

MALAYSIA COUNTRY BRIEF

# Sustainable Immunization Financing in Asia Pacific

August 2017

BREAKING NEW GROUND

THINKWELL

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## ACRONYMS

<b>1MDB</b>	1Malaysia Development Berthed	<b>NHMS</b>	National Health and Morbidity Survey
<b>BCG</b>	Bacillus Calmette–Guérin vaccine	<b>NIP</b>	National Immunization Program
<b>DT</b>	Diphtheria and Tetanus combination vaccine	<b>NKEA</b>	National Key Economic Areas
<b>DTP-Hib-IPV</b>	Diphtheria, Tetanus, Pertussis, Haemophilus influenzae Type b and Inactivated Poliovirus combination vaccine	<b>NRPA</b>	National Pharmaceutical Regulatory Agency
<b>EPP</b>	Entry Point Project	<b>NUVI</b>	New and Underutilized Vaccine Introduction
<b>ETP</b>	Economic Transformation Program	<b>PCV</b>	Pneumococcal Vaccine
<b>GDP</b>	Gross Domestic Product	<b>PEMANDU</b>	Performance Management and Delivery Unit
<b>HepB</b>	Hepatitis B Vaccine	<b>RM</b>	Malaysian Ringgit
<b>HPV</b>	Human Papilloma Virus Vaccine	<b>SIAs</b>	Supplementary Immunization Activities
<b>HTA</b>	Health Technology Assessment	<b>USD</b>	US Dollar
<b>JE</b>	Japanese Encephalitis Vaccine	<b>WHO</b>	World Health Organization
<b>MaHTAS</b>	Malaysian Health Technology Assessment		
<b>MMR</b>	Measles, Mumps and Rubella Combination Vaccine		
<b>MoH</b>	Ministry of Health		
<b>MPA</b>	Malaysian Pediatric Association		
<b>MR</b>	Measles and Rubella Combination Vaccine		
<b>NCD</b>	Noncommunicable Disease		
<b>NCIP</b>	National Committee on Immunization Practices		
<b>NHI</b>	National Health Insurance		

## KEY MESSAGES

<b>Context</b>	<ul style="list-style-type: none"> <li>- Malaysia’s goal to achieve high-income status by 2020 is a key government priority, with the healthcare sector identified as driver of economic growth.</li> <li>- Four of the top five leading causes of mortality being NCDs, the epidemiological transition in Malaysia is more advanced than in most neighboring countries.</li> <li>- Due to the complex political environment and the high chances of a change of government, key reforms and policy changes for healthcare will likely be postponed until the next parliamentary elections, due to take place August 2018.</li> </ul>
<b>Immunization Financing</b>	<ul style="list-style-type: none"> <li>- In Malaysia, immunization is financed and administered vertically by the Ministry of Health. Both vaccine procurement and program costs are financed as a central budget line item.</li> <li>- The public budget for immunization has remained stable over the past years.</li> </ul>
<b>Key Findings</b>	<ul style="list-style-type: none"> <li>- Financing of the current NIP schedule is sustainable and the Ministry of Health is not employing nor considering innovative financing tools.</li> </ul>
	<ul style="list-style-type: none"> <li>- Fiscal sustainability and lack of political will are key barriers to the introduction of new vaccines in Malaysia. The National Committee on Immunization Practices (NCIP) prioritizes budget considerations and political support when considering adoption.</li> <li>- The National Immunization Program (NIP) is quite comprehensive and all vaccines are provided free of charge in public health facilities. A number of new and underutilized vaccines are already included in the National Immunization Program routine schedule, though it is unlikely to expand soon without political support.</li> <li>- A Dengue vaccine is of interest for the Ministry of Health and Malaysia is hosting Dengue vaccine clinical trials.</li> </ul>
	<ul style="list-style-type: none"> <li>- Malaysia’s healthcare system is highly centralized. The Ministry of Health is the funder, provider, and regulator of public healthcare in Malaysia, which is highly centralized and heavily subsidized. As purchaser and provider, the Ministry of Health procures vaccines centrally and is responsible for financing the delivery of vaccines throughout the country.</li> <li>- Despite failed past attempts at healthcare reform, discussions on introducing a National Health Insurance (NHI) scheme have slowed but continue after decades of debate.</li> </ul>

## INTRODUCTION

Malaysia is experiencing stable economic growth and aspires to achieve high-income status by 2020, partially through strategic investments in health. Affordable and accessible health care has already allowed Malaysia to achieve good health outcomes across the board. Malaysia's health system remains centralized with the Ministry of Health serving as the funder, provider, and regulator of public healthcare. The country has a highly complex political environment, with recent high-profile corruption scandals and elections scheduled for 2018. All public reforms have been put on hold pending the elections, including the introduction of a social health insurance scheme. Malaysia's National Immunization Program (NIP) includes a comprehensive schedule with very high coverage rates. Fiscal planning and sustainability for the current immunization program is strong. However, budget constraints and political support are key barriers to adding new vaccines to the National Immunization Program. Until now, introduction of new vaccines has largely been driven by political will, but steps have been taken towards a more evidence-based approach. Of the new and underutilized vaccines not yet in the schedule, the Dengue vaccine is a priority for many researchers and advocates and has support from the Ministry of Health for the phase IV clinical trial.

This brief is one of six in a series that analyzes how countries in Asia Pacific, undergoing financial and/or political transitions, prioritize and fund their immunization programs. The brief contains valuable information for all stakeholders interested in promoting sustainable and robust immunization programs and illustrates a variety of ways to engage in realizing this outcome.

## CONTEXT

### ECONOMIC TRENDS

**Despite low oil prices, the Malaysian economy has performed well and GDP growth rate is expected to increase to 4.5% in 2017 from 4.2% in 2016.**<sup>1</sup> During the 20<sup>th</sup> century Malaysia's GDP growth rate averaged at 9% annually.<sup>2</sup> While this strong economic growth was largely driven by the export of natural resources, the industry and service sectors now account respectively for 48% and 42% of GDP.<sup>3</sup> Though still reliant on oil revenues, Malaysia has effectively increased its resiliency to external shocks by diversifying its production and export base.<sup>4</sup> Despite a slowdown in year-on-year GDP growth rate due to low oil prices, Malaysia has remained among the fastest growing economies among upper-middle income countries. Over the past decades, great gains have been achieved in reducing the share of population living below the national poverty line, from 16.5% in 1990<sup>5</sup> to only 0.6% in 2014.<sup>6</sup> However, economic inequality remains a major concern.

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<sup>1</sup> IMF. (2017)

<sup>2</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013).

<sup>3</sup> Ibid.

<sup>4</sup> IMF. (2017).

<sup>5</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013).

<sup>6</sup> IMF. (2017).

**Figure 1. Real GDP Growth, Annual % Change (1990-2022)**



Source: IMF. World Economic Outlook (April 2017).

**The goal to achieve high-income status by 2020 remains a key government priority, with healthcare identified as driver of economic growth.** The objectives outlined in the Performance Management and Delivery Unit's (PEMANDU) Economic Transformation Program (ETP) continue to dictate economic and social policies in Malaysia, as reflected by the 11<sup>th</sup> Malaysia Plan (2016-2020). The ETP, an initiative designed to transform Malaysia into a high-income country by 2020, aims at leveraging business opportunities through collaboration between public and private sector. Within this framework, the health care sector has been identified as one of twelve National Key Economic Areas (NKEAs) that offer opportunities for growth through public-private collaboration. To exploit healthcare's economic potential, the Economic Transformation Program identified 17 Entry Point Projects (EPPs) that are actionable, private sector-led business opportunities meant to spur economic growth within each NKEA. Entry Point Projects in health range from providing mobile care to senior citizens (EPP15), to fostering a domestic pharmaceuticals manufacturing industry (EPP3).

## DEMOGRAPHIC TRENDS

**The public healthcare sector has struggled to accommodate additional patient load due to aging and increasingly urban population.** In 1970, an estimated 33.5% of Malaysians lived in cities.<sup>7</sup> Today, with 74.7% of the population residing in urban areas, Malaysia is the second most urbanized country in the region. The increase in patient load due to rapid urbanization, matched by the public sector's inability to keep up to demand, fueled a significant expansion in private health facilities in cities. This trend is likely to persist as demographic projections show that the urban population will continue to grow.<sup>8</sup>

**Malaysia is undergoing a significant demographic shift, with the share of the population over 65 years old—estimated at 6%<sup>9</sup> in 2016—projected to reach 14.5%<sup>10</sup> by 2040.** This forecast is largely due to decreasing fertility rates—at 2 children per woman in 2016<sup>11</sup>—and increasing life expectancy at birth. As cities continue to grow and the Malaysian

<sup>7</sup> World Bank. Health Nutrition and Population Statistics.

<sup>8</sup> UNDESA, Population Department. World Urbanization Prospects, the 2014 revision.

<sup>9</sup> The Office of Chief Statistician, D. o. S., Malaysia. (2016b)

<sup>10</sup> Ibid

<sup>11</sup> Ibid

population ages, the health system will face an increasing patient load in urban areas. Moreover, the increasing median age of Malaysians will lead to higher burden of disease due to chronic and non-communicable diseases, requiring more expensive and longer-term treatment. This will put increasing pressure on the financial sustainability of Malaysia's public healthcare and will likely require reprioritization of resources within the system.

**Table 1. Key Demographic Indicators**

Indicator	1970	1990	2010	2015
Total population (million)	10.91	18.21	28.12	30.33
Urban population (% of total)	33.50	49.80	70.90	74.70
Urban population growth (annual %)	4.70	4.40	2.80	2.40
Population ages 0-14 (% of total population)	44.80	37.10	27.40	25.00
Population ages 65 and above (% of total population)	3.30	3.60	5.00	5.90
Life expectancy at birth (years)	64.50	70.80	74.20	74.90
Population growth (annual %)	2.50	2.80	1.60	1.40
Fertility rate (births per woman)	4.90	3.50	2.00	1.90

Source: World Bank. Health Nutrition and Population Statistics.

## HEALTH OUTCOMES

**Thanks to affordable and accessible health care, Malaysia has achieved good health outcomes across the board.** Life expectancy increased from 63.60 in 1970 to 74.88<sup>12</sup> in 2015, placing Malaysia above the average of upper middle-income countries. Besides the significant gains in life expectancy, Malaysia improved the core indicators on maternal and child health. In 2015, the infant mortality rate was as low as 6.2 per 1000 live births, and under-5 mortality was at 7.5 per 1000 live births<sup>13</sup>—making Malaysia one of only three countries in the region to achieve an infant mortality rate lower than 10 per 1000 live births. The maternal mortality ratio has also dropped substantially from 160 in 1970<sup>14</sup> to 22.7 in 2014<sup>15</sup>. Moreover, differentials in maternal and child health between ethnic groups were reduced through more equitable health services and due to decreased economic inequality across ethnic lines.<sup>16</sup>

<sup>12</sup> Ministry of Health (2016).

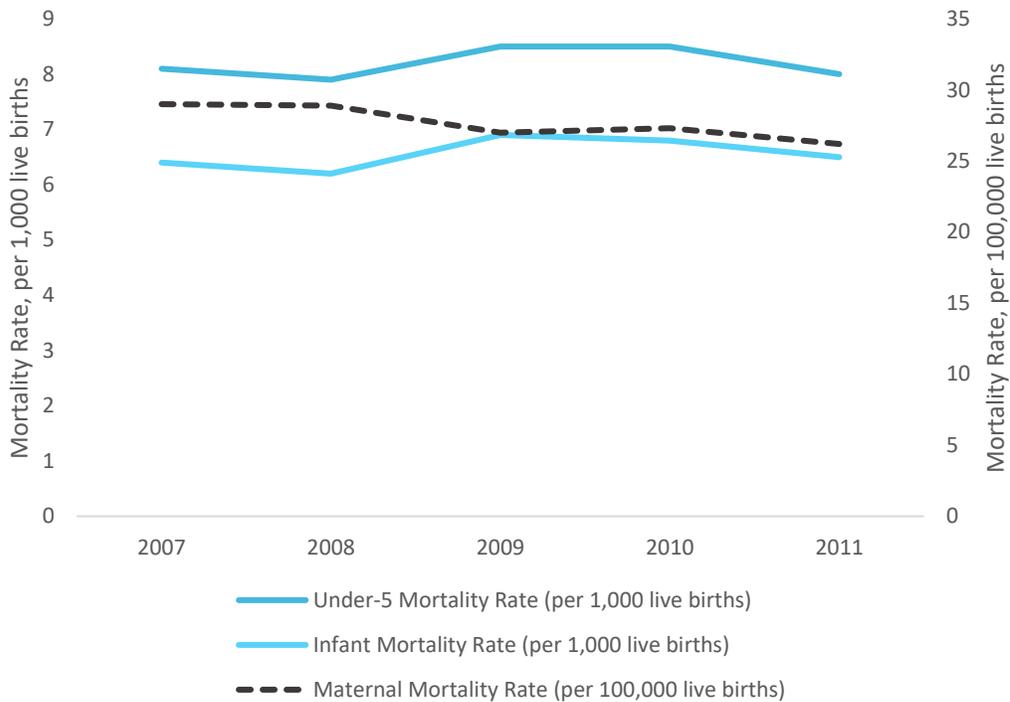
<sup>13</sup> Ibid.

<sup>14</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013).

<sup>15</sup> Ibid.

<sup>16</sup> Ibid.

**Figure 1. Maternal and Child Health Indicators**



Source: Ministry of Health (2007-2016).

**While non-communicable diseases (NCDs) are already the leading cause of morbidity and mortality, some infectious diseases remain a concern.** With four of the top five leading causes of mortality being NCDs, the epidemiological transition in Malaysia is more advanced than in most neighboring countries. According to the 2015 National Health and Morbidity Survey (NHMS), 56.4% of Malaysians are overweight or obese, and an estimated 17.5% of the population has diabetes.<sup>17</sup> However, analysis revealed that while NCDs account for 72% of the disease burden in Malaysia, less than 50% of public health resources at district level are dedicated to controlling risk factors for NCDs.<sup>18</sup> As spending patterns increasingly align with disease burden, pressure on public financing will increase, and resources will likely be diverted away from the prevention of communicable disease. While incidence rates for vaccine-preventable diseases remain low, some communicable diseases are still a concern. According to the MoH, Dengue presents the highest incidence rates, with about 393 cases registered every 100,000 people in 2015.<sup>19</sup> Tuberculosis follows as the second most common communicable disease, with 79.45 cases recorded every 100,000 people in 2015, and a mortality rate of 5.56.<sup>20</sup>

<sup>17</sup> Ministry of Health (2015b).

<sup>18</sup> IHSR (2013).

<sup>19</sup> Ministry of Health (2016).

<sup>20</sup> Ibid.

## STRUCTURAL AND POLITICAL TRENDS FOR HEALTH

**Eroded trust in the government will require political turnover to institute health system financing reforms.** Since 2015, Malaysian politics has been rocked by an embezzlement scandal that significantly affected public trust in the government. The sovereign fund 1Malaysia Development Berthed (1MDB) has been at the center of a multi-million corruption scandal since July 2015, when it failed to pay some of the USD 11 billion it owed to banks and investors. The scandal frustrated Malaysians, who are struggling with rising cost of living and a slower economy due to low oil prices. Due to this polarized political environment, and the high likelihood of a change of government, key reforms and policy changes for healthcare will likely be postponed until the next parliamentary elections, due to take place by August 2018. Healthcare reform has long been a political issue in Malaysia, and the government needs a strong standing to pass a comprehensive reform, as shown by the many failed attempts at reforming healthcare, including the establishment of a strategic purchaser.

**Social health insurance reforms have been on the table for decades without much progress.** In Malaysia, the idea of establishing a strategic purchaser in the form of a social health insurance was first introduced in 1960, but the lack of an affluent population and shortage of doctors were identified as key barriers. In 1985, a report from the Asian Development Bank recommended the creation of a National Health Security Fund, as reported in the 5<sup>th</sup> Malaysia Plan. However, it was not until the 7<sup>th</sup> Malaysia Plan, published in 1996, that the government put forward a plan for healthcare reform through a national health financing scheme. More recently, in 2009, the government proposed the 1Care for 1Malaysia reform, a mandatory social health insurance scheme aimed at achieving universal health coverage and providing continuity of care between private and public sector. This reform was a significant part of the governing party platform in the 2009 elections; however, popular support for the reform was low. The imposition of mandatory adoption was unappealing to the public, due to widespread preference for retaining autonomy on healthcare decisions. Moreover, the ideological undertones of social health insurance do not align with the current societal values of Malaysia, where many feel that they should not have to pay for other people's health care. This is also influenced by the ethnic diversity of Malaysia, which results in differential care seeking behaviors. Eventually, the 1Care for 1Malaysia 2009 reform was abandoned because it failed to gather sufficient support.

**Despite failed past attempts at healthcare reform, discussions on introducing a National Health Insurance (NHI) scheme are still ongoing.** As of 2016, the Malaysian government is again mulling the idea of introducing a National Health Insurance scheme, with the aim of improving access rates and the integration between the public and private sector. While much of the historical debate regarding an NHI in Malaysia centered around a mandatory social health insurance, today the Ministry of Health is discussing the implementation of a voluntary scheme, which would pool together a variety of funds—including social security, pensions, civil servants benefits, and employee funds—to offer a standardized package.<sup>21</sup> As civil servants represent a significant portion of the population, the proposed scheme would likely achieve good coverage even without the mandatory statute. Nevertheless, this is meeting opposition from health professional associations, who question the proposed scheme's ability to achieve universal coverage. Moreover, critics are also

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<sup>21</sup> New Straits Times (2016).

concerned about the entity that will be set up to run the scheme. Skepticism about the government's ability to create a corruption-free entity and fears that the modalities of appointing an administrator for the scheme will be an opportunity for disguised privatization are among the concerns flagged by the opposition. While official documents detailing the coverage package of the proposed scheme are lacking, experts speculate that immunization, including in immunization in the private sector, may be included in the benefits package.<sup>22</sup>

**Currently, the Ministry of Health is the funder, provider, and regulator of public healthcare in Malaysia, which is highly centralized and heavily subsidized.** In Malaysia, the management of public health care is under the jurisdiction of the federal government, and both funding and policy-making are highly centralized. The Ministry of Health is responsible for formulating and implementing policies and programs through its central, state, and district offices. Decision-making at local levels is very limited and local managers have little freedom, including over the hiring and firing of staff.<sup>23</sup> In government facilities Malaysians can access a wide range of services—from preventive to tertiary care—at very low costs, thanks to extensive subsidies. Fees levied in public health facilities have not been updated since 1982, with outpatient and specialist treatment costing RM 1 and RM 5 (approximately 0.23 USD and 1.17 USD) respectively.<sup>24</sup> Inpatient charges are also quite low, with a maximum fee of RM250 (approximately 60 USD).<sup>25</sup>

**A robust, fee-for-service private health sector exists alongside Malaysia's public health system, with poor coordination between the two.** Despite very low public-sector fees, a significant share of the Malaysian population chooses to purchase health services in the private sector. In 2009, more than 80% of inpatient care took place in the private sector.<sup>26</sup> While the share of Malaysians using private facilities for outpatient care dropped to 35%, it is estimated that most primary care in urban areas is provided by private doctors.<sup>27</sup> The ability to pick a preferred practitioner, as well as significantly shorter waiting times are among the factors contributing to high private sector utilization rates. This is a key driver of high out of pocket rates in Malaysia. Since private insurances amount to less than 16% of private health expenditure, out of pocket expenditure in Malaysia finances up to 35% of total health expenditure.<sup>28</sup> As a national health insurance scheme is currently lacking, no service provided in private facilities is financed or reimbursed by public funds—including those services, such as immunization, that are offered for free in government facilities. High out of pocket rates and uneven distribution of resources between public and private sector are a major concern for the government. Better integration between the two systems, including through a national health insurance scheme, is a key government priority.

## DEMAND AND ACCESS TO HEALTH SERVICES

**Despite good physical access to health facilities, utilization rates of outpatient health services in Malaysia are low.** An estimated 92% of the urban population and 69% of the

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<sup>22</sup> Ng, C.W. (2015).

<sup>23</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013), p. 19

<sup>24</sup> Khoo, V.J. (2016).

<sup>25</sup> Ibid.

<sup>26</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013).

<sup>27</sup> Ibid., p. 18

<sup>28</sup> World Health Organization (2014).

rural population live within 3 km of a health facility, although distances are greater in Eastern Malaysia.<sup>29</sup> Access to primary care in the public sector is channeled through health clinics and community clinics. Health clinics offer a wider range of outpatient services and are present in a ratio of 1 for every 20,000 citizens, while community clinics only offer MCH care—including immunization—home care, and family planning and are more widespread throughout the territory, with a ratio of 1 clinic for every 4,000 people. Additionally, in 2015, Malaysia had an estimated 203 mobile health teams providing outreach services, including immunization, to remote populations.<sup>30</sup> Despite good physical access, the latest National Health and Morbidity Survey (NHMS V) estimated that, on average, Malaysians visit outpatient clinics only 3.23 times a year.<sup>31</sup> While utilization rates in Malaysia are relatively low, access to health care is well distributed across income groups. Still, there are significant differences in the utilization of the public and private sectors—with the poorest 50% of Malaysians accounting for two thirds of outpatient consultations in the public sector, and the richest 50% accounting for two thirds of outpatients visits in the private sector.<sup>32</sup>

## IMMUNIZATION ACCESS AND COVERAGE

**The National Immunization Program (NIP) are provided free of charge in public health facilities.** The Malaysian National Immunization Program offers a comprehensive schedule of routine vaccines, including traditional vaccines against hepatitis B, poliomyelitis, tuberculosis, diphtheria, pertussis, haemophilus influenzae type b, tetanus, measles, mumps, and rubella, as well the more recent vaccines against Japanese encephalitis—offered as part of the NIP in one state—and HPV. Malaysians can access all vaccines included in the NIP for free in all health and community clinics administered by the Ministry of Health, as well as through the mobile health teams that provide outreach services to remote areas. The BCG and HepB birth doses are delivered in hospitals, while all other infant vaccines are delivered at community health center or by mobile teams. The HPV vaccine is delivered through school-based strategy only to 13-year-old girls.

**Table 2. Malaysia National Immunization Schedule**

Antigens (Vaccines)	Schedule
1 HepB	at birth, 1,6 months
2 BCG	at birth
3 DTP-Hib-IPV	2, 3, 5, 18 months
4 Measles	6 months
5 MMR	9, 12 months
6 JE	9, 21 months (Sarawak only)
7 MR	7 years
8 DT	7 years

<sup>29</sup> Jaafar, S., Noh, K. M., Muttaliba, K. A., Othman, N. H., & Healy, J. (2013), p. 31

<sup>30</sup> Ministry of Health (2016).

<sup>31</sup> Ministry of Health (2015b), p. 149

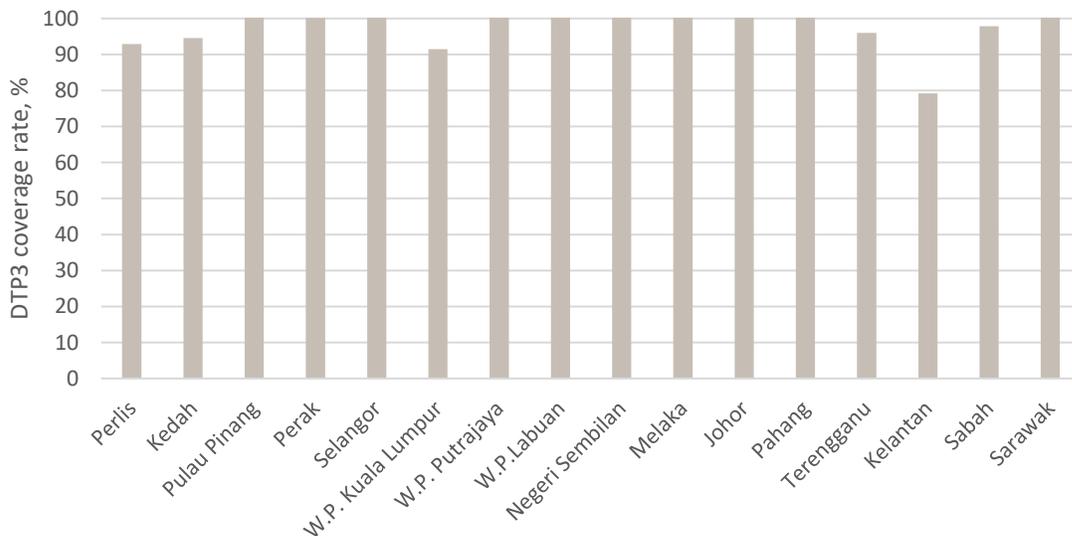
<sup>32</sup> Rannan-Eliya, R.P., Anuranga, C., Manual, A., Sararaks, S., Jailani, A.S., Hamid, A.J., Razif, I.M., Tan, E.H., Darzi, A. (2016).

9 HPV	13 years
10 Tetanus	15 years

Source: Luu, Y. M. (2015). Immunization Schedule.

**High coverage rates are consistent across the country, with over 90% of the states achieving DTP3 coverage above 90%, and 60% of the states achieving over 99% of coverage in 2015.** Of Malaysia’s 16 states, only Kelantan had immunization coverage rates below 90%.

**Figure 3. DTP3 coverage rates by state, 2015**



Source: Ministry of Health, M. (2016). Health Indicators 2016.

**An estimated 20% of Malaysians chooses to get immunized in the private sector through out of pocket payments.** Despite having access to free vaccines in public health facilities, a significant portion of the Malaysian population accesses immunization in the private sector. This may be driven by greater availability of new and underutilized vaccines at private facilities. However, private sector utilization rates in cities are especially high for primary care, suggesting that Malaysians may be opting to get immunized in the private sector simply because of convenience and preference. As evidence on immunization access rates by vaccine in the private sector is lacking, it is unclear to what extent Malaysians are using private sector facilities for immunization provided under the NIP.

## DEMAND FOR IMMUNIZATION SERVICES

**While immunization coverage rates remain high, vaccine refusal due to religious considerations and preference for alternatives is a significant concern in Malaysia.**

According to the Director General of Health, the number of parents refusing vaccination in public facilities grew from 470 in 2013 to 1292 in 2015.<sup>33</sup> Reports indicate that preference for homeopathy and alternative medicine, including the cupping practice, are among the

<sup>33</sup> Fong, L. F. (2015).

determinants of vaccine refusal.<sup>34</sup> Concerns over safety and on the halal status of vaccines are also driving vaccine hesitancy, as well as the belief that some vaccine preventable diseases are not harmful.<sup>35</sup> To counter these trends, the government has collaborated with religious authorities which have issued a fatwa in favor of vaccination. The Malaysian Pediatric Association (MPA) is another key player in addressing vaccine hesitancy.

**All vaccines currently in the NIP schedule are supplied by foreign pharmaceutical companies, but domestic manufacturing of halal vaccines is increasingly of interest in Malaysia.** While the perceived quality of foreign vaccines is good, patients are concerned about the halal status of the vaccines. Besides acknowledging public demand for halal-certified products, the Malaysian government sees domestic production of halal vaccine as an economic opportunity to be developed as part of Economic Transformation Program. Within this framework, the government has partnered with the Saudi investment company Aljomaih Group to create AJ Biologics, a vaccine manufacturing facility based in Malaysia. AJ Biologics, which plans to start commercial operations by the first quarter of 2018, will not produce any vaccine currently in the NIP schedule.<sup>36</sup>

## HEALTH FINANCING AND IMMUNIZATION

### IMMUNIZATION COSTS

**The public budget for immunization has remained stable over the past years, and key informants maintain that there are no shortfalls in immunization funding for the current NIP.** While disaggregated immunization budgets are not publicly available, government self-reporting to the WHO shows that the Ministry of Health spent about 137 million RM (approximately 31.5 million USD) on vaccine procurement in 2016. This represents an increase from 130 million RM in 2015 and 128 million RM in 2013. Over the past 10 years immunization expenditure increased steadily, with a 128% spike in procurement costs in 2010, when a new vaccine was introduced. While the competition for health budget is increasing due to epidemiological shift and slower economic growth, according to the Deputy Director General for Public Health, there are never shortfalls in the immunization budget.

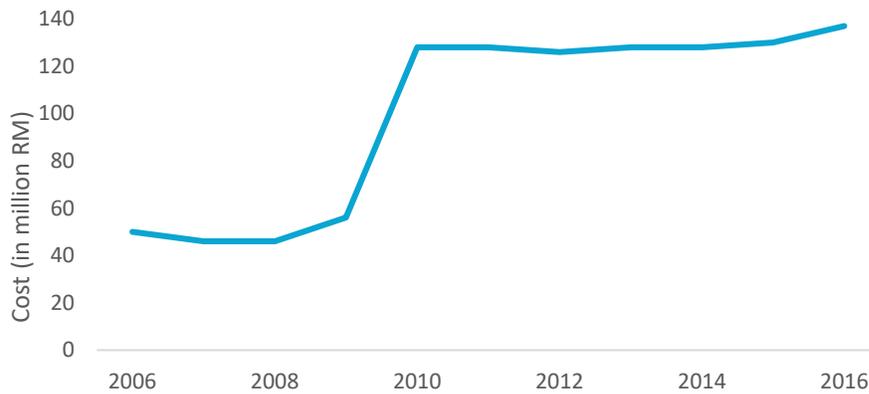
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<sup>34</sup> Lim, W.Y., Amar-Singh, H.S.S., Jeganathan, N., Rahmat, H., Mustafa, N.A., Mohd Azizi, F. S, Rahman, R., Itam, S., Chan, C.H., and Julia, M.S.N. (2016).

<sup>35</sup> Mohd Azizi, F. S., Kew, Y., Moy, F. M. (2017).

<sup>36</sup> Interview Dr. Tabassum Khan Managing Director, AJ Pharma Holding (UAE), State of the Global Islamic Economy 2016. (2016).

**Figure 5: Vaccine Procurement Costs, 2006-2016 (in million RM)**

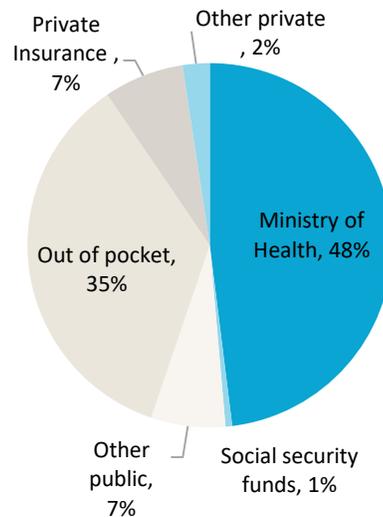


Source: WHO (2017b).

## GENERATION

**Public funds account for the majority of health expenditure in Malaysia, although out of pocket expenses remain high.** In 2014, public funds amounted to over 55% of total health expenditure, amounting to approximately 7.52 billion USD, with the Ministry of Health being greatest contributor. Nevertheless, out of pocket expenses remain high, amounting to 35% of total health expenditure and almost 79% of private health expenditure, for a total of 4.81 billion USD in 2014.<sup>37</sup> As is usual in upper-middle income country, external sources for health financing in Malaysia are negligible.

**Figure 6: Health System Funding Sources, 2014**



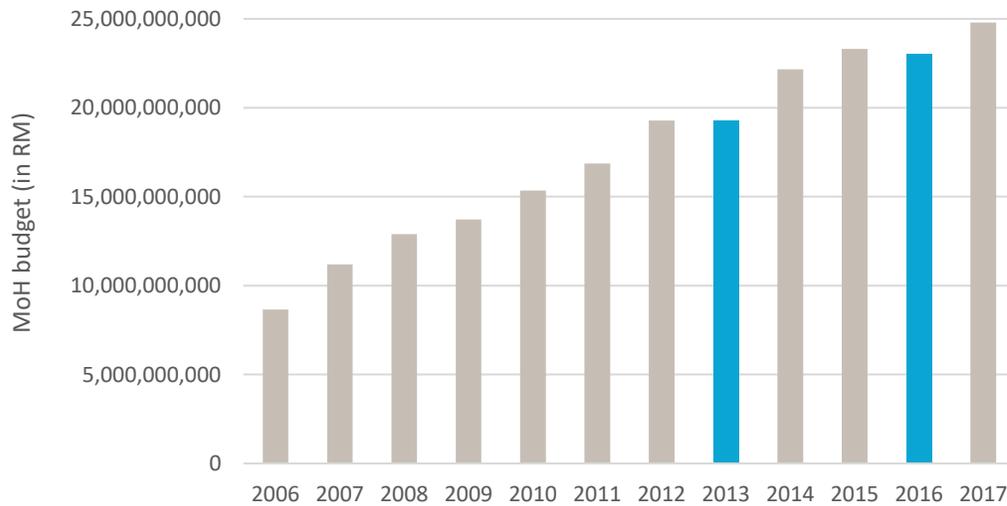
Source: WHO "National Health Accounts".

**The budget of the Ministry of Health is fully funded by general government revenue and no innovative financing tools are being used nor discussed.** The Ministry of Health budget is approved annually by the Ministry of Finance and it is fully funded by government's general revenue. In 2016, the Ministry of Health suffered a 10% budget cut,

<sup>37</sup> World Health Organization (2014).

down to RM23.03 billion from RM23.31 billion in 2015.<sup>38</sup> However, in 2017, the Ministry of Health managed to secure a RM25 billion budget.<sup>39</sup> As the public health budget is fully reliant on general government revenue, funding is subject to shocks affecting the Malaysian economy. However, even as pressure for resources increases, innovative financing tools such as sin taxes and earmarking for health are not being considered. According to key informants, the only discussion regarding new policies on healthcare financing are those around the introduction of a National Health Insurance scheme.

**Figure 7: Health Budget (2006-2017)**



Source: Ministry of Health (2007-2016).

## ALLOCATION OF RESOURCES

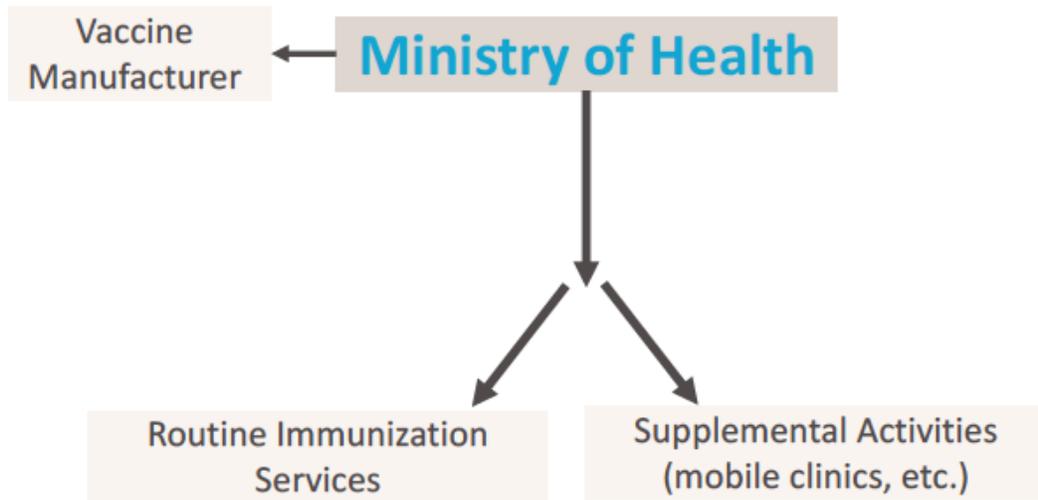
**Immunization is fully funded by general government revenue as a line item in the Ministry of Health budget.** As purchaser and provider, the Ministry of Health procures vaccines centrally and is responsible for financing the delivery of vaccines throughout the country. Both routine immunization and supplemental immunization activities (SIAs) are centrally funded by the Ministry of Health.

<sup>38</sup> Khoo, V.J. (2016).

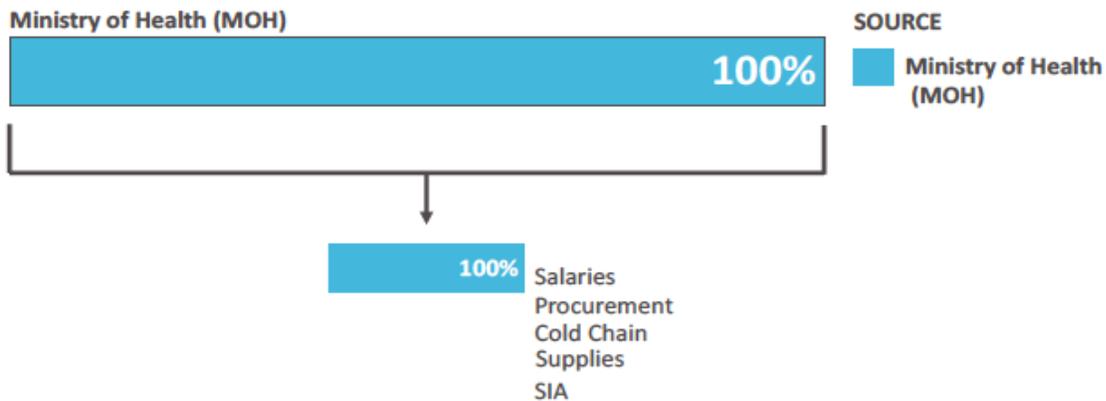
<sup>39</sup> Lau, B. (2016).

Figure 8. Who Pays for Immunization?

ACTORS.



SOURCES.



Note: Allocation by cost categories remains unknown for Malaysia.

NEW AND UNDER-UTILIZED VACCINES SCALE UP IN COUNTRY

Although use of health technology assessments in Malaysia is increasing, the Malaysian Health Technology Assessment MaTHAS is not a key player in NUVI scale up. Founded in 1995, the Malaysia Health Technology Assessment (MaHTAS) is the oldest HTA body in the region. While MaHTAS activity has increased significantly in recent years, its role in the introduction of new vaccines into the NIP appears limited. Even if MaHTAS assesses a vaccine to be cost effective, it may not be introduced into the schedule. Moreover, the MaHTAS does not always play a role in technology assessment. Examples exist where

MaHTAS was forgone for assessments from the National Pharmaceutical Regulatory Agency (NRPA) alone. The NRPA, which falls under the Pharmaceutical Division of the Ministry of Health, is tasked with licensing new drugs and biologics for public and private sector use and does not disclose its assessments to the public.

**The National Committee on Immunization Practices (NCIP) was introduced in 2016 following pressure from vaccine advocates.** The NCIP is tasked with providing the Ministry of Health with policy guidance in matter concerning immunization. The Committee is composed of six to eight government-affiliated members, who meet twice a year and occasionally invite physicians or researchers for external inputs. NCIP meetings are currently closed-doors and the outcomes of the meetings are not public. The governance and functioning of the committee is not highly structured, leaving its members with a significant degree of discretionary power.

**Fiscal sustainability and lack of political will are key barriers to the introduction of new vaccines in Malaysia.** The National Committee on Immunization Practices regularly requests evidence from the MaHTAS and from the other bodies within the Ministry of Health, such as the Family Health Division. However according to key informants, budget considerations and political will are the key determinants of the introduction and scale-up of new and underutilized vaccines.

## DISCUSSION OF IMMUNIZATION FINANCING IN TRANSITION: KEY TRENDS AND TAKEAWAYS

**Malaysia's current NIP package is sustainably financed through existing mechanisms and the introduction of innovative financing tools is unlikely.** Vaccine procurement and immunization program costs in Malaysia are funded as a Ministry of Health central budget line item. The health budget is fully financed through general government revenue, and there is little political interest in innovative financing tools for health in general and for immunization, in particular. This is due to the fiscal sustainability of the existing NIP package, which according to key informants it is under little financial pressure.

**Budget considerations are a key barrier to the expansion of the NIP schedule.** While the existing NIP schedule does not suffer budget shortfalls, the fiscal space to introduce new vaccines is very limited. The Ministry of Health is very cautious in introducing new vaccines due to budget consideration associated with vaccine price and additional program costs, even when the vaccine does have political support.

**Although still years down the road, the introduction of a social health insurance could facilitate expansion of the NIP schedule.** According to key informants, the Ministry of Health will likely include immunization into the proposed social health insurance scheme benefits package. This would present the opportunity of subsidizing the new vaccines already offered in the private sector through co-payment mechanisms. Efficiency gains from a social health insurance could potentially lead to the adoption of new vaccines into the NIP. As the SHI in Malaysia is at the design stage, there is significant scope to learn from those countries in the region that have already included immunization in the national health insurance package.

**Immunization financing is highly political in Malaysia, and the introduction of new vaccines has been largely dependent on political will.** While budget constraints are

significant, past introductions of new vaccines have showed that political pressure are the key driver of the expansion of the National Immunization Program.

**Individual capacity and institutional setup for a more evidence-based approach to new and underutilized vaccines introduction are already present in Malaysia.** While the politics of new vaccines introductions are still very strong, steps are being undertaken towards a more formalized and systematic prioritization mechanism, thanks to pressure from vaccine advocates. The introduction of the National Committee on Immunization Practices is an example of that. The role of advisory committee is expected to expand and Malaysia could benefit from successful examples of evidence-based immunization financing already present in the region.

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