

Sustainable Immunization Financing in Asia Pacific

August 2017

BREAKING NEW GROUND



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ACRONYMS

		MoF	Ministry of Finance
BCG	Bacille Calmette-Guerin	MoH	Ministry of Health
BIAS	Bulan Imunisasi Anak Sekolah (school-based immunization program)	MR	Measles-Rubella
		MSS	Minimum Service Standards
BPJS	Badan Penyelenggara Jaminan Sosial (Social Security Health Administrator)	NADFC	National Agency of Drug and Food Control
		NCD	Non-Communicable Disease
DTP	Diphtheria-Tetanus-Pertussis	NIP	National Immunization Program
cMYP	Comprehensive Multi-Year Plan	NUVI	New and Underutilized Vaccine Introduction
DAK	Dana Alokasi Khusus (earmarked central transfer)	OOP	Out of Pocket Payment
DDC	Department of Disease Control	PCV	Pneumococcal Conjugate Vaccine
DHO	District Health Office	SAGE	Strategic Advisory Group of Experts on Immunization
GDP	Gross Domestic Product	SHI	Social Health Insurance
Hep B	Hepatitis B	Td	Tetanus-Diphtheria
HTA	Health Technology Assessment	THE	Total Health Expenditure
HPV	Human Papilloma Virus	TT	Tetanus Toxoid
IPV	Inactivated Polio Virus	UHC	Universal Health Coverage
ITAGI	Indonesia Technical Advisory Group on Immunization	UNICEF SD	UNICEF Supply Division
JE	Japanese Encephalitis	VAT	Value Added Tax
JKN	Jaminan Kesehatan Nasional (National Health Insurance mechanism)	WHO	World Health Organization
MCV	Measles Conjugate Vaccine		

KEY MESSAGES

<p>Context</p>	<ul style="list-style-type: none"> – Indonesia expects to benefit from moderate economic growth, stable cohorts of new children to immunize, and slow but steady improvements in child health outcomes and immunization coverage. – The burden of disease is shifting, with NCDs increasing and communicable diseases (including vaccine-preventable diseases) decreasing. There will be new demands on the health system, requiring the immunization program to compete for resources. – Indonesia is one of the top 10 countries with the most unvaccinated children.
<p>Immunization Financing</p>	<ul style="list-style-type: none"> – Despite Indonesia's strong economic performance in the last two decades, its growth has not translated efficiently to government social spending, with low public expenditure on health (6% of GDP in 2014) and large levels of support for the immunization program still coming from donors. – The government will need to direct significant additional resources to immunization to bring the current vaccine schedule in line with international recommendations and other middle-income countries in the region, and to finance plans for new vaccine introductions. – The multiple sources of financing for the program produces complexity in understanding roles and responsibilities, threatening its performance.
<p>Key Findings</p>	<ul style="list-style-type: none"> – Indonesia is highly decentralized, with local priorities continuing to rule health spending. However, most local governments miss their health allocation targets and fail to execute their entire budget. – The central government has limited ability to influence how resources are allocated at the district level where delivery is done, thus high variability in outputs and outcomes in immunization persists. – The implementation of a national health insurance mechanism, JKN, is facing worrisome fiscal deficits and will not likely reach its 2019 universal coverage target. There is potential for JKN to take on more financing for the immunization program, but it is unclear if the deficit will prevent expansion of the benefits package or support further coverage of prevention services.
	<ul style="list-style-type: none"> – With the country's impending transition to fully self-financing its immunization program in 2019, Indonesia needs to find new sources of new resources to replace the 10-15% externally financed share of the immunization program budget. – While earmarked taxes have not yet been politically viable, there are plenty of efficiency gains to be had to increase fiscal space.
	<ul style="list-style-type: none"> – Prioritization of new and underutilized vaccine introductions is closely linked to the production capacity of domestic manufacturer BioFarma. The country holds an exclusive procurement agreement with the state-owned company. – The ITAGI is relatively nascent and relies heavily on WHO recommendations and secondary findings from neighboring countries.

INTRODUCTION

Indonesia, a country consisting of over 6,000 inhabited islands, is in the middle of a long-term transformation of its political and health systems. Decentralization and democratization, initiated in 1999, partnered with a new national health insurance mechanism, have affected how healthcare is financed and prioritized, with funding and outputs varying widely among the 514 districts. The pending exit of Gavi, the Vaccine Alliance (Gavi) funding – 9% of the current immunization program budget – and continuous reduction of donor assistance will place pressure on the public budget for the immunization program, supporting movements for improved decentralized management and involvement of the new national health insurance scheme in directing funds towards immunization.¹ Understanding the political economy of the country, the financing flows, and how these factors that support or deter the prioritization of funding for immunization programming will be essential to improve coverage rates and an expanded the schedule for immunization, financed in a sustainable manner.

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

Indonesia's strong economic growth, and expected continued growth in the years ahead, provides the revenue necessary to make continuous investments in social programs, including healthcare.² Indonesia's economy is considered one of the best performing emerging market economies and grew at an average annual rate of 4.1% between 1995 and 2015 (Figure 1).³ Indonesia's favorable economic outlook is attributed to its young population, low public debt, large domestic markets, wealth of natural resources, and stable political system.⁴ Growth has slowed in recent years due to decreases in foreign direct investment, oil revenues, and slumping commodities prices.⁵ Nevertheless, moderate growth at 5-6% per year is expected through 2020, during which time Indonesia will likely transition from lower-middle income to upper-middle income status.⁶

¹ World Bank (2016).

² Dieng, I (March 16, 2017).

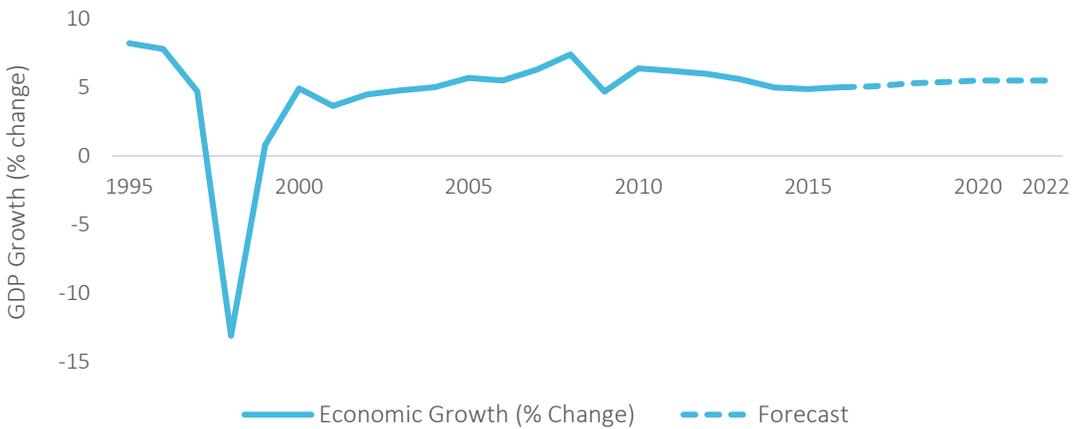
³ World Bank (2017b)

⁴ Dieng, I (March 16, 2017).

⁴ Ibid.

⁶ International Monetary Fund (April, 2017).

Figure 1. Year-on-Year Economic Growth (1995-2022)



Source: World Bank (2017b).; International Monetary Fund (April, 2017).

Strong economic growth is producing a burgeoning middle class that will demand increased healthcare quality and options. Given the economic stability, the middle class is estimated to grow by over 90 million consumers by 2030, reaching 135 million people (>40% of the projected population).⁷ This growing segment of the population has expendable resources and a historic proclivity for mobilizing around political issues.⁸ This includes issues of healthcare quality and preferences on sources of healthcare.⁹ As income rises for the middle class, utilization of pharmaceuticals and private facilities is expected to increase. With greater purchasing power comes increased value of brands. Studies from similar emerging economies demonstrate that a growing middle class is more willing to pay out-of-pocket for branded drugs, fewer side-effects, and greater effectiveness.¹⁰ Demand for vaccines not included in the National Immunization Program (NIP), and only accessible in the private sector, will likely increase due to the growing middle class as well as greater awareness of health.

DEMOGRAPHIC TRENDS

Indonesia is undergoing a demographic transition with declining fertility and population growth rates. Fueled in part by economic growth and improvements in public health, life expectancy at birth increased dramatically from 1960 to 1990 and has been steadily rising since.¹¹ In addition, the government's long-term focus on family planning contributed to a significant decline in fertility rates over the same period.¹² The fertility rate has remained steady at 2.5 births per woman since 2000, with the rate expected to decrease further but remain over replacement levels through 2030. Indonesia's steady birth cohorts allow for predictable planning and budgeting of the routine immunization package.

⁷ Oberman et al. (2012).

⁸ Arnold, D (September 6, 2016).

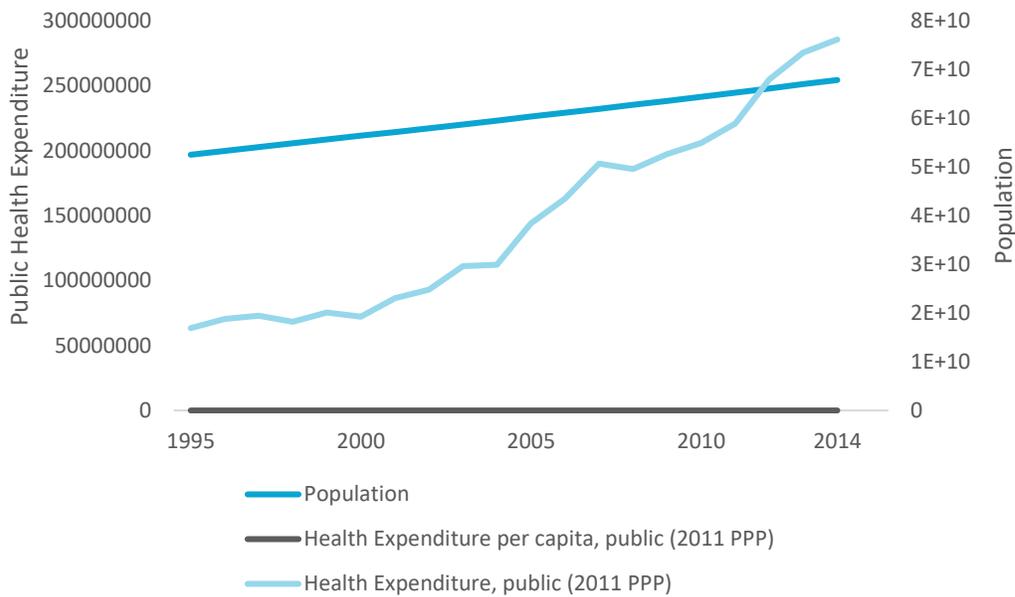
⁹ Figgis, P (2015-2017).

¹⁰ McKinsey & Company (2012).

¹¹ World Bank (2017b).

¹² Mize L and B Robey (2006).

Figure 2. Health Expenditure Over Time in Relation to Population Growth



Source: World Bank (2017b)

A rapid increase in the population aged 65 and over is expected, placing greater importance on immunization throughout the lifespan. Life expectancy at birth increased dramatically from 1960 to 1990 and has been steadily rising since.¹³ With stable birth cohorts and increasing life expectancy, the population aged 65 and older is projected to nearly double by 2030.¹⁴ This population segment presents a new market for lifecycle vaccines. As this population grows, the cost-effective value of preventative health interventions across the lifespan will increase. The government and providers (both public and private) will be pressured to expand the current immunization schedule to accommodate the aging population.

HEALTH OUTCOMES

Indonesia has made great strides in improving maternal and child health, edging closer towards its Sustainable Development Goals. Investments in improved sanitation, immunization coverage, and other child health programs supported Indonesia’s impressive decline in its under-five and infant mortality rates (Figure 3).¹⁵ Indonesia is not far from attaining the sustainable development goal target for under-5 mortality of <25 deaths per 1,000 live births, although the maternal mortality rate, at 126 deaths per 100,000 live births, is far from the target of <70.¹⁶ In addition to focusing on maternal health, tackling childhood malnutrition and income and geographic inequalities will continue to be a major challenge in improving health outcomes.¹⁷

Several vaccine preventable diseases remain prevalent. Indonesia’s burden of a set of seven vaccine preventable diseases declined sevenfold, from 24,165 cases in 2006 to 3,052

¹³ World Bank (2017b).

¹⁴ World Bank (2016).

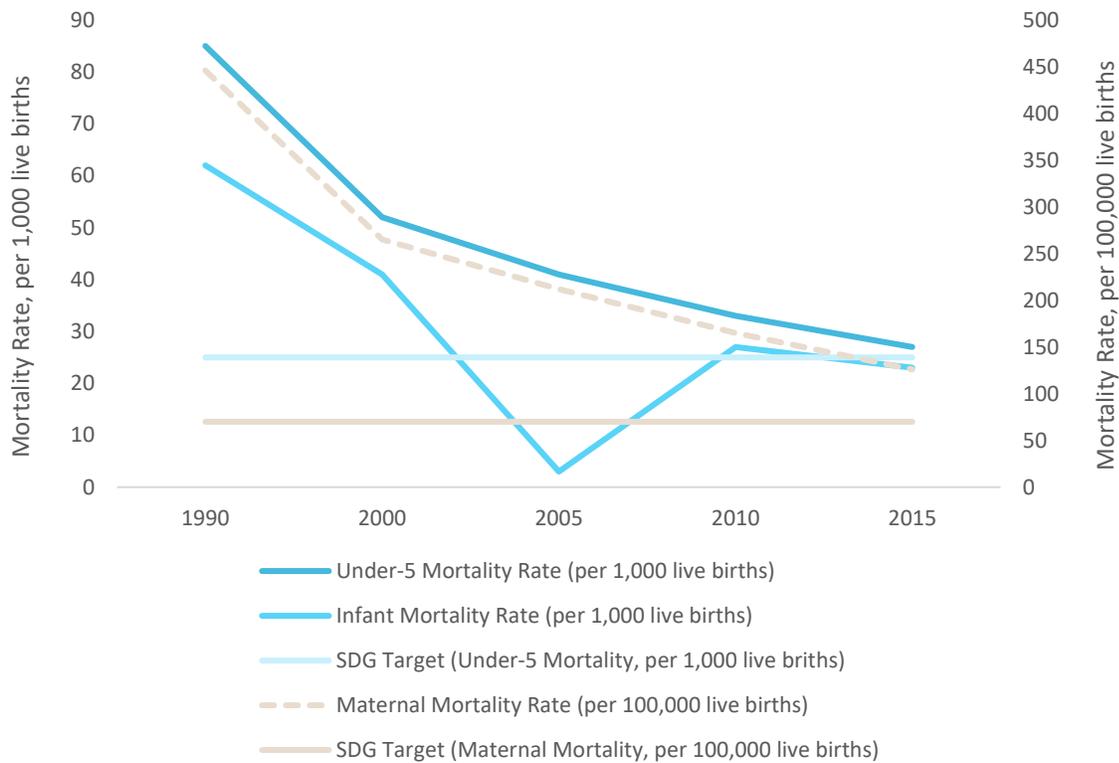
¹⁵ Dibley, M and M. Budiharsana (February 8, 2015).

¹⁶ WHO (2016).; World Bank (2017b).

¹⁷ World Bank (2016).

in 2015.¹⁸ However, the burden of vaccine-preventable diseases remains too high. The burden is highest for vaccines not yet included in Indonesia's routine schedule.

Figure 3. Maternal and child health indicators



Source: World Bank (2017b).

Shifts in the burden of disease are pulling focus towards non-communicable diseases, which may affect the commitment to and focus on immunization in the coming years. The success of vaccines in decreasing cases of communicable diseases, in combination with an aging population and lifestyle changes, will continue to shift the burden of disease towards non-communicable diseases (NCDs). Between 1990 and 2015, NCDs increased from 37% to 66% of the total burden of disease, while communicable diseases, including vaccine-preventable diseases, fell from 56% to 27% of the burden.¹⁹ The burden of NCDs is expected to rapidly increase as Indonesia finishes its epidemiological transition.²⁰ There will be new demands on the health system, requiring preventative health programs, including immunization, to compete for scarce resources. Currently, of the three national health priorities of maternal and child health, preventative and promotive care, and disease control, immunization falls as a priority program within disease control and NCDs fall within the preventative and promotive priority. Both programs have thus been protected and prioritized within the current 5-year plan. However, planning for the 2020-2025 plan has begun and this landscape could change. Indonesia has already set up a NCD unit within the

¹⁸ Inclusive of polio, diphtheria, pertussis, neonatal tetanus, measles, rubella, congenital rubella syndrome, and Japanese encephalitis. (WHO Regional Office for South-East Asia. August 31, 2016.)

¹⁹ Institute of Health Metrics and Evaluation (2016).

²⁰ World Bank (2016).

Ministry of Health (MoH) and has a multi-sector NCD strategy with multiple action plans based around preventative primary care.

STRUCTURAL AND POLITICAL TRENDS FOR HEALTH

Indonesia underwent a profound change over the past two decades, transitioning from a centralized authoritarian regime to a decentralized democratic state. In 1998, following the Asian financial crisis, poverty levels doubled and a disaffected populace forced President Suharto and his “New Order” to resign after a 31-year rule.²¹ In the years that followed, rapid socio-economic development was underpinned by a legacy of command and control decision-making, restricted and thus inexperienced civil society, and weak local polities. Following the emergence of several secessionist movements, financial and political decentralization was organized around empowering district governments to prevent provinces from serving as a rallying point for such movements. Decentralization was employed in 2001 to establish broader buy-in to the new system and facilitate bottom-up development.

Local priorities will continue to rule health spending and local leaders will be pertinent to financing for immunization in decentralized Indonesia. High levels of decentralization and low levels of accountability present difficulties in setting central health directives and delivering on them. While there is central control of supplies procurement and planning of immunization programming, operations and immunization delivery are the responsibility of subnational governments. Centrally assigned budgets are then spent on locally defined priorities. There are limited oversight mechanisms and feedback loops between central and district governments, and annual central-local budget transfers are not based upon performance. Provincial health offices – accountable to the provincial governor and not the MoH – manage provincial hospitals and coordinate health care at the district level. District health offices (DHOs) – accountable to the MoH and the district government, but not the provincial health offices – manage all other public facilities and procure and distribute medical supplies.²² Moreover, MoH transfers go to district governments which report to the Ministry of Home Affairs, not the MoH. Budget monitoring is weak and there is wide variation between plans/allocations and expenditures. The central government, therefore, has neither mechanism to incentivize outputs or outcomes from its investments, nor influence over how resources are allocated and spent at the district level where delivery is done. While multiple factors impact the effectiveness of local governance in policy implementation and spending, the capacity and motivation of local leaders is one of the most important.

The Ministry of Health is exploring a new program as a method to improve governance and accountability within the health system as a means to advance immunization services and financing. Indonesia’s government currently operates with Minimum Service Standards (MSS), outlined by the central government and implemented by local governments. These standards are key performance indicators, meant to ensure quality public services for the population of Indonesia. The MoH and NIP managers have included child immunization coverage as a key indicator. However, there are currently no mechanisms to penalize or reward districts with regards to compliance. Efforts to increase oversight of MSS outputs could have positive effects on local immunization investment. The MoH is developing a performance-based financing scheme for district block grants with districts judged and

²¹ Sumarto, S. and S. Bazzi (2011).

²² Hort K. and W. Patcharanarumol (Eds.) (2017).

monetarily incentivized based on MSS achievements. They hope to roll-out this program in the next couple of years, but the proposed decree has not been ratified by the Ministry of Home Affairs and stakeholders are dubitative of its implementation in the short term. The World Bank has taken interest in the initiative and could potentially leverage a loan for its ratification.

Health is a priority issue for Indonesian citizens and the government, allowing for civil society to increase pressure on politicians to continue making change. President Joko Widodo, a strong advocate of universal health coverage (UHC), moved his political career forward with help, in part, from a public health agenda. While Governor of Jakarta, he piloted the Jakarta Health Card, a precursor to Indonesia's UHC scheme.²³ His successful presidential campaign included UHC in its platform. Widodo's continued focus on health has created a favorable political platform for health reforms and attracted investment into the sector. Indonesia has leveraged this political momentum to overhaul the health insurance system in favor of achieving UHC, and improving basic health services like immunization. Several civil society organizations, including Save the Children, World Vision Indonesia, White Ribbon Alliance Indonesia (Aliansi Pita Putih Indonesia/APPI), PKBI/Indonesian Planned Parenthood Association (Member Association of IPPF), Muhammadiyah, and Plan Indonesia, are focused on maternal and child health and work with the MoH on immunization program needs.

Box 1. Jaminan Kesehatan Nasional (JKN) Summary

JKN is the mechanism under which Indonesia consolidated its various national health insurance schemes with the aim of providing coverage for all Indonesians by 2019. JKN covers medical and non-medical benefits without caps, but excludes aesthetics, orthodontics, infertility treatments, drug rehabilitation programs and claims related to extreme hobbies, services performed overseas, etc. Primary facilities are paid a capitated fee depending on the number of JKN beneficiaries enrolled with each facility as their designated primary care provider. Hospitals are reimbursed for case-based care where a fixed fee is paid to cover all services associated with an episode of care. JKN utilizes a high-level performance-based financing system that can decrease payments if facilities perform poorly on three indicators: 1) total utilization rate, 2) no non-specialized referrals, 3) Preventive activities for chronic diseases offered.

The scheme is mandatory for all civil servants, military, police, and salaried workers, with their employers contributing, and all citizens classified as "poor" or "near poor" receiving subsidized coverage from the government. Informal workers are also expected to participate, though JKN has experienced difficulties in reaching them as they must elect to register and pay premiums. The gap in the pool of beneficiaries has created financial troubles for JKN. After two years of operation, BPJS, the purchasing institution for JKN, was running a US\$1.48 billion deficit. Estimates released in 2015 predicted an accumulated deficit of US\$12.9 billion by 2019. Though coverage of the poor is succeeding and coverage of higher-income, salaried workers is strong, the missing middle of informal workers who have funds to input into the scheme is an unsustainable problem. As of early 2017, 67% of the population is covered by JKN.

With goals of achieving universal health coverage, Indonesia consolidated a number of public health insurance mechanisms under the umbrella of JKN in 2014. The basis for UHC emerged in 2004 with the National Social Security System Law. Up until that point, only civil service, military, and police were covered by national insurance, and each with their own program. Some private companies also contributed to health insurance for their workers.

²³ Economist Intelligence Unit (January, 2015).

Indonesia opted for a staged roll-out of the national scheme rather than a big-big reform. Over the next 10 years, Indonesia initiated programs focused on the poor and near-poor, and later on pregnant women, in an effort to reduce child and maternal mortality rates. At the same time, a variety of localized health insurance schemes collectively known as Jamkesda were operating. Finally, in 2014, after years of support from numerous politicians and multiple parties, all the existing schemes were consolidated under JKN with the goal of extending coverage to all Indonesians by 2019. JKN coverage in early 2017 was around 67% of the population.²⁴ Since JKN's commencement, delivery of the NIP has not been explicitly included in the benefits package. However, the primary care capitation payment to facilities may tangentially cover some of the operations costs that benefit the immunization program.

DEMAND AND ACCESS TO HEALTH SERVICES

Utilization of health services is increasing but remains low, and high variation in utilization exists by geographic area and population economic status. Both outpatient and inpatient utilization has been increasing, but utilization rates vary greatly by province. For example, less than 10% of the population in Maluku province used outpatient care in the last 30 days, compared to more than 20% of the population in the provinces of Bali, Yogyakarta, and East Nusa Tenggara.²⁵ This mirrors the trend in immunization access and coverage where Maluku province has much lower coverage rates than the provinces of Bali, Yogyakarta, and East Nusa Tenggara, among others.²⁶ Utilization is also increasing among the poorest 40% of the population.²⁷ Although, immunization has not mirrored healthcare utilization rates for the bottom 40% for all vaccinations, with BCG and DTP3 rates for the bottom 40%, dropping between 2007 and 2013 (12.05 and 1.2 percentage points respectively).²⁸

Private sector facilities play a large and expanding role in Indonesian healthcare. While public facilities dominate rural service, private facilities have a large presence in urban areas and are growing in number throughout the country.²⁹ Dual practice is legal and it is common for healthcare professionals to work in both public and private facilities.³⁰ Over half of hospitals in Indonesia are privately owned and operated and half of outpatient visits are estimated to occur at private facilities.³¹ Utilization rates in the private sector dropped slightly from 10.4% to 8.7% between 2014-2015 as JKN was implemented, but are expected to rebound.³² As coverage under the mechanism grows, and utilization of public facilities increases, the private sector is expected to build out its services to meet the demands of middle and upper class consumers looking for faster, higher quality services.³³

IMMUNIZATION ACCESS AND COVERAGE

All Indonesians are entitled to 'routine' immunization services in both public and private health facilities, in addition to school-based campaigns, free of charge. Immunization services are provided by both public and private health facilities as they are entitled to receive free vaccines from the government.³⁴ For private facilities, this is regardless of

²⁴ BPJS Kesehatan (2017). Note: Using a growth rate of 1.01%, estimated population at end of 2016 as 260,830,154.

²⁵ World Bank (2016).

²⁶ RISKESDAS (2013).

²⁷ World Bank (2016).

²⁸ RISKESDAS (2007); RISKESDAS (2013).

²⁹ World Bank (2016).

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

³³ Oxford Business Group (August 15, 2013).

³⁴ World Bank (2016).

whether they are empaneled with JKN. Private sector facilities may also choose to purchase vaccines – those included in the NIP and others – on their own. Immunization services for school children are also provided via the School-based Immunization Month (BIAS) program, where health center staff deliver adolescent vaccines in local schools through a centrally funded campaign.

Due to lower out of pocket payments and distance to access points, the majority of the population accesses vaccination services at posyandus (community health posts). Around 90% of children were vaccinated in public facilities according to the 2007 coverage survey – 75% in health posts (posyandu), 10% in health centers (puskesmas), and 5% in village birth facilities (polindes) and other places. The remaining 10% of children were vaccinated in private clinics and hospitals.³⁵ The percentage at posyandus is now estimated at 80% by informants according to a recent survey. At public health facilities, both JKN and non-JKN members can receive immunization services for free, while at private facilities eligible for JKN reimbursements, only JKN members receive immunization services for free.

Besides free services and an extensive network of facilities across the country, vaccine availability may be a key reason for public sector preference. A survey in 2011 found that over 80% of puskesmas had government mandated vaccines available, compared with 25% of private facilities.³⁶ The growth of JKN will only increase the number of Indonesians utilizing their general access to healthcare through financial access and increased communications on benefits. Utilization of outpatient services is already increasing among the poorest 40% of the population.³⁷ This will have positive benefits on immunization service access in public facilities over time.

Indonesia includes all WHO recommended traditional vaccines in its immunization schedule, with the exception of rubella.³⁸ The national immunization schedule includes vaccines against hepatitis B (Hep B), polio, diphtheria, pertusis, haemophilus influenzae type b, tetanus (Td), and measles (Table 1). Five immunizations are given to children under one year, under the government’s slogan of “Complete Five Immunization, or L-I-L” (Lima Imunisasi Lengkap).³⁹ The routine immunization program also targets children beyond age one and in schools, serving as a platform to boost immunity to measles, DT, and tetanus toxoid (TT) in children in grades 1-3. Finally, pregnant women are given TT during their prenatal visits.⁴⁰

Table 1. Indonesia National Immunization Schedule

Antigens (Vaccines)	Schedule
1 HepB	0-7 days
2 BCG	1 month
3 OPV	1, 2, 3, 4 months
4 IPV	2, 3, 4 months (in selected regions)

³⁵ RISKESDAS (2007).

³⁶ World Bank (2016).

³⁷ Ibid.

³⁸ Ibid.

³⁹ Directorate General for Disease Control (2015).

⁴⁰ Ibid.

5	DTP-Hib-HepB	2, 3, 4, 18 months
6	Measles	9, 24 months
7	DT	6-7 years
8	Td	7-8, 8-9 years
9	TT	15-39 years
10	Vitamin A	6-59 months

Source: WHO (2017b).

Indonesia is one of 10 countries with the most under-vaccinated children.⁴¹ Though estimates vary widely by source, WHO and UNICEF data show that Indonesia's DTP3 coverage rate (81%) did not change from 2010-2015.⁴² An estimated 59-68% of children are fully immunized, and resulting from its large population and weak vaccination performance, over two-thirds of lower-middle income countries have coverage rates better than Indonesia.⁴³ Performance on the DTP3 indicator highlights the challenges faced by Indonesia's primary health care system in reaching and serving children repeated times during the initial year of life.⁴⁴ On measles, Indonesia was declared off track by the Strategic Advisory Group of Experts on Immunization (SAGE) due to its large number of unvaccinated infants for measles first dose.⁴⁵ Its national coverage rate of 69% for MCV1 lags far behind the 95% coverage target (Table 2).⁴⁶

Table 2. Indonesia's Standings on International Vaccination Targets

Goals of the Decade of Vaccines	Indonesia's Standing
Zero new cases of polio	Achieved
Eliminate Maternal and Neonatal Tetanus	Achieved in 2016*
90% Coverage of DTP3 with no district less than 80% coverage	At 81% coverage, Indonesia is still short of this target
Eliminate Measles	Indonesia still experiences thousands of cases annually
Eliminate Rubella	Rubella cases are still regularly reported though the MR vaccine is set to be introduced this year
Introduce 1+ new or underutilized vaccine (NUVI) since 2010	Indonesia's introduction of IPV in 2016 fulfills this goal

■ Achieved
 ■ Moderate Achievement
 ■ Low Achievement

Source: Strategic Advisory Group of Experts on Immunization (2015).

*UNICEF (May, 19 2016).

⁴¹ Statistics Indonesia, et. al (2013).; Strategic Advisory Group of Experts on Immunization (2015).

⁴² WHO (2017c).

⁴³ Primary Health Care Performance Initiative (2015).

⁴⁴ Ibid.

⁴⁵ Strategic Advisory Group of Experts on Immunization (2015).

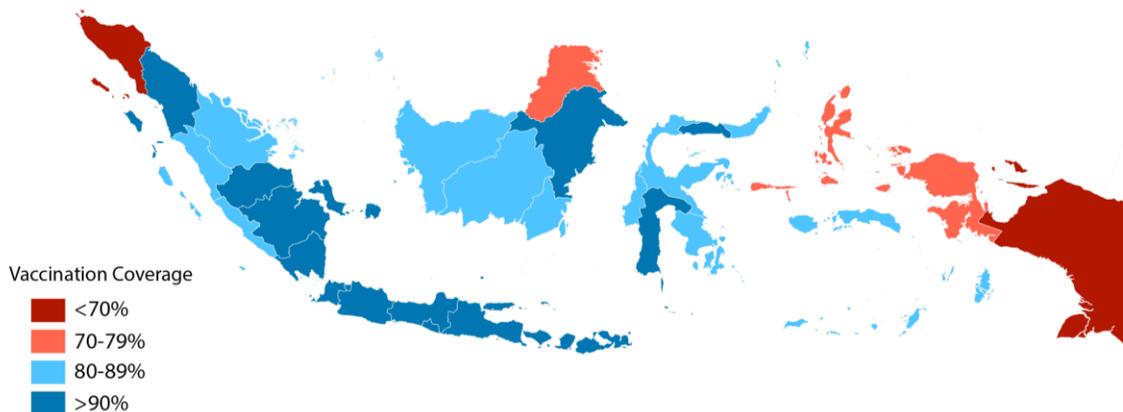
⁴⁶ WHO (2016).; Strategic Advisory Group of Experts on Immunization (2015).

National immunization rates had been steadily increasing, but now appear to be declining.

Informants note that fewer districts have DTP3 coverage rates over 90% than in previous years and more have coverage rates less than 50%. While these figures point to a major problem in the immunization program, questions have been raised on the reliability of the data. Districts are responsible for self-reporting their coverage and the diminishing numbers may be due to limited available data. A housing survey has not been conducted since 2013 and current statistics could include a number of estimates and guesswork.

National immunization coverage rates mask high variability between location, local priorities, and economic status. The urban-rural divide is a key determinant of vaccination.⁴⁷ Although half of the country's population is rural, 63% of all unvaccinated children live in rural areas.⁴⁸ Indonesia's latest coverage survey found stark differences in coverage, with urban rates higher than rural rates by 14% for a number of vaccines.⁴⁹ Geographic challenges and local government capabilities and priorities are a key reason for the subnational variability. District governments are responsible for service delivery, including the operational costs of facilities, health worker incentives, cold chain, and other activities needed to carry out vaccination. In many districts, a lack of commitment, weak planning, and limited budgetary capacity and budget execution capacity, result in low or varied contributions by local government to support NIP activities.⁵⁰ The extreme differences in coverage by province can be seen in the variability of Penta coverage by geographical area in Figure 4, 5. Variability in coverage is also evident by economic status of the population (Figure 5).⁵¹ Even in urban areas where everyone has a near equal chance of initiating contact with the immunization system, the wealthy are more likely to complete their vaccinations. Coverage for each vaccine is highest amongst the wealthiest quintile, with the gap greatest at completion of the vaccine series when compared with the poorest quintile.⁵²

Figure 4. Pentavalent Coverage by Geography, 2015



Source: WHO Regional Office for South-East Asia (2015).

⁴⁷ World Bank (2016).

⁴⁸ Ibid.

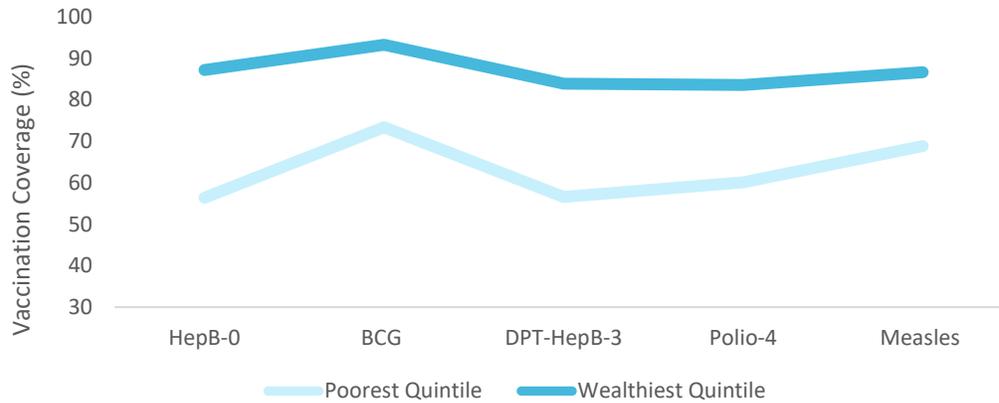
⁴⁹ RISKESDAS (2013).

⁵⁰ Directorate General for Disease Control (2010).

⁵¹ RISKESDAS (2013).

⁵² Statistics Indonesia et.al (2013).

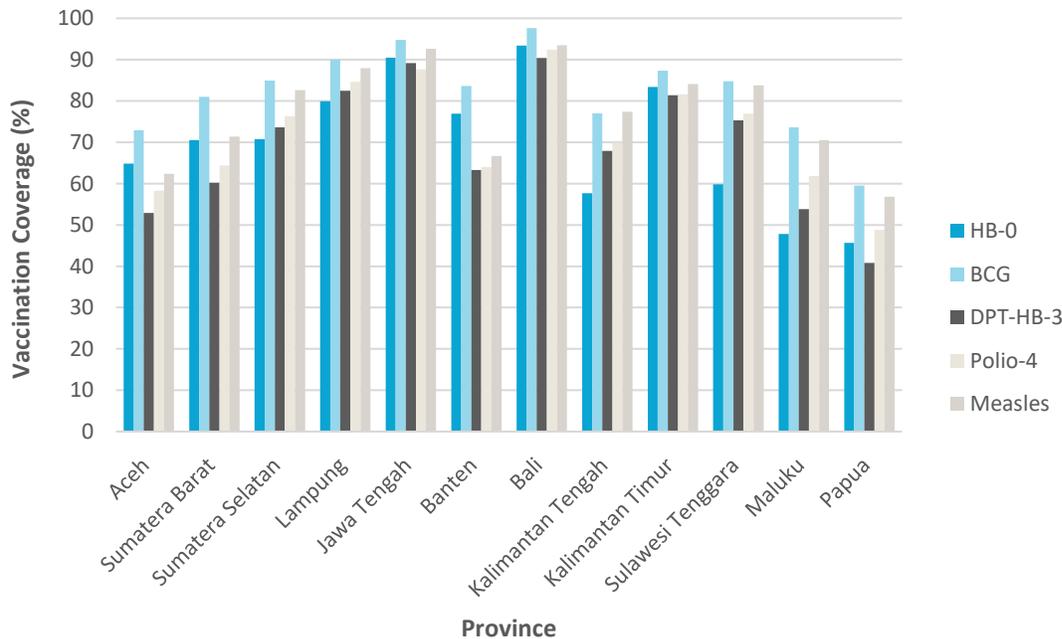
Figure 5. Percentage of Children Immunized by Wealth Quintile and Vaccine Type, 2013



Source: RISKESDAS (2013).

The private sector’s large and expanding role in Indonesian healthcare offers access for those with available finances to access vaccines outside of the National Immunization Program, particularly in urban areas. While public facilities dominate rural and national immunization service, private facilities have a large presence in urban areas and are growing in number throughout the country.⁵³ Half of outpatient visits are estimated to occur at private facilities.⁵⁴ Private practices are folded into the national system and provincial and district governments have oversight responsibilities for local private hospitals and clinics.⁵⁵

Figure 6. Children 12-23 Months Receiving Basic Immunization in 2013, % by Province



Note: HB-0, HepB first dose; HB-3, HepB third dose. Source: RISKESDAS (2013).

⁵³ World Bank (2016).

⁵⁴ Ibid.

⁵⁵ Ibid.

DEMAND FOR IMMUNIZATION SERVICES

Persistent questions around vaccine safety and halal vaccines have affected demand in the Muslim majority country. Though regulations are in place to ensure that safe vaccines are administered, enforcement and monitoring mechanisms are weak, evidenced by recent fake vaccines discovered in over 37 private hospitals and clinics in nine cities.⁵⁶ Though the fake vaccines were forged as imported and did not go through the public system, the government's Food and Drug Monitoring Agency was responsible for oversight. In 2013, 26.3% of Indonesian infants were unvaccinated because their parents refused service.⁵⁷ Indonesians refuse vaccination for their children for several reasons, but one stated line of reasoning relates to religious principles. The use of a gelatin derived from pork products in some vaccines leads many observant Muslims, who abstain from ingesting pork products, to refuse immunization services.⁵⁸

The government has responded to low demand for routine immunization through supplemental campaigns. A campaign to deliver the measles vaccine to children between 9 months and 5 years was carried out in three poor performing provinces in 2009, reaching 2 million children.⁵⁹ Polio immunizations for unvaccinated children up to 5 years old were also administered the same year.⁶⁰ National Immunization Week was introduced in 1995 and mainly serves as a polio campaign, but has only been conducted on an ad-hoc basis.⁶¹ Their efforts have been greatly supported by civil society groups like PKK (community family welfare) whose volunteers help to manage and operate posyandus (local health posts). Financing for immunization programming in Indonesia requires budgeting for supplemental campaigns to combat lower than full demand and utilization rates.

A number of external factors are increasing demand for new and underutilized vaccines. Though Indonesia is graduating out of Gavi funding in the coming year, they are currently eligible for catalytic funding for new vaccine introductions. By applying to introduce new vaccines prior to 2017, Indonesia was able to receive co-financing for introduction. Though the government has an agreement to only purchase vaccines for its national program through state-owned PT BioFarma, the company does not have production capacity for the new and underutilized vaccines on Indonesia's list. By procuring imported vaccines from UNICEF SD, in partnership with Gavi, the country can also ensure lower prices for the newly introduced vaccines for five or more years after being fully self-financed. This can offer substantial savings in the long, run and Indonesia has proposed adding several vaccines for this reason.

NEW AND UNDERUTILIZED VACCINES

Indonesia is updating its schedule to fill immunization gaps and considering several new and underutilized vaccines. Indonesia plans to introduce vaccines against measles-rubella, HPV, and pneumococcal nation-wide by 2025.⁶² Japanese Encephalitis (JE) and rotavirus vaccines are also of interest to the MoH. The 2018 budget has recently been finalized and includes funds to begin the roll-out of Measeles-Rubella (MR), HPV, pneumococcal, and JE vaccines in select provinces. Many of these vaccines have been introduced in co-financed

⁵⁶ Karmini, N. and M. Mason (July 22, 2016).

⁵⁷ RISKESDAS (2013).

⁵⁸ Prathivi, N. (2015).

⁵⁹ UNICEF (October 8, 2009).

⁶⁰ Ibid.

⁶¹ WHO Regional Office of South-East Asia (2017).

⁶² Ministry of Health, Republic of Indonesia (January 3, 2017).

demonstrations/pilots or targeted campaigns in specific geographic areas through varying levels of help from outside donors, with planned introduction in the national schedule to follow (described in Box 2).⁶³ With the largest burden of dengue in Southeast Asia, Indonesia may also consider a new dengue vaccine in the future.⁶⁴

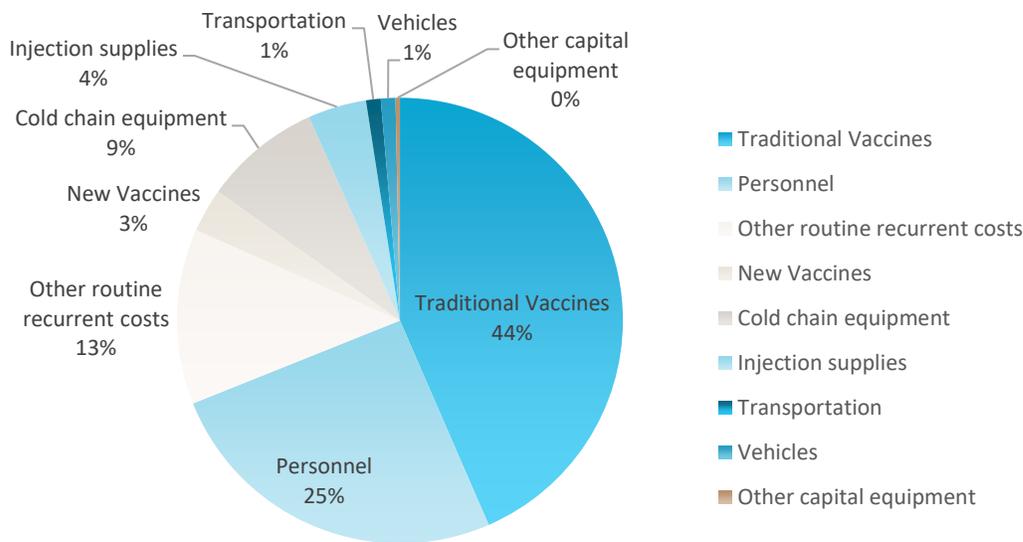
HEALTH FINANCING AND IMMUNIZATION

IMMUNIZATION COSTS

Vaccine cost and personnel represent almost 70% of immunization program expenditures.

Excluding shared costs and campaigns, the lion's share of immunization program expenditures in 2013 were for routine vaccine commodities (41%) and personnel (24%) (Figure 7).⁶⁵ While these costs are to rise at a relatively predictable rate over the years with the stable birth cohort, costs for new vaccine investment will rise rapidly. Additionally, Indonesia predicts that catch-up campaigns to implement these new and underutilized vaccines introductions (NUVIs) will take on a larger portion of the program costs as they are rolled out into 2019 (Figure 8).

Figure 7. Immunization Program Cost Profile (USD), 2013



Source: Directorate General of Disease Control (2015).

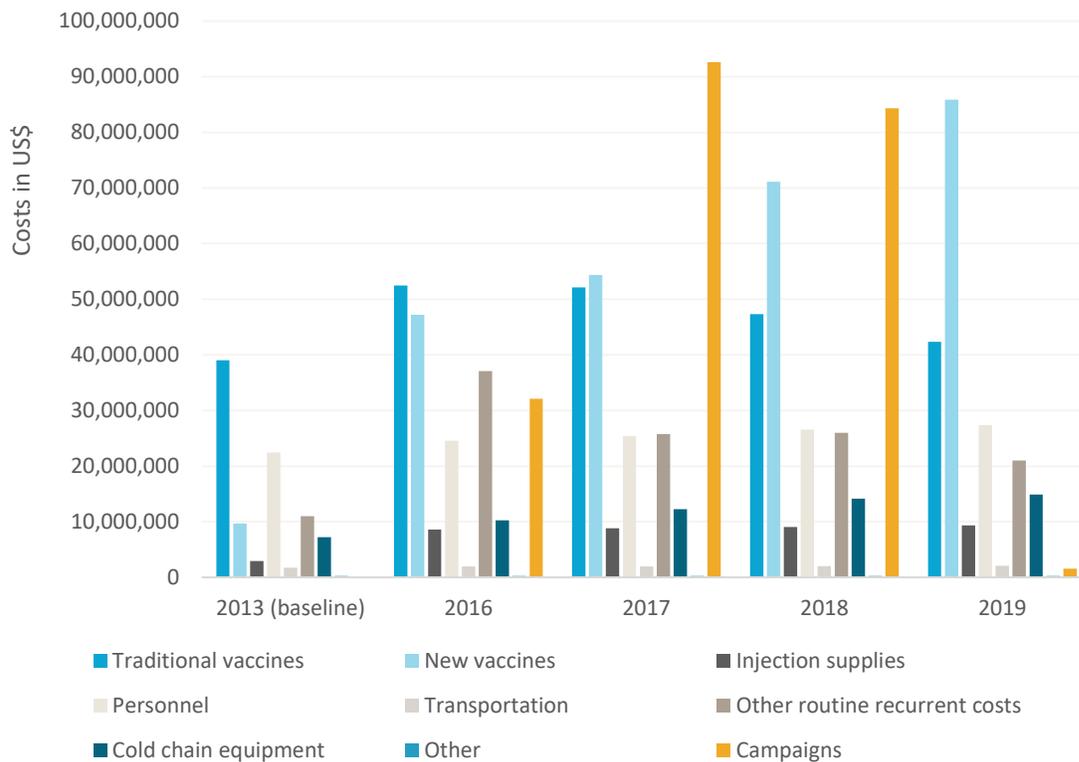
Note: Traditional vaccines are those that have been part of immunization programs for years. The production technology is widespread with a broad market of manufacturers. Thus, they are much cheaper than NUVIs.

⁶³ Gavi (February, 2016).

⁶⁴ Chng et. al (2016).

⁶⁵ Directorate General of Disease Control (2015).

Figure 8. Baseline Financing Profile (shared cost and campaign excluded)



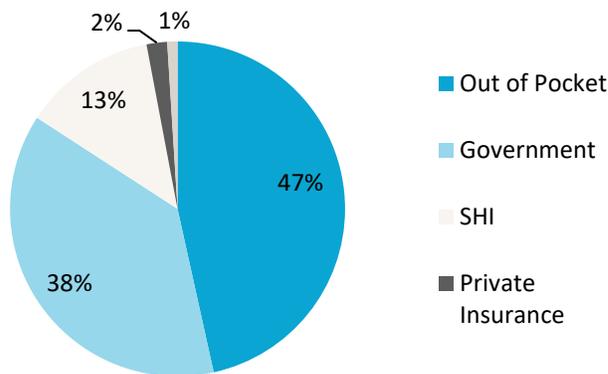
Source: Directorate General of Disease Control (2015).

GENERATION

Revenue for the health system comes from five main sources with out-of-pocket expenditures and government resources providing the majority of funding. Out-of-pocket (OOP) expenses, government budget (tax revenues, loans, and grants), mandatory health insurance (JKN), and donor funds make up the mix of public and private sources that fuel the health sector, with small contributions coming from private insurance. Despite having a national health insurance program, out-of-pocket expenditures make up the biggest single source of health funding, at 47%, while government inputs make up 38% of total health expenditure (THE).⁶⁶ Social health insurance (SHI) inputs 13%, private health insurance adds 2%, and external resources are responsible for 1% of resources for health (Figure 9). In stark contrast, immunization is covered completely by the government, though 15% of the program is financed through external resources.

⁶⁶ World Bank (2016).

Figure 9. Health System Funding Sources, 2014



Source: World Bank (2016); World Bank (2017b).

Limited capacity to collect needed revenue through taxes has restricted what Indonesia can invest into public programs. State revenue is collected through taxes (10% customs and excise and 67% other), non-tax revenues (23%), and grants (<1%).⁶⁷ Indonesia levies taxes on gas and oil revenue, VAT, land and buildings, tobacco, alcohol, and duties, but as of yet, none of these feeds directly into the health sector. A key fiscal space challenge that Indonesia faces is the low number of people who pay taxes. Over the past 15 years, Indonesia garnered 12% of its GDP, on average, in tax revenue.⁶⁸ In a population of 258 million, only about 27 million citizens (10%) are registered taxpayers, and in 2014, less than one million people paid what they owed.⁶⁹ The central government's limited capacity to raise tax revenue will continue to prevent the funding of health at an appropriate level for the population's needs.

Despite economic growth and investment from the government in JKN, OOPs remain the main source of funding for healthcare. The government share of Indonesia's THE was 38% in 2014, with OOP spending at 47% accounting for the bulk of the private share (Figure 7).⁷⁰ OOP expenditures have remained high even after the introduction of JKN. OOP spending is unlikely to decline unless there is significant expansion in JKN's population coverage (both in the breadth of the population covered and the depth of the package), an improvement in supply-side readiness at health facilities, and inclusion of more branded drugs in the JKN benefits package. Use of branded drugs that are not covered by the JKN package is one of the key drivers of OOP spending, even among those with JKN coverage.⁷¹ The goal will be to move some of the OOP revenue over to the SHI source revenue, a sign that both efficiency and equity of the system are improving.

There is an inherent tension between the national policy imperative to drive down OOP spending and the incentives of local governments to raise revenue. As district governments raise 11% of their own budgets – 40% of which is generated from user fees paid for health services – there are perverse incentives at the local level to increase the OOP spending burden on the population.⁷²

⁶⁷ Republic of Indonesia, Directorate of Budget Preparation (2014).

⁶⁸ World Bank (2017b).; International Monetary Fund (April, 2017).

⁶⁹ Shipley, D. (March 28, 2016).

⁷⁰ WHO (2017a).

⁷¹ World Bank (2016).

⁷² Ibid.

The immunization program in Indonesia has received generous support from donors, but the country is now transitioning to fully self-finance its program in 2018. Although less than 1% of THE, external financing has accounted for a significant share (roughly 15%) of the immunization program.⁷³ This share has been declining however, and, in 2014, the government was responsible for 91% of the expenditures for the immunization program (\$140.0 million of \$154.7 million).⁷⁴ Gavi financed most of the remaining 9% (\$14.3 million). The gap left by Gavi will create opportunities to discuss new potential revenue generation strategies. As of yet, Indonesia has not done much experimentation with this prospect. A limited tobacco tax has revenues earmarked to tobacco control, but no earmarks are currently directed towards immunization. Indonesia has rather expressed strong interest in resource tracking and efficiency gains rather than a push for revenue generation.

ALLOCATION OF RESOURCES

The MoH builds the immunization budget to fit within pre-determined ceilings with limited space to negotiate increases for specific health outcomes. The process begins with the preparation of national and regional five-year plans based on current macro-economic framework, fiscal policy, and presidential priorities. The current 5-year plan, in which immunization is one of 14 priority health programs, ends in 2019 and planning for 2020-2015 is starting. The MoH then formulates a draft health work-plan based on proposals submitted from the level below to request funding from the Ministry of Finance (MoF) for specific activities and outputs. After reviewing the various sector workplans, the Ministry of Finance and the Ministry of National Development Planning (Bappenas) issue a budget ceiling for each sector. The MoH has limited room to negotiate the ceiling, though the process is in place to allow this practice. Ministries use the ceiling to build a budget that highlights the results to be achieved which is then finalized by MoF and Bappenas, in consultation with the respective ministries. The budget is submitted to the House of Representatives and, following ratification, is executed by presidential decree. The budget for 2018 was just finalized and includes a 50% increase in the budget for vaccine procurement – fitting with designs of introducing multiple vaccines.

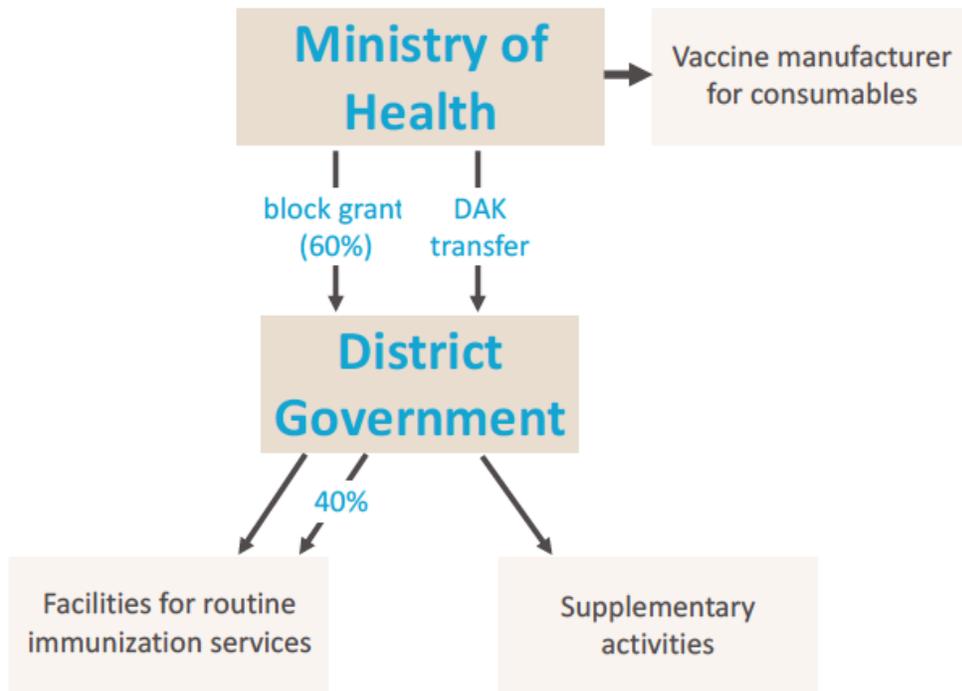
The NIP budget is not determined by tools or forecasting needs, but by the political process of negotiating with Bappenas to fit the needs of the health system into the MoF's assigned ceiling. For immunization budgeting, the MoH integrates program targets and activities into its five-year and annual plans, submitting financing needs for desired outcomes to the MoF. The Indonesian Technical Advisory Group on Immunization (ITAGI), comprised of government representatives, multilateral donors, professional associations, and civil society organizations, feeds into the budgeting process through its recommendations for vaccine introductions. While the establishment of the ITAGI is a good step forward and a trend that is progressing across the globe, their relatively new inception and placement under the MoH means that the ITAGI has little influence on budgetary decisions. The Immunization and Quarantine Directorate (IQD) of the Division of Communicable Disease Control and Environmental Health at the MoH oversees the NIP and performs forecasting and planning for vaccine procurement using the Comprehensive Multi-Year Plan on Immunization (cMYP). This planning informs the MoH's negotiation with Bappenas. The cMYP, though required for Gavi beneficiaries, and a useful forecasting and budgeting tool, has little weight in allocations of funding to the immunization program.

⁷³ Gavi (February 2016).

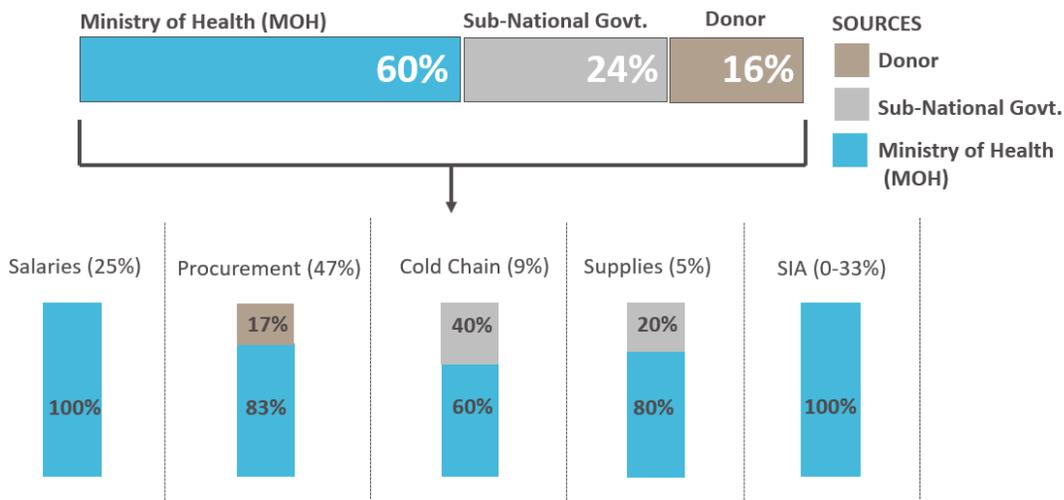
⁷⁴ WHO (2016).

Figure 10. Who Pays for Immunization?

ACTORS.



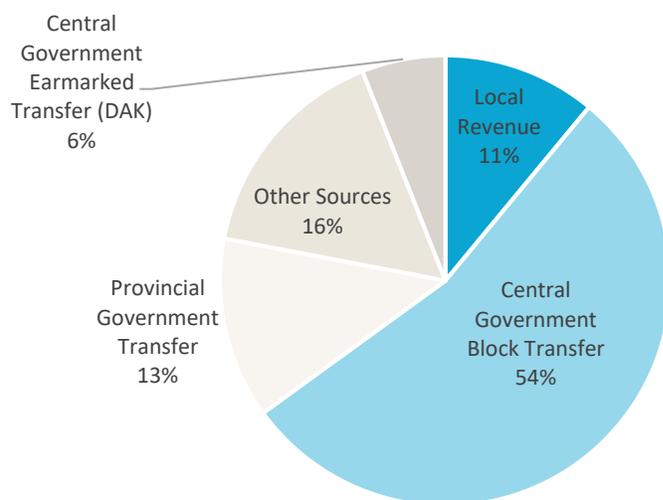
ALLOCATION.



Purchasing for public immunization services is carried out by three main actors: the Ministry of Health, district governments, and JKN (Figure 10). A recent 2017 immunization regulation has altered financing flows, placing more responsibilities on local governments. Previously, the MoH was responsible for the majority of expenditure, covering the costs of procuring vaccines for the NIP, the majority of NIP personnel costs through civil servant salaries, co-financing for new vaccines, and cold chain and logistics costs. It was estimated

that about 60% of routine immunization expenditures are sourced from the central government, and 40% from local governments.⁷⁵ Under the new regulation, the MoH will be aim to solely be responsible for vaccine procurement – local procurement is not allowed.⁷⁶ The MoH can still transfer central funds to districts for specific activities, like supplementary campaigns or cold chain updates, through earmarked DAK (Dana Alokasi Khusus) transfers. JKN funds for immunization services are under a capitation payment for primary care. Payments are based, in part, on the achievement of a set of quality indicators (funds can be withheld if they are not met), but the current indicators are very high level and could potentially be altered to focus on specific program achievements like coverage rates. These funds are transferred to facilities through district governments and can then be used at the facility level – 60% for staff incentives and 40% for other operational needs. Promotion of immunization and other preventative services by the JKN mechanism’s purchaser – BPJS – would not only be beneficial to the population, but could cut down on the cost curative care that they cover.

Figure 11. Local Budget Source Revenue



Source: World Bank (2016).

JKN’s high deficits offer an unclear future for how pooled resources will cover immunization services. After two years of operation, BPJS, was running a US\$1.48 billion deficit.⁷⁷ Estimates released in 2015 predicted an accumulated deficit of US\$12.9 billion by 2019.⁷⁸ BPJS’s financial woes have incited discussion of premium hikes. Thus, there is concern that the government’s strategy of trying to raise additional revenues from premiums could replicate an approach that has met with limited success in many other countries, where efforts to enroll and garner premiums from informal workers have proven problematic.⁷⁹ There is relatively high coverage of low- and high-income groups in JKN – those covered for free as “poor” or “near-poor” and those automatically enrolled as salaried workers in the private sector.⁸⁰ However, the large informal economy makes it hard to target non-poor informal sector workers since they are not salaried employees. Nearly 60% of the

⁷⁵ World Bank (2016).

⁷⁶ Ministry of Health, Republic of Indonesia (2017).

⁷⁷ Effendy, R (November 24, 2016).

⁷⁸ Jong, H.N (July 22, 2015).

⁷⁹ Joint Learning Network for Universal Health Coverage (July, 2015).

⁸⁰ BPJS Kesehatan (2017).

employed population is classified as non-salaried.⁸¹ Few non-poor informal workers have enrolled in JKN, which limits the pool of premium paying beneficiaries and threatens the sustainability of the scheme.⁸²

Local budgets could also be used to inject more financing into health, but most local governments miss their health allocation target and fail to execute their entire budget.

Districts raise 11% of their own budgets and receive 54% from the central government, 13% from the provincial government, and 16% from other sources, including grants and loans (Figure 11).⁸³ Studies have determined that almost half of the districts failed to meet their health allocation target of 10%, with 61% not even reaching 5% allocation.⁸⁴ Districts have been noted to illegally include JKN capitation payments and salary payments towards their mandated 10%. Despite this, many still fall short and in the process, displace funding for immunization. To balance any shortcoming, the central government can use DAK transfers, or earmarked budgets, for certain social programs, including health. In 2015, DAKs for health amounted to about 6% of district budgets.⁸⁵ While central MoH's absorptive capacity is high (96% in 2015), budget execution at the district level is low.⁸⁶ Funds remain unspent at the end of the year due to a variety of reasons, including weak coordination and delays in translating the allocated budget into activities.⁸⁷ Thus, efforts at the central level to improve immunization coverage and coordinate delivery often fall flat at the sub-national level resulting in varying financing levels, demand, and delivery for immunization.

Indonesia's expenditure on health – both total spending and government spending – has risen over the past few years, but remains low compared to the regional and global trends.

Health spending is far below that of other countries at the same income level and of countries in the region. THE in 2014 comprised 2.8% of GDP, with public health expenditure 1.1% of GDP.⁸⁸ Comparatively, lower-middle income countries on average spent 5.9% of GDP on health, with 3.3% of GDP from public expenditure.⁸⁹ Countries in the Southeast Asia region spent 6.6% of GDP on health, with 5.0% of GDP from public expenditure.⁹⁰ Nearly 70% of the central budget is allocated to public services (primarily water and irrigation management) and the economy (inclusive of infrastructure development and land management). While education received almost 12% of the budget in 2015, the health sector received less than 2%.⁹¹ This is far below the 5% of the budget that the central government is mandated to put towards health. It has been noted by Bappenas that this percentage has since risen to meet the mandate. In 2015, 3% of the health budget was spent on the immunization program.

Expenditures on immunization are projected to increase to respond to growing needs in the system and growing demands from the people. Indonesia's estimated resource needs for the immunization program for 2015-2019 were US\$1,374.5 million, with a gap of US\$227.4 million beyond secured funding of US\$1,147.1 million (Figure 13).⁹² As mentioned

⁸¹ World Bank (2017b).

⁸² World Bank (2016).

⁸³ Ibid.

⁸⁴ World Bank (2017a); World Bank (2016).

⁸⁵ Republic of Indonesia, Directorate of Budget Preparation (2014).

⁸⁶ Republic of Indonesia, Directorate of Budget Preparation (2014); World Bank (2016).

⁸⁷ Gavi (February, 2016).

⁸⁸ WHO (2017a); World Bank (2017b).

⁸⁹ World Bank (2017b).

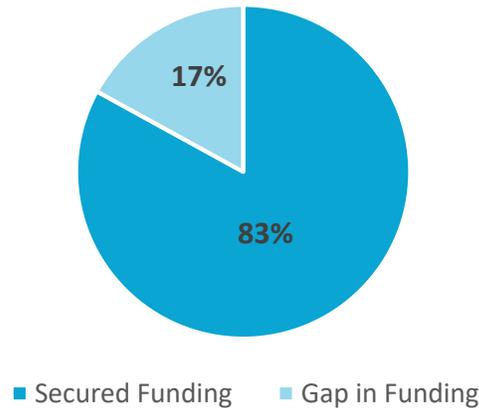
⁹⁰ Ibid.

⁹¹ Republic of Indonesia, Ministry of Finance (May, 2016).

⁹² Directorate General of Disease Control (2015).

above, birth cohorts are expected to shrink through 2030. As such, the financing requirement for the current immunization schedule will decline, but the new vaccines introduced and efforts to increase coverage, will require additional resources. External financing is supporting a number of immunization pilots and introductions – programs that will need to be taken on by the government over time.

Figure 13. Total Funding Needed for 2015-2019 Immunization Program



Source: Directorate General of Disease Control (2015).

Additional resources for immunization are needed to cover the gap left by Gavi, widen the scope, and increase coverage of the program, but many tools are benefitting advocacy for this change. The availability of catalytic funding from Gavi to introduce new vaccines is supporting the idea among Indonesian decision makers. The roll-out of JKN also offers increased access to services that could have tangential benefits for immunization demand. Some concerns do exist, including being overextended on financing commitments when Gavi funds leave, safety issues following the fraudulent vaccine scandal, difficulty reaching rural or remote communities with poor cold chains and shortages of health workers, the high cost of NUVIs, and the limited data and accountability to incentivize progress. These concerns are all very real, but will not stem the tide that continues to move vaccine introduction and immunization expansion forward.

NEW AND UNDERUTILIZED VACCINES SCALE UP IN COUNTRY

The Indonesian Technical Advisory Group on Immunization, the Directorate General for Disease Control and Prevention, and the National Agency of Drug and Food Control are the main decision makers for introducing new vaccines. The ITAGI plays a significant role in this process, both advising the government on new introductions and assisting in producing evidence based decisions.⁹³ WHO position papers, the burden of disease, and pilot programs play a large part in recommendations, but the data used is often from other regional players, not primary local research.⁹⁴ There are individual working groups within the ITAGI that look at new vaccines of interest. The ITAGI makes introduction recommendations to the Directorate General for Disease Control and Prevention in the Center for Disease Control in the MoH who then, given secured financing, makes the recommendation to the National Agency of Drug and Food Control (NADFC), Indonesia’s national regulation authority. NADFC,

⁹³ ITAGI members: recognized experts in the fields of pediatrics, infectious diseases, immunology, medical microbiology, internal medicine, health economics, and epidemiology. (Hadinegoro et. al, 2011.)

⁹⁴ Slamet, L. (2010).

ensures the quality of products before they enter the public system and advises on new technology's introduction into the NIP.

Table 3. Decision-Makers in the Indonesian Immunization Program

Actor	Role
ITAGI	Gathers evidence for NUVI recommendations
ITAGI	Recommends vaccines for introduction
MoH	Decides on vaccine introduction to the NIP
Individual facility management	Decides on vaccine introduction to private facilities
District & Provincial NIP managers, Immunization & Quarantine Directorate in DDC at the MoH	Prepares the immunization budget and designs program
Parliament	Approves the immunization program and introduction budgets
BINFAR	Procures vaccines
Local governments	Funds immunization program management
NADFC	Performs quality assurance
DHOs	Implement immunization programs
Public and private facilities	Delivers immunization services

Procurement and distribution are carried out centrally through an exclusive contract with the national pharmaceutical manufacturer PT Biofarma. Vaccine procurement is done through by the Directorate General of Pharmaceuticals and Medical Devices (BINFAR), after which MoH distributes vaccines to provinces.⁹⁵ National policy requires that state-owned PT Biofarma supply all government-procured vaccines for the NIP, although exceptions to this rule are allowed if PT Biofarma does not have the production capacity for a new vaccine. They can also act as a filler, receiving products from external companies, then packaging and branding the products locally for sale to the MoH. Typically, at the province and district level, there are two designated management personnel, one is responsible for program management, and the other is responsible for cold chain, vaccine, and logistics management.

The financial planning process is done jointly by the MoH, provincial health offices, and district health offices. The MoH, with guidance from the Department of Disease Control (DDC) and the ITAGI, executes immunization program forecasting and planning for procurement through its National Immunization Program (NIP). The budget is built from internal work plans and a centrally developed cMYP. Every district and province, as well as the MoH, have an immunization plan and budget within their larger health plan. The

Box 2. Example of introduction of Td vaccine process:

- 1 CDC reported an outbreak of diphtheria to the ITAGI
 - 2 ITAGI reviewed the data
 - 3 ITAGI asked Biofarma what their production capacity for Td vaccine
 - 4 Biofarma increased Td production capacity and registered with the NRA
 - 5 The NRA approved Biofarma's Td registration
 - 6 The ITAGI updated their recommendations for the use of Td in school children and for outbreak response strategies to the CDC
- Slamet, November 30, 2010.

⁹⁵ Gavi (February, 2016).

immunization plan and budget tend to be historically based with districts submitting the same paperwork annually. This trend is currently shifting as an increasing number of districts update their submissions. In 2012, the 58 of the 514 districts submitted updated district plans.⁹⁶ This number increased to 187 in 2013.⁹⁷

IMMUNIZATION FINANCING IN TRANSITION: KEY TRENDS AND TAKEAWAYS

Indonesia is taking an increased interest in financing NUVIs, but the lack of clarity concerning roles and responsibilities within the system continues to put the success of any new introductions at risk. Indonesia is currently in the process of introducing or piloting five different vaccines. However, coverage rates in Indonesia are dropping. New vaccines are not guaranteed to reach their targets in this landscape. An underlying issue contributing to low coverage rates is the unknown responsibilities shared between the different financing actors. Different stakeholders provide contradicting answers regarding the ability of districts to purchase vaccines, if vaccines are covered under JKN, and what costs are covered by the different budgets. The MoH recently published a regulation to try and provide clarity, but it will be important to continue ironing out how the various levels of government and JKN work together to provide a comprehensive immunization program, both in scope of the package, and in reach of services.

While Indonesia has made resources available for immunization, a lot can be done to ensure that funding is allocated and spent better within the program. Indonesia has increased funding for immunization since 2012 and, by its own estimates, spends 3% of the health budget on the immunization program. Increasing technical and allocative efficiency can help to take that money further. To ensure that districts are supporting immunization programs there needs to be increase accountability between districts and the MoH. Investments in resource tracking and data collection is one way to monitor how funds are spent. Another option is to monitor outputs. The MoH is supporting efforts to financing districts in part based on their performance of the MSS. A performance based financing scheme would impart some accountability mechanisms, incentivizing adherence to the MSS, which includes an indicator on immunization coverage. Indonesia can also increase their allocative efficiency by strengthening the capacity of the ITAGI and its abilities to undertake HTAs. Stakeholders can support this move to increase the likelihood that funding is going to needed health interventions.

JKN is a new actor that is bringing access to healthcare to more Indonesians and should be engaged further on immunization. JKN will continue to roll out through 2019, but currently covers 67% of the population. Though the influence of BPJS is increasing in the health space as JKN's coverage grows, they have minimal engagement with the immunization program. JKN capitation payments to primary care facilities tangentially provide financing for immunization delivery. JKN is already running a high deficit and will need to alter some of its design to be sustainable. Alterations could come in the form of increased premiums, a different provider payment mechanism, or increased voluntary enrollment from the informal sector. The higher cost of curative care than preventative care could also open doorways to more involvement with the immunization program, deterring hospitalization

⁹⁶ Directorate General of Disease Control (2015).

⁹⁷ Ibid.

costs for vaccine-preventable diseases. JKN financing could provide positive incentives to increase coverage across Indonesia. BPJS should be engaged in discussions on increasing immunization financing and coverage in the country.

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