in the long run. This should be a lesson for countries which endeavor to have successful population health management – the marriage of technology and patient data and engagement.

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Steven Harsono leads our Public Health offerings in Asia Pacific.

At IQVIA, Steven develops data-driven solutions and advises on policies and investments for governments, global health organizations, and life sciences companies to improve access to healthcare.

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Steven draws on his diverse past experiences with biopharma, public health and international development organizations to serve as a bridge between the public and private sectors. Prior to joining IQVIA, he led a \$4 million research grant from the Bill and Melinda Gates Foundation to improve pharmaceutical supply chains in Sub-Saharan Africa. He has advised governments in Indonesia, Nigeria, Sudan, Senegal, and Togo to strengthen health systems and life science companies in Thailand, Malaysia, the United Arab Emirates, and South Africa to develop pricing and market access strategies. Steven got his start in public health working with the Clinton Foundation in Indonesia to increase access to HIV diagnostics and treatment.

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Currently, Yee Theng supports and leads various projects in emerging Asia with government institutions and global health organizations on issues ranging from smart hospital transformation, strategizing on improving quality of medicines in Southeast Asia to supply chain diagnostics and transformation. She is also a key manager of IQVIA's relationships with public health stakeholders in the region.

Prior to joining IQVIA, Yee Theng spent 5 years in the public sector. She drove and developed several economic and industrial positioning policies, engaged with industry associations and negotiated several bilateral and multilateral agreements with governments and international development organizations. She also did a brief stint in a medical technology company to conduct policy advocacy work in the EU.

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