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**Giving More Weight to Health:
Assessing Fiscal Space for Health in
Indonesia**

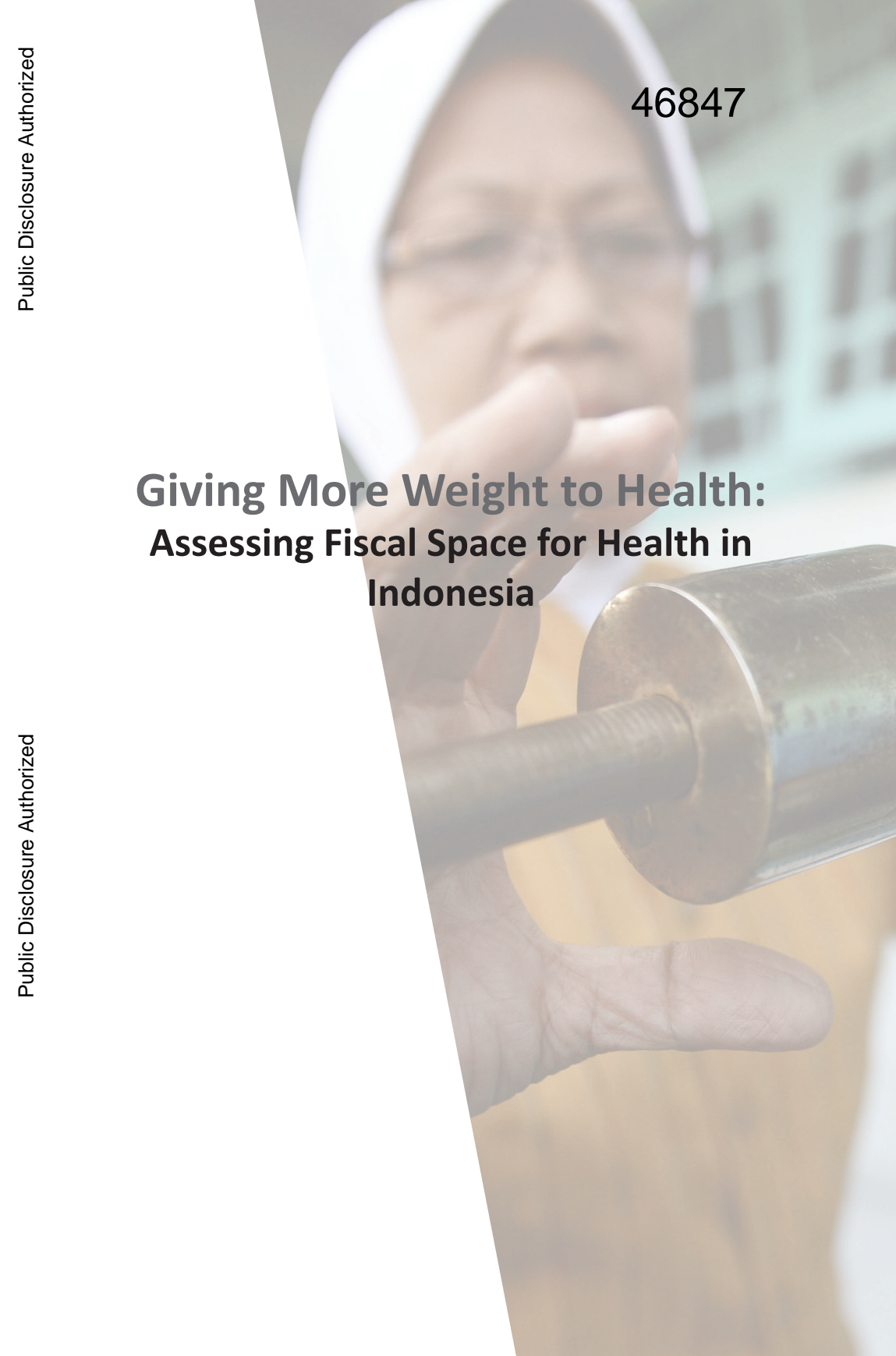


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List of Abbreviations and Acronyms

AAA	Advisory and Analytical Activities
ADB	Asian Development Bank
ASKES	<u>Asuransi Kesehatan</u>
Bappenas	<u>Badan Perencanaan Pembangunan Nasional</u> (National Development Planning Board)
DEPKES	<u>Departemen Kesehatan</u> (Ministry of Health)
DPT3	Diphtheria, Pertussis, Tetanus Immunization Series
EAP	East Asia and the Pacific
EC	European Community
GDP	Gross Domestic Product
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
GoI	Government of Indonesia
HDNHE	Human Development Network, Health and Education
HNP	Health, Nutrition and Population
IMF	International Monetary Fund
IMR	Infant Mortality Rate
Jamkesmas	<u>Jaminan Kesehatan Masyarakat</u> (Community Health Insurance Scheme)
Jamsostek	<u>Jaminan Sosial Tenaga Kerja</u> (Workforce Social Security)
MDG	Millennium Development Goals
MMR	Maternal Mortality Ratio
MoH	Ministry of Health
NHA	National Health Accounts
OECD	Organisation for Economic Co-operation and Development
Susenas	<u>Survei Sosial Ekonomi Nasional</u> (National Socioeconomic Survey)
UNDP	United Nations Development Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
VAT	Value-added Tax
WDI	World Development Indicators
WHO-SEARO	World Health Organization-Southeast Asia Regional Office

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Executive Summary

This report analyzes fiscal space issues related to government health spending in Indonesia. Fiscal space refers to the ability of a government to increase expenditures for a desired purpose. In all likelihood, and for a variety of reasons, Indonesia will need to boost health spending in the near future as it expands access to care through the expansion of *Jamkesmas*, the health insurance scheme for the poor and near poor. In addition, projections based on demographic and epidemiological changes in the country indicate there is likely to be a significant increase in the demand and need for health services and more sophisticated care. Despite a tripling of the public budget for health over the past five years, this increased need, combined with the fact that Indonesia remains a comparatively low spender on health, indicates that there will continue to be upward pressure on resources for the health sector in the near future.

Indonesia has posted mixed results in key population health indicators in recent decades. There have been impressive gains in terms of increasing life expectancy (from 41 years in the 1960s to 68 years in 2006) and in reducing child mortality. Indonesia is also on track to achieve the MDG for child health. However, Indonesia's performance on other health indicators is lagging: for instance, it does not do well on maternal mortality and the incidence of malnutrition among young children remains high. From a regional perspective, Indonesia lags behind its peers in most of its health indicators. In addition, national averages mask large inequities and distribution problems remain significant. All health indicators are worse in the poorer, eastern provinces of Indonesia. Similarly, in terms of health outputs and health system performance indicators, Indonesia is not a high performer. Immunization rates are low for a low middle-income country and skilled birth attendance is far lower than the East Asian average. In the area of financial protection, Indonesia is starting to make progress. Health insurance coverage has increased with the introduction of *Jamkesmas*, catastrophic spending on health problems has decreased, but overall health insurance coverage is still below 40 percent of the total population.

Total health expenditure per capita for Indonesia in 2006 was about US\$34, or approximately 2.2 percent of GDP. Health care provision is dominated by the public sector with about 65 percent of all utilization (both inpatient and outpatient) occurring at public facilities and about 30 percent at private facilities. In the same year, 50.4 percent of total health spending in Indonesia was government and 49.6 percent was private spending. The Indonesian government spent about 5.3 percent of its budget on health in 2006 but total and government health expenditures per capita are low compared to regional neighbors as well as relative to its income level.

Indonesia's economic growth has been strong over the past year. Economic growth tends to be one of the most important determinants of fiscal space. However, at the time of writing this paper, the ongoing global financial crisis makes any prediction about the future course of events difficult. Nevertheless, this paper focuses more on analyzing different mechanisms by which additional fiscal space for health could be realized in the near future in order to respond to increasing demands. The primary purpose of the paper is to gain an understanding of these different mechanisms in order to inform policy dialogues related to this issue, rather than to define with precision the sources and extent of additional funding for health.

A number of different drivers of fiscal space for health in Indonesia are discussed in this paper. These include: (i) conducive macroeconomic conditions; (ii) reprioritization of health within the overall government budget; (iii) increasing health-specific foreign aid and grants; (iv) an increase in other health-specific resources; for example, through earmarked taxation or the introduction of premiums for mandatory health insurance; and (v) an increase in the efficiency of government health outlays. In addition to laying out the possibilities for Indonesia with regard to each of these options, relevant international experiences are also highlighted.

The paper concludes that there are a number of policy options for Indonesia to consider in order to raise resources for health. Health is accorded a relatively low priority in the budget and one option would be to reduce fuel and other subsidies in favor of targeted increases in health spending. Other options include cross-subsidization within a universal health insurance system, earmarking taxes (for example taxes on alcohol and cigarettes, by specific levies on income, or a VAT top-up), health-specific borrowing and grants from international organizations, and improved efficiency in the use of existing resources (for example by designing interfiscal transfers that are geared towards attainment of health outputs and/or outcomes). It is also important to recognize that increasing resources is only one part of the overall picture. Higher resources will not solve Indonesia's health system problems if the additional expenditures do not translate to improvements in health outputs and outcomes.

Section One:

Introduction

This paper discusses the issue of fiscal space for health in Indonesia. More specifically, the objectives of the paper are to define fiscal space for health, elaborate an analytical framework for assessing fiscal space for health, and discuss some implications in the Indonesian context.¹ The paper also highlights several country case examples on the use of different policy options for increasing fiscal space for health.

A discussion of fiscal space specifically for health is important given the likely need for Indonesia to increase resources devoted to the health sector in the near future. Given its current health situation and future demographic and epidemiological projections, Indonesia will, in all likelihood, need to expand health spending—or increase the effectiveness of existing spending—in order to attain further improvements in health outputs and outcomes, reduce health inequalities, as well as increase health insurance coverage. The latter, in particular, is likely to require significant increases in government health spending given Indonesia’s ongoing implementation of the *Jamkesmas* program which entails provision of free health care for 76.4 million poor and near-poor individuals as well as the government’s plans for eventually attaining universal coverage, either via the expansion of the *Jamkesmas* program to the entire population or via other health financing options.

The remainder of the paper is organized as follows. Section Two provides a brief definition of fiscal space and outlines a basic analytical framework for application

¹ The analytical framework in this note closely follows that in Lane (2007).

of fiscal space to the health sector in any country. Section Three provides a brief overview of health system outcomes in Indonesia while Section Four briefly discusses the health financing situation in the country. A discussion of the macroeconomic context underlying government expenditures more generally and government expenditures for health more specifically follows in Section Five. Section Six elaborates on some specific health sector issues when it comes to fiscal space. Section Seven discusses other issues such as the role of health price inflation and its impact in terms of potentially eroding fiscal space for health. Where possible, the note focuses on projections to the years 2012-2015, with an important cautionary caveat that the information content of the estimates presented herein diminishes significantly the further we look into the future. Section Eight concludes with a brief discussion of the policy implications.

Section Two:

Defining Fiscal Space for Health

Fiscal space refers to the ability of a government to increase expenditures for a desired purpose. More specifically, in this paper we use Heller’s (2006) definition of overall fiscal space as the extent to which a government can raise spending in a financially sustainable manner, namely in ways that do not jeopardize a government’s current or future fiscal solvency. In general, fiscal space may be defined with respect to the availability of additional resources for increasing government spending more generally or for a specific sector, with the latter sometimes being a function of the former.² For the purposes of this paper, we focus attention on fiscal space specifically in the context of health for Indonesia, keeping in mind that—at least for the near future—fiscal space for health may be constrained as a fixed proportion of overall fiscal space for Indonesia.

One way of assessing fiscal space for health is to examine the different options by which the sources of government financing for health could be increased. These include:

- **conducive macroeconomic conditions** such as economic growth and increases in overall government revenue that, in turn, lead to increases in government spending for health;
- a **reprioritization** of health within the government budget;

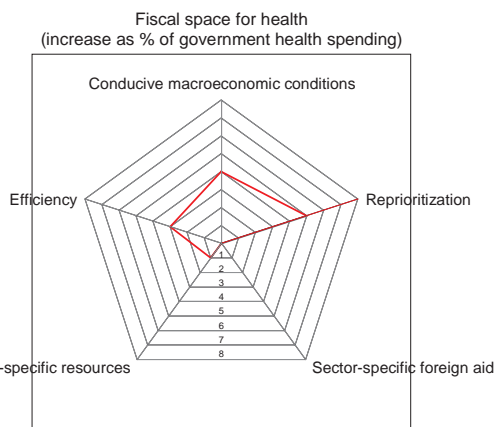
² It is important to note that this need not always be the case. For health, for instance, there has been a rapid increase in recent years in development assistance that is earmarked for the sector, in which case fiscal space for health could increase without an increase in overall fiscal space. This distinction is more relevant for countries that are highly dependent on foreign assistance, for example those in Sub-Saharan Africa, and less so for a country such as Indonesia.

- an increase in **health-specific foreign aid and grants**;
- an increase in **other health-specific resources**, for example through earmarked taxation or the introduction of premiums for mandatory health insurance; and
- an increase in the **efficiency** of government health outlays.

Of the abovementioned options, the first two are largely outside the domain of the health sector *per se* as they involve general macroeconomic policies and conditions as well as cross-sectoral political economy trade-offs. Nevertheless, despite the fact that these areas are largely exogenous to the health sector, it remains important to analyze the implications for government health spending of changes in the generalized macroeconomic and political environment within which the health sector operates. The remaining three options are more in the domain of the health sector and merit particular attention given that they provide the potential for resources that are sector specific.

One useful means of visualizing fiscal space for health is via the use of a “spider plot” (Figure 2-1). As can be seen in the figure, there are five different axes, each representing a different means by which government spending on health could potentially increase. The figure presents the percentage increase in real government health spending relative to that in a given base year via each of the different options. The figure shows a hypothetical scenario for Indonesia whereby a 4 percent increase in real government health spending can be expected from conducive macroeconomic conditions (for example as a result of economic growth). Similarly, a 5 percent increase could come from the reprioritization of government programs and a 1 percent increase from sector-specific sources such as the introduction of earmarked taxes for health. It is not always easy to derive the specific percentages for a given country. Nevertheless, this visualization can be a useful tool to highlight some of the policy options that may or may not be available.

Figure 2-1: Visualizing Fiscal Space for Health: Hypothetical Scenario for Indonesia



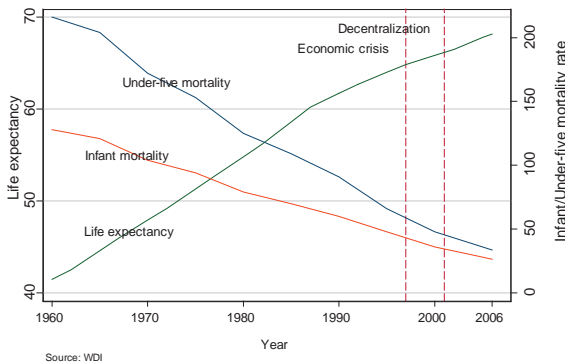
Source: Author

Section Three:

Health System Outcomes, Inputs and Outputs

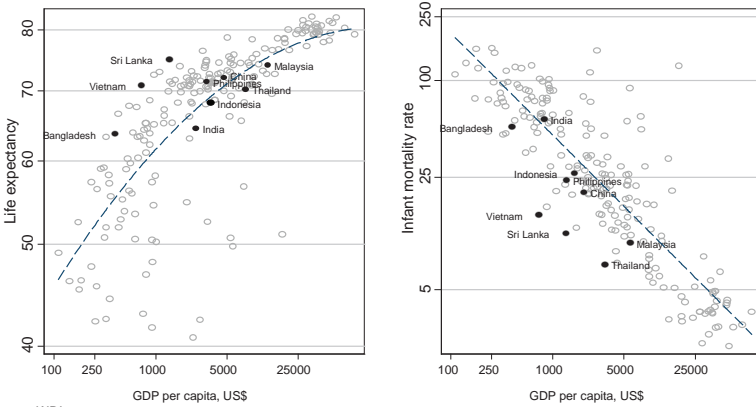
Indonesia has made impressive health gains over the past few decades. Life expectancy at birth has increased from just over 41 years in 1960 to more than 68 years in 2006. The infant mortality rate (IMR) dropped from 128 to 26 per 1,000 live births and the under-five mortality rate has dropped from 216 to 34 per 1,000 live births over the same time period (Figure 3-1). The 1997 economic crisis and the decentralization of government administration in 2001 do not appear to have had a discernible impact on trends in average life expectancy, infant mortality, and under-five mortality in Indonesia. The country is on track to attain the Millennium Development Goal (MDG) for child mortality (UNESCAP et al 2007). Based on global comparisons, Indonesia’s IMR in 2006 was lower than the average for its income level and its life expectancy was about average for its income (Figure 3-2).

Figure 3-1: Trends in Key Health Indicators for Indonesia (1960-2006)



Source: WDI

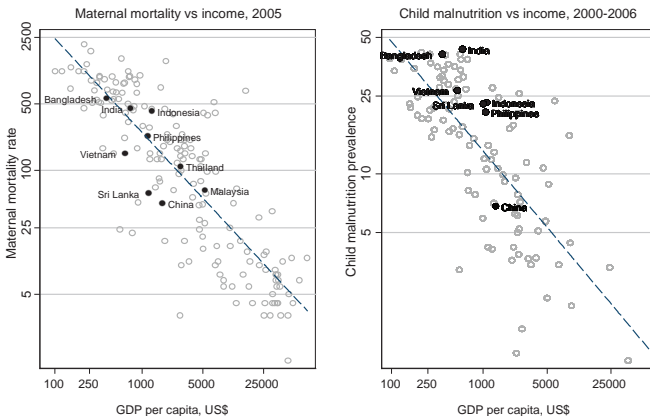
Figure 3-2: Life Expectancy and Infant Mortality vs Income (2006)



Source: WDI
Note: log scale

By way of contrast, Indonesia’s performance with regard to some other key health outcomes such as maternal mortality and child malnutrition has been relatively poor. In contrast to its performance with regard to under-five and infant mortality, Indonesia’s maternal mortality ratio (MMR) is among the highest in the region, and much higher than one would expect for its income level (Figure 3-3). Indonesia’s MMR—often considered to be one of the best indicators of the performance of a health system—was an estimated 420 per 100,000 for 2005, one of the highest in the region. Furthermore, the prevalence of child malnutrition remains high (averaging 23 percent over the period 2000-2006), and is high even in relation to its income level (Figure 3-3)(World Bank 2008). From a regional perspective, Indonesia lags behind its peers in most health attainment indicators. Its life expectancy, under-five mortality, and infant mortality rates are worse in comparison with selected peer countries in the region such as China, Malaysia, Philippines, Thailand, and Vietnam (Table 3-1).

Figure 3-3: Maternal Mortality and Child Malnutrition vs Income (2000-2006)



Source: WDI
Note: log scale

National averages for health indicators mask significant geographic and income-related inequalities within the country. Indonesia is a large, diverse, and geographically-dispersed country. In poorer provinces such as Gorontalo and West Nusa Tenggara, the infant and child mortality rates are four to five times higher than those in richer provinces such as Bali and Yogyakarta (World Bank 2007a). In addition, health indicators for the poor are far worse than those for the rich: child mortality rates among the poorest quintile in 2003 were 3.5 times the rate among the richest quintiles (ADB 2006).

Table 3-1: Population Health Outcomes in Indonesia and Selected Countries for Comparison (2006)

Country/Region	Life Expectancy	Under-five Mortality Rate per 1,000 Births	Infant Mortality Rate per 1,000 Births	Maternal Mortality Rate per 100,000 Population (2005)	Child Malnutrition Rate (2000-2006) (%)
Bangladesh	64	69	52	570	41
China	72	24	20	45	7
India	64	76	57	450	44
Indonesia	68	34	26	420	23
Malaysia	74	12	10	62	--
Philippines	71	32	24	230	21
Sri Lanka	75	13	11	58	23
Thailand	70	8	7	110	--
Vietnam	71	17	15	150	27
East Asia and Pacific (EAP)	67	44	35	286	24
Lower middle-income Countries (LMC)	68	45	34	233	11

Source: WDI.

Note: EAP and LMC numbers are unweighted country averages.

Indonesia's health system outputs and inputs are relatively low. The DPT3 immunization rate in Indonesia in 2006 was only 70 percent. By way of contrast, the EAP average was 83 percent and the average for lower middle-income countries was 87 percent. A similar pattern is observed in skilled birth attendance rates: at 67 percent, this is far lower than the average for the region (81 percent) and for lower middle-income countries (86 percent). In terms of physical health system inputs, Indonesia has a low ratio of doctors and hospital beds per 1,000 population compared with its regional peers (Table 3-2).

Health insurance coverage rates remain fairly low in Indonesia. About 26 percent of the population has some form of health insurance coverage based on estimates derived from *Susenas* 2007 household data. About 14 percent of the population is covered by the government-funded *Jamkesmas* program for

the poor, 6 percent is covered under *ASKES*³, 2.4 percent by *Jamsostek*⁴, and 3.6 percent has other forms of health insurance. The government has recently extended coverage of *Jamkesmas* to over 76.4 million people (about one third of the population). There are plans to gradually extend coverage to the entire population of 230 million people by 2012 although the detailed modalities of this have not been finalized.

Table 3-2: Health System Outputs and Inputs in Indonesia and Selected Countries for Comparison

Country/Region	DPT3 Immunization Rate (2006)(%)	Skilled Birth Attendance (2000- 2006)(%)	Doctors per 1,000 Population (2000-2006)	Hospital Beds per 1,000 Population (2000-2006)
Bangladesh	88	14	0.3	0.3
China	93	97	1.4	2.4
India	55	45	0.6	0.8
Indonesia	70	67	0.1	0.6
Malaysia	96	97	0.7	1.8
Philippines	88	59	0.9	1.1
Sri Lanka	99	96	0.5	3.1
Thailand	98	98	0.4	2.2
Vietnam	94	83	0.5	1.9
East Asia and Pacific (EAP)	83	81	0.7	2.6
Lower Middle-income Countries (LMC)	87	86	1.9	3.8

Source: WDI & WHO.

Note: EAP and LMC numbers are unweighted country averages.

The incidence of catastrophic health spending in Indonesia—although significant—appears to be declining. One set of estimates suggests that 1.3 percent of households in 1999, 2.3 percent in 2000, and 3.6 percent in 2001 experienced catastrophic health spending—defined as household expenditure on health that was greater than 40 percent of nonsubsistence expenditure in a given year (Xu et al 2003).⁵ Recent data updates indicate that the extent of catastrophic spending in 2005 and 2006 has declined to 1.5 percent and 1.2 percent respectively (World Bank 2007a).⁶

³ *ASKES*: Civil service health insurance scheme.

⁴ *JAMSOSTEK*: A state-owned pension fund that provides social security protection to workers in the formal sector.

⁵ It is not clear, though, if the estimates from 1999 are comparable to those from 2000 and 2001.

⁶ Estimates using an alternate methodology—by recalculating \$2.15-a-day poverty rates after subtracting out-of-pocket health expenditure—indicated that 1.7 percent of additional households would be below the poverty line as a result of health spending in Indonesia in 2001. Using this latter methodology, Indonesia's incidence of catastrophic expenditure in 2001 was about the same as that of Sri Lanka and China and far lower than that in Bangladesh and Vietnam. See Van Doorslaer et al (2006).

Section Four:

Health Financing Overview

Total health expenditure per capita for Indonesia in 2005 was US\$34, about 2.2 percent of GDP. In the same year, 50.4 percent of total health spending in Indonesia was government and 49.6 percent was private spending (Table 4-1). WHO estimates that the government spent about 5.3 percent of its budget on health in 2006. Indonesia's total and government health expenditures per capita are low compared to its regional peers as well as relative to its income level (Figure 4-1). With health spending at 2.2 percent of GDP, Indonesia is a low spender relative to GDP even in comparison to its relatively poorer neighbors such as Bangladesh, India, and Vietnam. In terms of sources of funding, out-of-pocket spending accounted for about 32.9 percent of total financing in Indonesia in 2006. External sources accounted for 2.3 percent and the remainder of health expenditure was financed by government sources.

Table 4-1: Health Expenditure Indicators in Indonesia and Selected Countries for Comparison (2006)

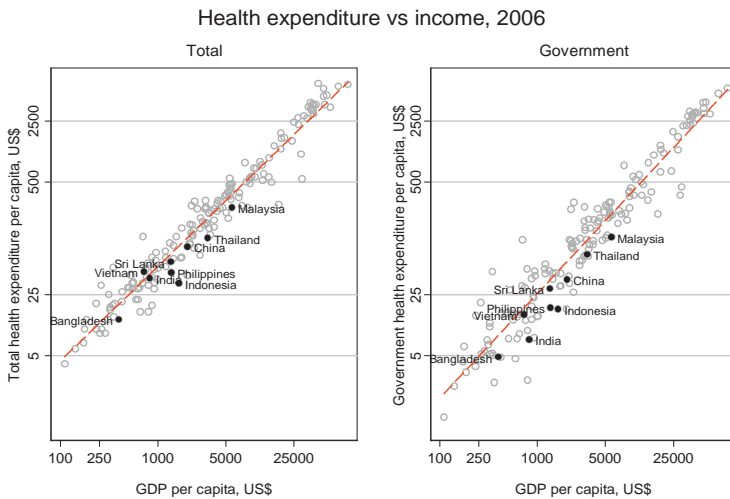
Country/Region	GNI Per Capita (US\$)	Total Health Expenditure Per Capita (US\$)	Total Health Expenditure as Share of GDP (%)	Government Share of Total Health Expenditure (%)	Government Health Spending Share of Government Budget (%)
Bangladesh	450	13	3.1	36.8	7.4
China	2,000	90	4.5	42.0	9.9
India	820	39	4.9	19.6	3.4
Indonesia	1,420	34	2.2	50.4	5.3
Malaysia	5,620	255	4.3	45.2	7.0
Philippines	1,390	45	3.3	39.6	6.4
Sri Lanka	1,310	60	4.2	49.2	8.3
Thailand	3,050	113	3.5	64.4	11.3
Vietnam	700	46	6.6	32.4	6.8
East Asia and Pacific (EAP)	2,149	132	6.3	65.3	10.1
Lower Middle-income Countries (LMC)	2,357	151	6.2	58.7	10.2

Source: WHO NHA database.

Note: EAP and LMC numbers are unweighted averages.

Health care provision is dominated by the public sector in Indonesia. In 2006, about 65 percent of all utilization (both inpatient and outpatient) was at public facilities while about 30 percent was at private facilities and the remainder was accounted for by traditional healers and other categories (World Bank 2008a). Utilization of public outpatient facilities by the poor has increased over the past couple of years (to 60 percent), most likely as a result of the *Jamkesmas* program. The poor are also more reliant on public facilities for inpatient care compared to the rich.⁷

Figure 4-1: Total and Government Health Expenditure Per Capita vs Income (2006)



Source: WDI
Note: log scale

Given its current health situation and future demographic and epidemiological projections, it is likely that Indonesia will need to expand health spending—or increase the effectiveness of existing spending—in order to attain further improvements in health outputs and outcomes, reduce health inequalities, as well as increase health insurance coverage. Extending health insurance coverage, in particular, is likely to require significant increases in government health spending given Indonesia’s ongoing implementation of the *Jamkesmas* program. Estimates indicate that, in 2006, spending on this program amounted to Rp2.9 trillion, or 22 percent of central government health spending (World Bank 2008a). In addition, this amount does not take into account the supply-side subsidization of health care through the payment of health worker salaries and infrastructure on the part of the government. Indonesia’s plans for eventually reaching universal insurance coverage are likely to require even more resources: preliminary analyses suggest that this initiative alone would require additional resources equivalent to 1.6 percent of GDP by 2015 and 2.7 percent of GDP by 2020.⁸

⁷ See World Bank 2008a for more details on utilization patterns.

⁸ See ADB 2007a. These numbers are based on an analysis done by the Asian Development Bank (ADB) that projects the cost of reaching universal health insurance coverage in Indonesia.

Given the need for additional resources, the next two sections outline some of the key drivers and options for fiscal space for health in Indonesia. Section Five begins with a discussion of some of the macroeconomic determinants of fiscal space and the implications for the health sector in Indonesia. Section Six outlines some sector-specific options and country examples for identifying fiscal space from within the health sector.

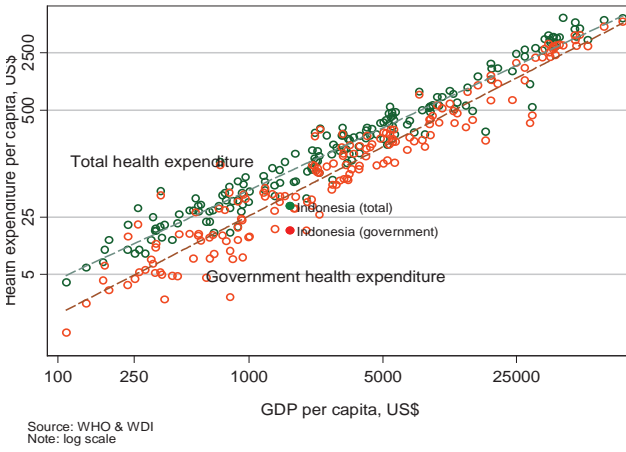
Section Five: Fiscal Space and the Macroeconomics of Government Health Spending

5.1 Economic Growth and Government Health Spending

One of the most important determinants of fiscal space for health is economic growth. For all countries, in general, total health expenditure—and the government’s share of total health expenditure—tends to rise with income. This can be seen from the cross-country data in Figure 5-1 from which the elasticity of both total and government health spending to income can be derived. The elasticity of total health spending is about 1.1 (implying that a 1 percent rise in income raises total health spending by 1.1 percent) while the elasticity of government spending is higher at about 1.2 (implying that a 1 percent rise in income on average leads to a 1.2 percent rise in government health spending)

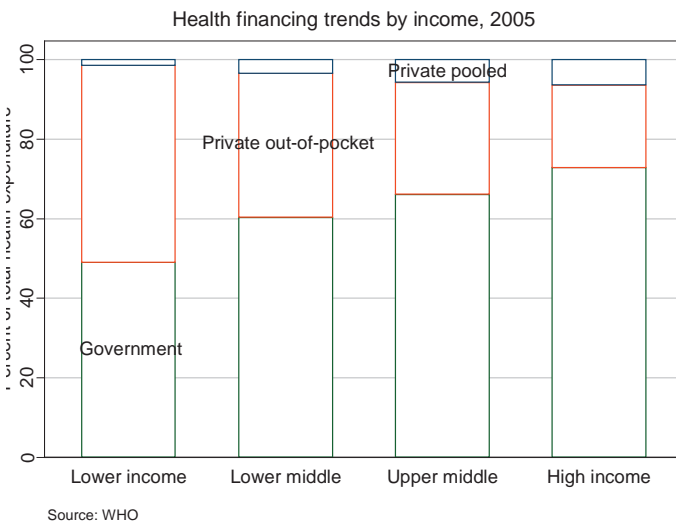


Figure 5-1: Total and Government Health Expenditure vs Income (2006)



There are several reasons why both total health spending and the government share of health spending tend to rise with income. These reasons include, inter alia, the fact that rising incomes are often associated with a greater demand for, and supply of, health care. Richer countries tend to have older populations with more noncommunicable diseases and a greater need for chronic care, the relative price of health care rises with income driving up spending, and the revenue-collection capacities of governments increase with income, as do societal preferences for more public financing for health. Figure 5-2, for instance, shows the rising share of government financing and a declining share of private out-of-pocket spending for health with income.

Figure 5-2: Health Financing Trends by Income (2005)



There are many examples of countries where economic growth has resulted in improved fiscal space for health. India is a recent example of a country that is planning to significantly boost government health spending, this being facilitated at least in part by its extremely robust economic growth rates over the past few decades (see Box 5-1).

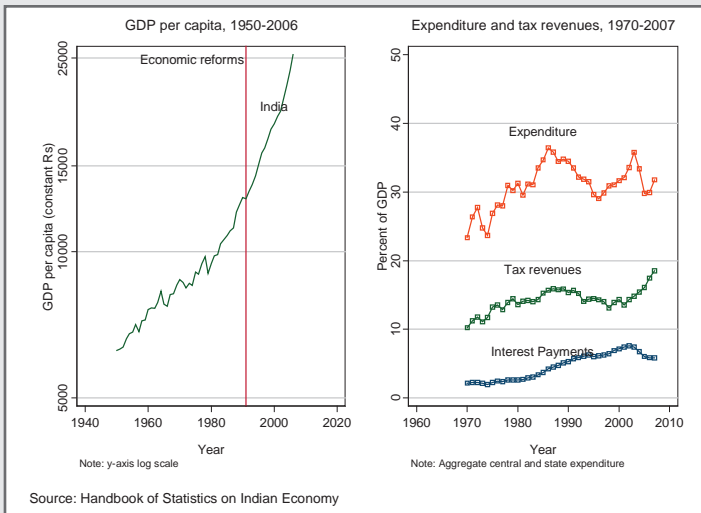
Although it is too early to precisely assess how the current global financial crisis will impact on Indonesia's future growth prospects, precrisis indications suggested that the country's macroeconomic fundamentals were relatively robust and the financial sector resilient. Nevertheless, the likelihood of a negative impact of the recent global financial crisis on the Indonesian macroeconomy and on growth projections cannot be discounted, especially if export demand, foreign investment, and capital inflows are adversely affected. The World Bank projects that Indonesia's growth rate is expected to decline to 4.4 percent in 2009 before rebounding to 6 percent in 2010 (World Bank 2008b). During the course of 2008 the Indonesian stock exchange fell by 56 percent while the Indonesian rupiah has also lost over 25 percent of its value as a result of the crisis.

Since the outbreak of the crisis, the IMF has also revised down its growth and inflation forecasts for the country. A precrisis IMF report projected economic growth to remain in the 6-7 percent range per annum over the period 2008-2013 (IMF 2008a). Post crisis projections indicate a decline in growth to 5.5 percent in 2009 followed by a slow rebound to over 6 percent in subsequent years (Figure 5-3). The outlook for inflation appeared to be a bit more problematic: inflation was expected to increase from 6.6 percent in 2007 to 12 percent by the end of 2008, primarily as a result of increases in food and fuel prices.

Box 5-1: Fiscal Space from Economic Growth in India

India has ambitious plans to increase its government health spending from less than 1 percent of GDP to 2-3 percent of GDP during its eleventh Five-Year Plan (2007-2012). Most of the additional funding for health is expected to be channeled through the National Rural Health Mission (NRHM) which was initiated in 2005 for the entire country, with a particular focus on 18 poorly-performing states. There is preliminary evidence that total government health expenditure in India over the period 2004/05 to 2006/07 has already risen in real and nominal terms: from 0.97 percent of GDP to 1.05 percent of GDP.

India's plans for increasing government spending on health are occurring at a time when the country's performance on economic growth has been very impressive. India's GDP has grown on average by 6 percent over the past 25 years, with growth being in excess of 8 percent per year over the past 5 years or so. The country's tax and other revenues, after a period of decline as a share of GDP in the 1990s, have been growing steadily post-2000 and are projected to continue to grow in the short to medium term (see figure). The government's expenditure levels have also kept pace with the rise in revenues although part of the rise in government spending has been due to a rise in interest payment.



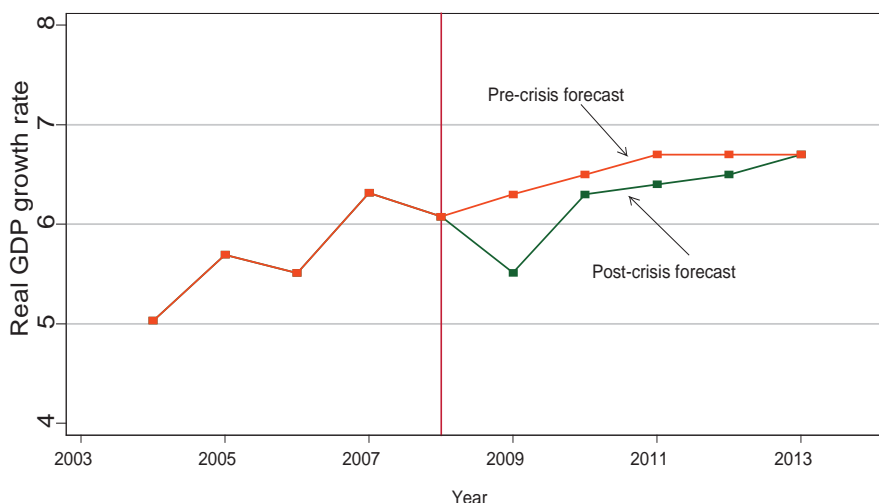
Economic growth is only part of the story behind the proposed plans to increase government health spending in India. In large part, the prioritization accorded to health in the country is a result of the 2005 elections which saw an unexpected rise to power of a coalition of parties, including the communists, that considered the election outcome to be a mandate for increasing social spending programs for the poor.

There are concerns, however, that, even in a most optimistic scenario with a projected annual real growth rate in GDP of 7 percent, it will be difficult for the government to realize its health spending goal. Under India's decentralized governmental structure, the bulk of health spending is made by the states, not all of whom are realistically expected to increase health spending by the amount needed to increase overall government health spending to 2-3 percent of GDP by 2012. In addition, the IMF believes that in order to take advantage of the fiscal space from economic growth for investments in the health sector, the government will need to reduce subsidies on food and fuel as well as accelerate debt reduction.

Source: Government of India 2006; Berman et al 2008; and IMF 2008b.

Despite a recent reduction in the global price of oil, government expenditure on fuel subsidies in Indonesia remains high, with the IMF estimating the cost at 3 percent of GDP in 2007 with a projection of 5 percent of GDP for 2008. The decline in fuel subsidies created some fiscal space in 2008, part of which was being used to reduce government debt and fund cash compensation programs for the poor. Overall, at least based on precrisis projections, Indonesia's fiscal position appeared to be strong with central government revenues projected to be in the range of 17-20 percent of GDP to 2013. The fiscal deficit was estimated at 1.9 percent of GDP in 2008 and projected to remain in this range to 2013. Central government debt levels are expected to decline from 31.2 percent of GDP in 2008 to 25.2 percent of GDP by 2013.

Figure 5-3: Revised Economic Growth Forecast for Indonesia (2008-2013)



Source: IMF

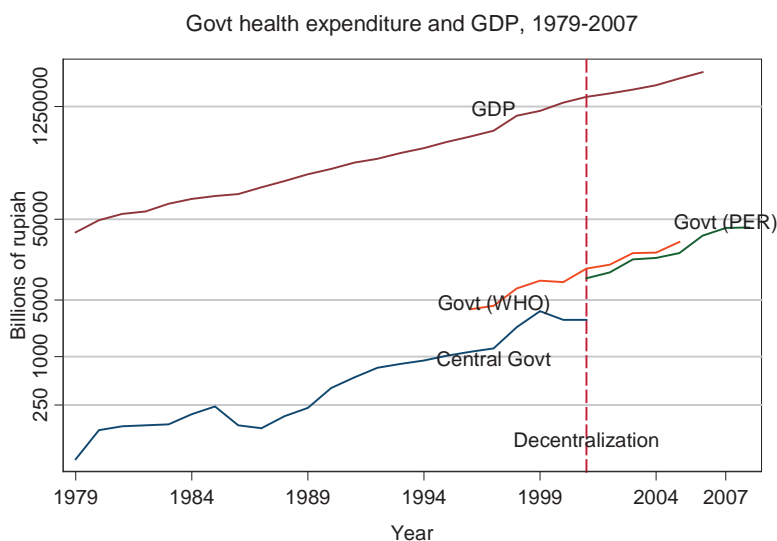
Table 5-1: Selected Macroeconomic Indicators for Indonesia: Actual (2004-2007) and Projected (2008-2013)(%)

Year	Real GDP Growth (%)	CPI (Inflation) (%)
2004	5.0	6.4
2005	5.7	17.1
2006	5.5	6.6
2007	6.3	5.6
2008	6.1	12.0
2009	5.5	7.5
2010	6.3	6.5
2011	6.4	5.5
2012	6.5	5.0
2013	6.7	4.5

Source: IMF 2008a.

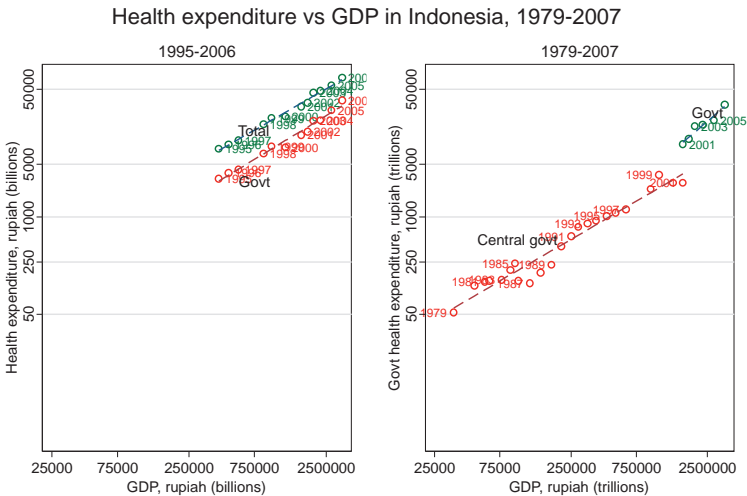
Although consistent long-term time series data are not readily available for Indonesia, long-term trends in government health spending have been following trends in GDP growth. Figure 5-4 shows trends of central government health spending from a WHO-SEARO study as well as total government health spending from WHO and from the World Bank over time. Although not readily apparent from the graph, there has been a tendency for government health spending to increase as a share of GDP in Indonesia over time across all three series.

Figure 5-4: Long-term Trends in Government Health Spending in Indonesia (1979-2007)



Based on an analysis of trend data from 1995-2006, the estimated elasticity of government spending to GDP in Indonesia is of the order of 1.11. By way of contrast, over the same time period, the elasticity of total health expenditures was about 1.05.⁹ Although part of the responsiveness of nominal health expenditures to nominal GDP may also be a result of differential price changes in health versus the average for the economy, analysis of the health component of the consumer price index (CPI) for Indonesia for 1996-2005 suggests that both the health price index and the general price index grew at the same average annual rate of about 15 percent over this time period (World Bank 2008b). A similar magnitude of responsiveness was found for central government spending versus GDP over the period 1979-2001. More recent data from the World Bank suggest that the elasticity of government spending has been even higher, in the order of 1.5 (Figure 5-5).

Figure 5-5: Health Expenditure vs GDP in Indonesia (1979-2007)

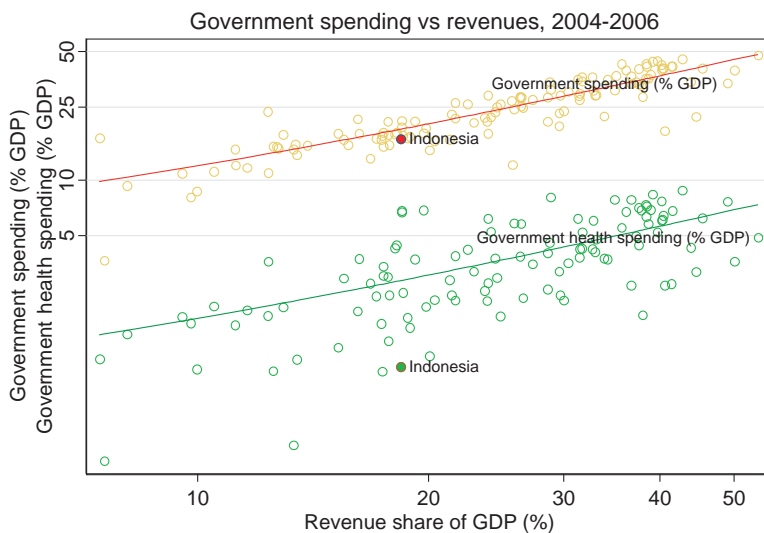


Source: WHO & WDI
Note: log scale

Government health spending could potentially rise from 0.99 percent of GDP in 2007 to 1.07 percent of GDP in 2013, if the elasticity of government health spending to GDP in Indonesia remains at the rate it has been over 1995-2006 (that is 1.11), and if the economy were to grow at the rates recently projected by the IMF. Table 5-2 reports the projected trends for government health spending—in levels and as a percentage of GDP—using the IMF growth and nominal GDP forecasts for Indonesia to 2013. As can be seen in the table, based on economic growth-related projections of government health spending, Indonesia will more

⁹ The corresponding elasticities with respect to nominal GDP using a global sample for 2006 were: 1.09 for total health spending and 1.21 for government health spending.

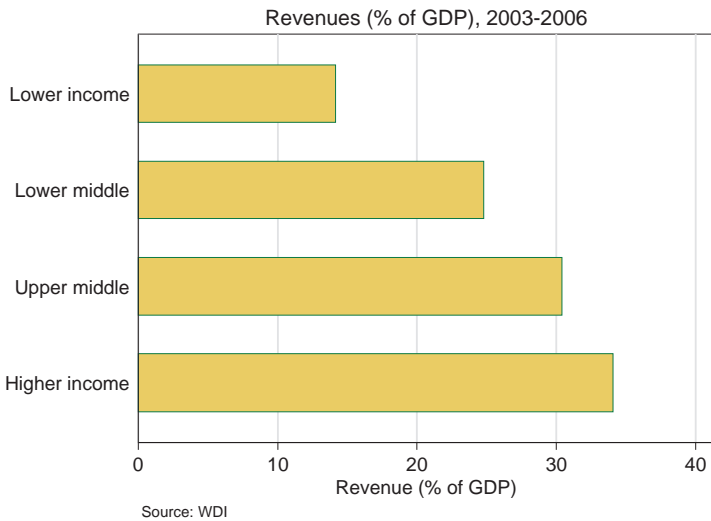
Figure 5-6: Government Total and Health Expenditure vs Revenues (2004-2006)



Indonesia's revenues as a percentage of GDP are lower than the average for its status as a lower middle-income country. In general, revenues as a percentage of GDP rise with income (Figure 5-7). Indonesia collects revenues that are about 19 percent of its GDP, lower than the average 23 percent of GDP for its income group.¹⁰ There is some potential for raising revenue levels and a recent World Bank *Public Expenditure Review* (2007b) for Indonesia predicts that nonoil domestic tax revenues as a percentage of GDP would rise by about 0.4 percent per year in the near term. To what extent this increase in revenue would lead to an increase in government spending is not clear: both the IMF and World Bank predict a fairly flat trend for government spending as a share of GDP in the short term, in part because oil and gas revenue shares are projected to decline, so offsetting any improvements in other revenue collection efforts. A recent country report for Indonesia (IMF 2007) has suggested that an additional revenue yield of 1 percent of GDP annually could be realized if VAT exemptions were limited, property taxes were increased, and fringe benefits taxes were introduced. If these revenue gains were realized, and assuming the health share of the budget remained at 5 percent, this could potentially lead to additional fiscal space for health of 0.05 percent of GDP per year for the next few years.

¹⁰ The World Bank's Country Performance and Institutional Assessment (CPIA) score for efficiency of revenue mobilization for Indonesia was 4 in 2005 on a 6-point scale with 1=lowest and 6=highest. In a recent assessment of revenue potential, Indonesia was categorized as falling short of its revenue potential See Gupta (2007).

Figure 5-7: Average Revenues as Percentage of GDP (2003-2006)



Local revenue-generation capacity is low in Indonesia. Local revenues make up only about 8.5 percent of total government revenues in Indonesia. Electricity taxes, taxes on hotels and restaurants, health service user charges, building permit fees, motor vehicle taxes, and public market fees are some of the prominent sources of local revenues at the district and provincial levels. Improvements in local revenue generation are a potential source of additional fiscal space but the magnitude of the impact may be limited given the expected continuing dominance of central revenue generation and the weakness and inefficiency of local tax administrations (World Bank 2007b).

Section Six:

Fiscal Space from a Health-Sector Specific Perspective

The previous section examined fiscal space from a macroeconomic perspective. Economic growth, revenue generation, and other macroeconomic factors have a strong bearing on overall fiscal space and, by derivation, on fiscal space for health. However, these drivers of fiscal space are largely exogenous to the health sector. This section examines some alternative policy options for identifying fiscal space from a more health sector-specific perspective.

6.1 Fiscal Space from Earmarked Taxation and Health-Specific Borrowing/Grants

The health sector is somewhat different in the sense that there are a number of possible ways in which fiscal space could be generated by earmarked taxation or health-specific borrowing/grants. For instance, one source of fiscal space that is specific to health would be borrowing and grants from international organizations such as The Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the GAVI Alliance (formerly The Global Alliance for Vaccines and Immunization). In addition, taxation of alcohol and cigarette consumption could be earmarked so that the revenues go directly to the health budget. Even if this does not prove to be a major source of revenue—which is unlikely given Indonesia’s high rates of cigarette consumption—it may help reduce morbidity and mortality related to these risk factors.

There do, however, appear to be political obstacles to taxing tobacco. Indonesia is the only Asian country not to have signed WHO’s Framework Convention for Tobacco Control. One cited reason is that excise taxes on tobacco production account for almost 10 percent of government revenues, and estimates indicate

that the sector employs almost 7 million people (The Economist 2007). Taxes on cigarettes in Indonesia are amongst the lowest in the region: amounting to only about 31 percent of the price of cigarettes. Studies have suggested that a 10 percent rise in the price of cigarettes could lower consumption by 3.5-6.1 percent and increase government revenues from cigarette taxation by 6.7-9 percent (Achadi et al 2005). However, this has to be offset by concerns that cigarette and alcohol taxation is often regressive and may result in evasion and the development of underground markets.

Thailand is an example of a country that has successfully implemented an earmarked tax that directly funds health promotion activities. In 2001, Thailand instituted the Thai Health Promotion Foundation (ThaiHealth), funding for which comes directly from a 2 percent earmarked tax on tobacco and alcohol consumption that provides an estimated annual revenue stream of US\$50 million (WHO/SEARO 2006). Thailand has also steadily increased cigarette taxation over the years—from 55 percent in 1993 to 75 percent in 2001—leading to declining consumption rates but increased government revenue from tobacco taxes.

Other examples of earmarked taxation to create fiscal space for health come from Ghana and Zimbabwe. In Ghana, an additional 2.5 percent VAT (see Box 6-1) was implemented to help pay for its national health insurance program. Similarly, Zimbabwe introduced an additional 3 percent levy on personal income and corporate taxes to help fund AIDS-related interventions. Although earmarked taxes can help add to fiscal space, they may also displace existing funding and thereby end up having no significant net impact on overall resources for health. They can also contribute to reducing the flexibility for spending budgets and these factors need to be taken into account when considering the implementation of any earmarked taxes (McIntyre 2007).



Box 6-1: Financing the National Health Insurance Scheme in Ghana with a 2.5% VAT Levy

In 2003, Ghana passed its National Health Insurance Act with a goal of eventually providing universal coverage for all Ghanaians. The plan is to cover 30-40 percent of the population by 2010 and 50-60 percent by 2015-2020. The insurance system includes several district mutual health schemes, private mutual schemes, and commercial schemes providing a basic benefits package defined by the government.

Ghana has a National Health Insurance Fund, the purpose of which is to subsidize the cost of care for the poor as well as to finance health service delivery improvements. The Fund is financed by a 2.5 percent levy on all goods and services (both those produced in Ghana as well as imports), a 2.5 percent wage-related premium on those in the formal sector, as well as general tax-funded budgetary transfers. The 2.5 percent levy on goods and services and wages provides 77 percent of the financing for the fund.

Unlike the use of earmarked taxes on consumption of products such as cigarettes and alcohol, Ghana's VAT levy is rather unusual, at least among low-income countries, in its use of a broad-based earmarked VAT on the consumption of goods and services as a means for creating fiscal space for health care coverage. Concerns remain, however, regarding the financial sustainability of the insurance program—which will also depend, in part, on the enrollment of premium-paying informal sector workers—as well as the progressivity of the tax in raising revenues for health.

Source: Sulzbach et al 2005; McIntyre 2007; Ramachandra and Hsiao 2007.

As mentioned above, another way to generate fiscal space for health—especially in low-income countries—is for governments to seek additional health-specific foreign aid and grants from international donors such as the GFATM and GAVI Alliance and the like. Official development assistance (ODA) disbursements for health in Indonesia for 2006 amounted to US\$70.6 million from bilateral sources and US\$34.4 million from multilateral sources. Australia and Germany were the largest bilateral donors and the European Community (EC) and GFATM were the largest among the multilaterals (Table 6-1).

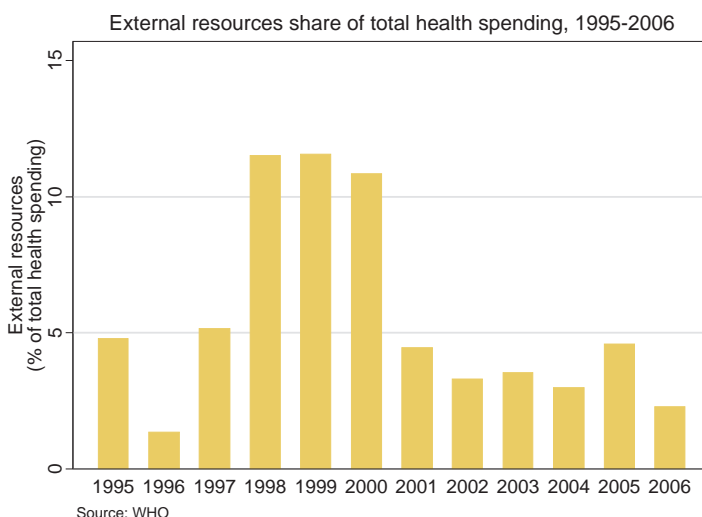
Table 6-1: ODA for Health in Indonesia (Disbursements)(2006)

Source	Amount (US\$ millions)
<i>Bilateral Total</i>	70.6
Australia	28.6
Germany	22.3
UK	2.8
<i>Multilateral Total</i>	34.4
GFATM	19.2
EC	12.5
UNICEF	2.7

Source: OECD CRS.

WHO estimates that about 2.3 percent of total health expenditure in Indonesia in 2006 was financed by external sources, and this proportion—following an increase in the postcrisis period 1997-2000—has generally been declining over time (Figure 6-1). The current proportion for Indonesia is somewhat lower than the average for lower middle-income countries (7.7 percent) and for the EAP region as a whole (17.5 percent), although the latter average, in particular, is biased upwards because of the inclusion of small Pacific countries.

Figure 6-1: External Resources as Share of Health Spending in Indonesia (1995-2006)



Given recent declining trends and Indonesia’s lower middle-income status, it does not appear as though foreign aid is a viable option for generating fiscal space for health in Indonesia particularly since, unlike the previous Indonesian crisis, the current crisis has originated in the United States and is having an impact on most of the donor countries. There are expectations that foreign aid budgets will face some tightening in the coming year or two at the very least.

6.2 Fiscal Space from Mandatory Health Insurance

One potential mechanism for generating fiscal space is via introduction of mandatory universal health insurance. This is a potential strategy by which high out-of-pocket payments may be “captured” by the public sector in the process of introducing health insurance for all via the collection of mandatory premiums. The basic economics behind any insurance mechanism is the idea that individuals would prefer payment of a predictable (and relatively small) dedicated tax or premium in order to avoid unpredictable (and potentially large) payments when a health or other shock materializes. There is some evidence that individuals may be more willing to pay earmarked taxes or premiums as long as there are clear benefits attached to the payment of such a tax or premium (Buchanan 1963). Colombia is an example of a country that was able to generate increases in public sector health spending and a reduction in out-of-pocket expenditure when it introduced mandatory health insurance in 1993 (see Box 6-2).



Box 6-2: Fiscal Space from Introducing Mandatory Health Insurance in Colombia

In 1993, Colombia introduced health sector reforms aimed at achieving universal health insurance. The reforms introduced two regimes for insurance: (i) a mandatory contributory regime covering formal workers and their families as well as those who were self-employed and able to pay the premiums, and (ii) a subsidized regime covering the poor and indigenous populations.

One key aspect of Colombia's health sector reform that is important from a fiscal space perspective is that it has a solidarity subfund whereby 1 percent of all the contributions from the contributory regime are transferred to the subsidized regime. The solidarity contributions accounted for 34.4 percent of the subsidized regime's resources in 2003. The remainder came from national government transfers (56.3 percent), local "sin" tax revenues (8.8 percent), and from other family benefit funds (0.5 percent).

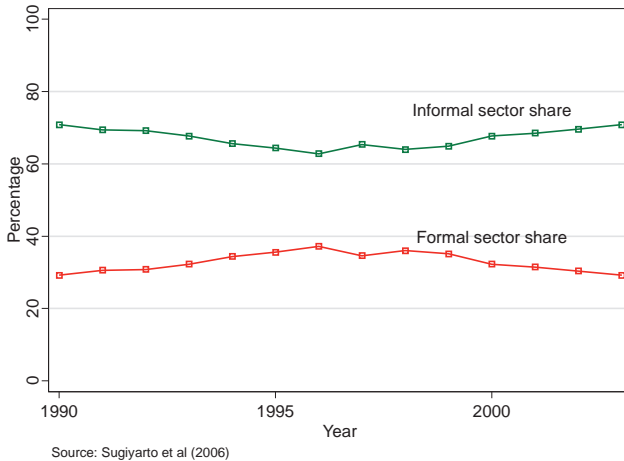
The reform has been redistributive from richer to poorer households and insurance coverage increased from 23 percent of the population in 1993 to 62 percent of the population in 2003. Catastrophic spending has declined, as have out-of-pocket payments more generally: from 2.7 percent of GDP in 1993 to 0.6 percent of GDP in 2003. Over the same period, total health spending rose from 6.2 percent of GDP to 7.8 percent of GDP. Government spending on health—including social security contributions—more than doubled from 3.0 percent of GDP to 6.6 percent of GDP. Hence, in Colombia out-of-pocket spending was in a sense "captured" by the government in the process of introducing mandatory universal coverage.

Source: Masis 2008; Baron-Leguizamon 2007 and Escobar 2005.

The success of such a mechanism to create fiscal space is dependent on the size and ability to enroll the premium-paying segment of the population. Indonesia's *Jamkesmas* program—which provides insurance without payment of a premium for the poor and near poor—covers 76.4 million individuals with plans to extend this to all citizens. Indonesia's success in generating fiscal space from mandatory insurance would be dependent on the extent to which the remainder of the population can be encouraged to enroll in any national health insurance program so that some of the additional resources collected can be used to subsidize the nonpremium paying population. One of the big issues in Indonesia has to do with the extent of the informal sector: employing more than two thirds of the workforce, it remains a large and essentially stagnant sector despite rapid economic growth (Figure 6-2)(Sugiyarto et al 2006). With such a large share

of employment in the informal sector, ensuring enrollment with some form of prepayment so as to generate fiscal space in any mandatory health insurance schemes is likely to be extremely challenging.

Figure 6-2: Formal and Informal Sector Shares of Total Employment in Indonesia (1990-2003)



6.3 Fiscal Space from Increasing Health’s Share of the Government Budget

As mentioned earlier, the Indonesian government currently (2006) allocates about 5.3 percent of its budget—about 0.98 percent of its GDP—on health. This is slightly higher than the average expenditure for the 2000-2006 period (4.6 percent) but is still much lower than the average for EAP and lower middle-income countries which spent about double that amount as a share of the government budget during the same period (Table 6-2). Cross-sectoral budgetary allocations are determined by the National Development Planning Board (Bappenas) in consultation with the Ministry of Health (MoH). The MoH has recently argued (Gol 2007) for health spending to increase to 5 percent of GDP, citing this as a WHO recommendation.¹¹ Indonesia’s government health sector does appear to be underfunded and accorded a relatively low priority. Unlike the case of countries such as India and China, Indonesia’s low allocation for health does not appear to be related to higher allocations to military spending (Table 6-2) but is likely to be related to the high amounts spent on fuel and energy subsidies which amounted to 18 percent of total expenditures in 2001-2006. Education also takes up a high proportion of spending, averaging almost 15 percent of the budget over the period 2000-2005.

¹¹ It is important to note that WHO has never officially endorsed the figure of 5 percent of GDP as a spending target for health. See Savedoff (2007).

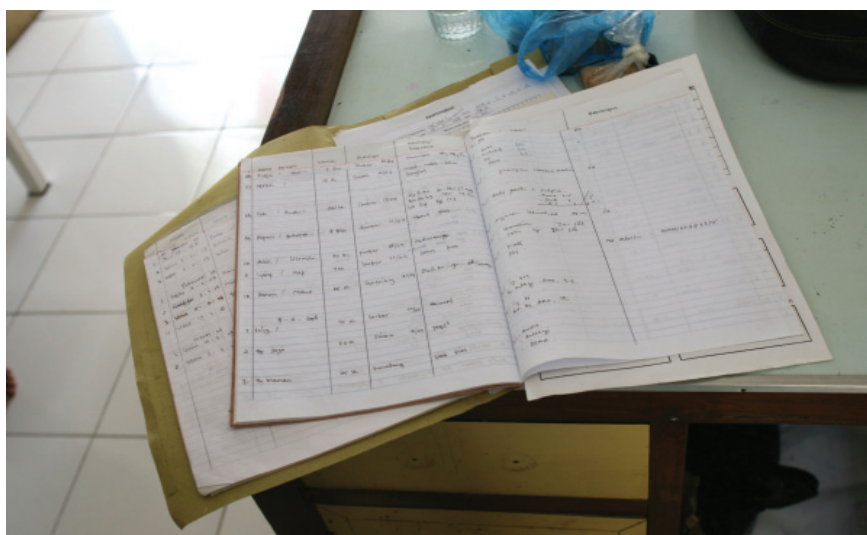
Table 6-2: Government Budgetary Allocations in Indonesia and Selected Countries for Comparison (2000-2006)

Country/Region	Government Share of Budget (%)		
	Health	Military	Education
Bangladesh	6.2	13.9	15.2
China	9.8	19.0	--
India	3.3	18.0	11.7
Indonesia	4.6	7.8	9.4
Malaysia	7.2	11.4	24.0
Philippines	5.7	5.2	15.9
Sri Lanka	7.4	14.1	--
Thailand	11.0	7.3	27.8
Vietnam	5.9	--	--
East Asia and Pacific (EAP)	9.9	11.2	17.1
Lower Middle-income Countries (LMC)	10.1	9.3	16.7

Source: WHO NHA Database.

Note: EAP and LMC averages are unweighted.

There is wide variation at the district level in health spending as a share of the district budget. Some *kabupaten/kota* such as Kota Gorontalo in Gorontalo Province spent more than 20 percent of their budget on health in 2005. Other *kabupaten/kota* spend less than 1 percent of total public expenditure on health. In principle, such variations in health expenditure are to be expected as decentralization ought to allow for a better matching of local expenditure with local needs. However, it is not clear whether this has indeed been the case in Indonesia as there appears to be a positive association between district health spending and income. Public health expenditures are higher in districts with larger budgets and higher per capita incomes (World Bank 2008a).



Analytical research on cross-country determinants of sectoral expenditure shares tends to emphasize the importance of broader institutional and sociopolitical factors. Higher levels of corruption have been found to be negatively related to government spending on health, for instance. One hypothesized connection is that the size of kickbacks that are related to projects in the health sector tend to be low. Delavallade (2006) found that—in a sample of 64 countries, including Indonesia, over the time period 1996-2001—higher levels of corruption were indeed strongly related to lower levels of budgetary allocations to health, education, and social protection and higher budgetary allocations towards spending on defense, fuel and energy, and public service order. Mauro (1998) made a similar finding but also found that corruption impacted more negatively on education spending than health. Table 6-3 compares the Corruption Perception Index of Indonesia to other EAP countries.¹² In 2005, Indonesia had a score of 2.2 which suggests that it was viewed as being quite corrupt and ranked last among a selected group of East Asian countries. Other factors that have been found to be correlated with higher levels of government spending on health include greater democratization and lower levels of ethno-linguistic fractionalization (ADB 2006).

Table 6-3: Corruption Perception Index (2005)

Country	Corruption Perception Index
China	3.2
Indonesia	2.2
Malaysia	5.1
Philippines	2.5
Thailand	3.8
Vietnam	2.6

Source: http://www.transparency.org/policy_research/surveys_indices/cpi

Recent international agreements have called for governments to spend a greater share of their national budgets on health. However, such political commitments have tended to not be very effective in raising health's share of the government budget. For example, the Abuja Declaration of 2001 signed by 53 African heads of state pledged to increase health's share of the government budget in signatory countries to 15 percent. In 2005, few countries in Sub-Saharan Africa—Rwanda, Burkina Faso, Malawi, Liberia, and Somalia being notable exceptions—came close to spending 15 percent of their budget on health (Center for Global Development 2007). Table 6-4 reports selected low-income, lower middle-income, and upper middle-income countries that spent more than 15 percent of their budget on health in 2005. Several Latin American countries are prominent in this group, reflecting their health financing arrangements based on formal sector social insurance combined with subsidized or free care for the poor, not unlike the model that Indonesia is planning to implement.

¹² Transparency International developed the Corruption Perception Index to measure the degree of corruption in a country as perceived by business people and country analysts. Countries are assigned a score between 0 and 10, with 0 being seen as most corrupt and 10 judged as least corrupt.

Table 6-4: Selected Countries Spending Greater than 15% of Budget on Health (2005)

Classification	Country
Low-income	Burkina Faso; Haiti; Liberia; Malawi; Rwanda; Somalia
Lower middle-income	Brazil; Colombia; Guatemala; Honduras; Paraguay; El Salvador
Upper middle-income	Costa Rica; Croatia

Source: WHO NHA Database.

Mexico is a recent example of a country that has begun to implement plans to achieve universal health insurance coverage and has increased government allocations to health in the process. Mexico’s health reforms—which commenced in 2004—were designed to extend coverage to about 50 million additional individuals, largely representing the poorer segments of the population who were not covered by any of the existing schemes. Mexico plans to have universal coverage by 2010, with an additional 14.3 percent of uninsured families being covered each year between 2004 and 2010 (see Box 6-3 for additional details).

Box 6-3: Mexico's Health Reform

It is envisioned that by 2010 everyone in Mexico will be covered by one of three insurance schemes: the *Instituto Mexicano del Seguro Social* (IMSS) scheme covering salaried employees in the private sector, the *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado* (ISSSTE) for salaried workers in the public sector, and the *Seguro Popular* scheme for nonsalaried workers, self-employed, and families outside the labor force. Each of these schemes has, or is expected to have, a fixed tax-financed federal contribution per family (social quota). This was set at 15 percent of the mandatory minimum wage and currently amounts to US\$259 per year per affiliated family. In addition, there are financing components on the part of the beneficiary as well as the cocontributor (private employers for IMSS, public employers for ISSSTE, and a solidarity contribution split between the state and federal governments for *Seguro Popular*). The solidarity contribution was set at 1.5 times the social quota with some adjustments upwards for poorer states. The state contribution—funded out of state revenues—was set at half the federal social quota.

For the *Seguro Popular*, family contributions are based on a family's capacity to pay, with an upper limit of 5 percent of disposable income. Families in the bottom two deciles are exempt from contributions. The benefits package includes a set of essential primary and secondary care interventions provided at the state level and a package of higher-cost tertiary care interventions, the latter being pooled at the national level and provided for at the regional and national levels.

A key aspect of the reform is that enrollment in *Seguro Popular* is voluntary. However, states have a strong incentive to enroll families given that federal allocations to state budgets are designed to be a function of number of enrollees in that state. In addition, states have an incentive for maintaining quality of care or risk losing enrollees. Those families that choose not to enroll are eligible to seek care at public providers but would have to pay for services at the point of delivery. Financing estimates for attaining universal coverage by 2010 suggest that government health spending would need to increase by 1 percent of GDP: up from about 2.8 percent of GDP in 2003.

Mexico is an example of a country where health reforms have triggered an increase in the government's allocation to the health sector. In real terms, the Ministry of Health's budget has increased by 69 percent over the period 2001-2006, in part due to the mobilization of resources for implementation of the health reform. Some funding also comes from earmarked taxes on cigarette sales.

Source: Gakidou et al 2006; Knaul et al 2006; Frenk 2006; Knaul and Frenk 2005.

6.4 Fiscal Space and Efficiency of Government Spending on Health

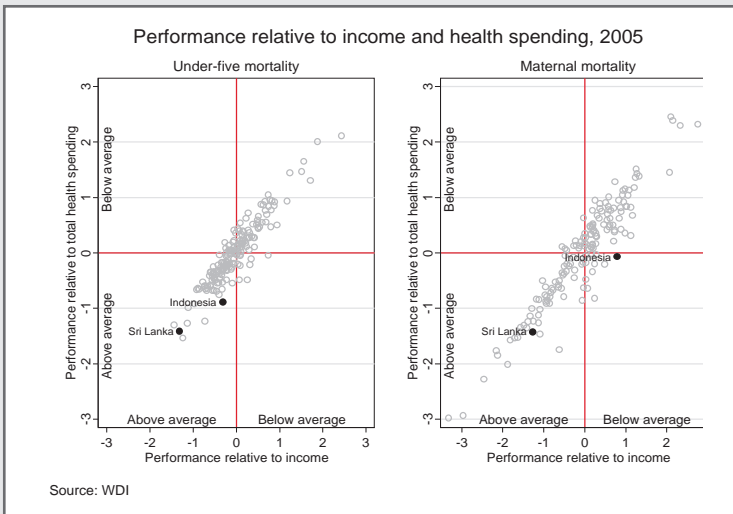
In addition to increasing budgeted amounts for health, effective fiscal space may be generated by increasing the efficiency of spending. Improvements in the efficiency of health systems can be an important source of fiscal space. Originally conceptualized in terms of the economics of firms and farms, efficiency is typically defined as maximizing output(s) from input(s). Although its application to defining the efficiency of a health system is not perfect, one component of efficiency is *allocative*: achieving the optimal mix of inputs given relative prices. A second component is *technical*: given input levels, maximizing the level of output that can be attained. Allocative and technical efficiency combined together are often referred to as *economic* efficiency (Jacobs et al 2006). Sri Lanka is often presented as an example of a country that has been able to attain excellent health outcomes with relatively low levels of resources, in part because of the underlying efficiency of its health system (see Box 6-4).



Box 6-4: Health System Efficiency in Sri Lanka

Sri Lanka is one of the best-performing countries in its health outcomes relative to resources. The figure shows the attainment of child mortality and maternal mortality outcomes relative to income and total health expenditure in Sri Lanka and other countries in 2005. As can be seen from this figure, Sri Lanka is one of the most positive outliers. Indonesia is above average for child mortality but not for maternal mortality.

Sri Lanka's Child and Maternal Mortality Relative to Income and Total Health Spending (2005)



Although health outcomes are also a function of nonhealth system related factors such as education, in Sri Lanka's case there is some evidence that part of its good performance in health may be due to the fact that its health system has been relatively efficient. Its expansion of health coverage post-1960 has occurred during a period when government health spending as a share of GDP has actually been declining.

In the case of some traditional efficiency indicators, Sri Lanka has relatively low cost per GDP per capita ratios for inpatient and outpatient care, has high productivity of human resources in the health sector, as well as high bed turnover rates and a low average length of stay in hospitals. The health-care delivery modality in the country is oriented towards the use of hospitals for providing both inpatient and outpatient primary care and there is some evidence that this has been more cost-effective than the use of stand-alone primary care facilities, possibly due to economies of scale.

Source: Rannan-Eliya and Sikurajapathy 2008.

Health system efficiency can be defined at a more micro level (for example at the level of health facilities) or at a more macro level (for example at the level of a subnational or national health system). Macro-level measurement of efficiency tends to be problematic. WHO (2000) attempted to estimate the performance of national level health systems by relating a composite index of health levels, health inequality, responsiveness, responsiveness inequality, and fairness in financial contribution against total health expenditure, with a control for the level of education in a country. Indicator estimation problems aside, such macro-level measures of health system efficiency can be misleading given that they assume that health expenditure is a causal factor underlying health system outcomes. Health outcomes are clearly a function of many other factors—education, water and sanitation, housing, and income, to name a few—making the attribution of causality to health expenditures alone difficult.¹³

Effective coverage rates for given levels of health resources can be an indicator for estimating macro-level health system efficiency problems. Effective coverage—defined as the proportion of the population that has a given health care need that receives quality care—is a more direct output measure of a health system (Shengelia et al 2005). Health care needs may be defined based on population characteristics (for example the need for immunization among children) or by the presence of a disease or health problem for which an effective intervention is available. Relating effective coverage to health resources can be a crude estimate of possible efficiency problems in a health system. DPT3 immunization coverage, for instance, is often considered to be a good indicator of the coverage of a health system. Table 6-5 lists several countries in 2005 that spent less on health care than Indonesia but attained higher DPT3 coverage rates. Clearly, Table 6-5 does not show that Nepal’s health system is more efficient than Indonesia’s: one would need to look at a more composite measure of effective coverage or only look at resources devoted to DPT3 immunization in each of the countries to reach such a conclusion. It does suggest, however, that there might be some efficiency-related problems in Indonesia that merit further study given its poor performance on a key public health measure such as DPT3 immunization in light of the net health resources at its disposal.

¹³ See ADB (2007) for a critical overview of methods for measuring macro-level health system efficiency.

Table 6-5: Selected Countries with Health Spending Less than Indonesia and Having Higher DPT3 Coverage Rates (2005)

Country	Total Health Expenditure Per Capita	DPT3 Immunization Coverage
Indonesia	\$26	70%
Uganda	\$22	84%
Rwanda	\$19	95%
Tajikistan	\$18	85%
Tanzania	\$17	90%
Nepal	\$16	75%
Pakistan	\$15	80%
Bangladesh	\$12	88%

Source: WHO NHA Database & WDI.

Micro-level estimates of efficiency tend to be based on unit costs. This can also be an incomplete characterization of efficiency given that such measures tend not to control for quality of health care and differences in input costs due to cost-of-living differences (for example differences in rural-urban costs that are unrelated to the health system *per se*). Ideally, a mix of macro- and micro-level indicators should be examined to assess the potential for improvement due to efficiency-related problems in any health system. Estimation of facility costs is ongoing as part of the broader health financing AAA for Indonesia and will be reported at a later stage.

Following decentralization in 2001, up to half of all public health expenditure in Indonesia has been spent at the district level. In 2006 the central government contributed about 39 percent of all public expenditures on health with the provinces funding the remainder (see Table 6-6)(World Bank 2008a). However, district health spending remains, for the most part, nondiscretionary or routine. In addition, there remains some confusion as to the roles of the different levels of government with regard to accountability and responsibilities. The clarification of these issues could potentially help improve efficiency of the health system in Indonesia. In addition, there is a startling variation in health outputs across districts in Indonesia, suggesting that there may be lessons to be learnt from better-performing districts (Figure 6-3).

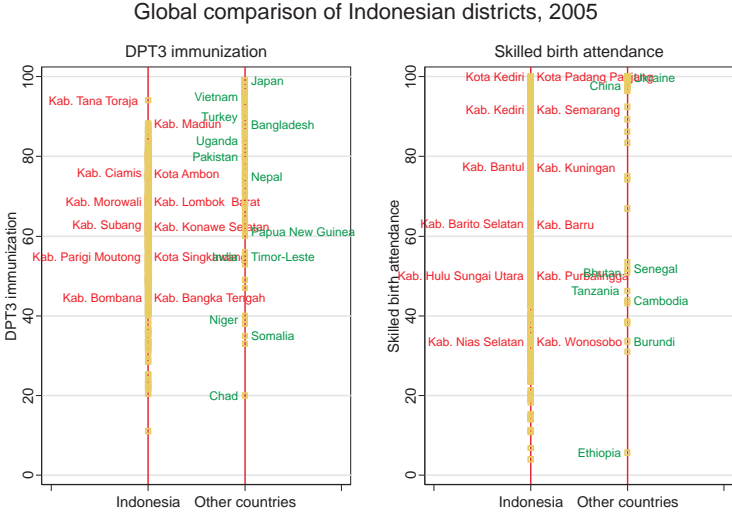
Table 6-6: Public Health Expenditures by Level of Government (2002-2008)

	2002		2003		2004		2005		2006*		2007**		2008***	
	Rp (bn)	%	Rp (bn)	%	Rp (bn)	%	Rp (bn)	%	Rp (bn)	%	Rp (bn)	%	Rp (bn)	%
Central	2,907	26	5,752	36	5,595	33	5,837	31	12,190	39	17,467	45	16,768	42
Province	2,372	22	2,821	18	3,000	18	3,316	17	5,100	16	5,600	14	5,924	15
District	5,725	52	7,473	46	8,108	49	9,948	52	13,900	45	15,900	41	16,972	43
Total	11,004	100	16,046	100	16,703	100	19,101	100	31,190	100	38,967	100	39,664	100

Source: World Bank, SIKD database, based on data from MoF.

Note: * = allocation, ** = estimated, *** = estimated.

Figure 6-3: Global Comparison of Indonesian Districts on DPT3 Immunization and Skilled Birth Attendance (2005)

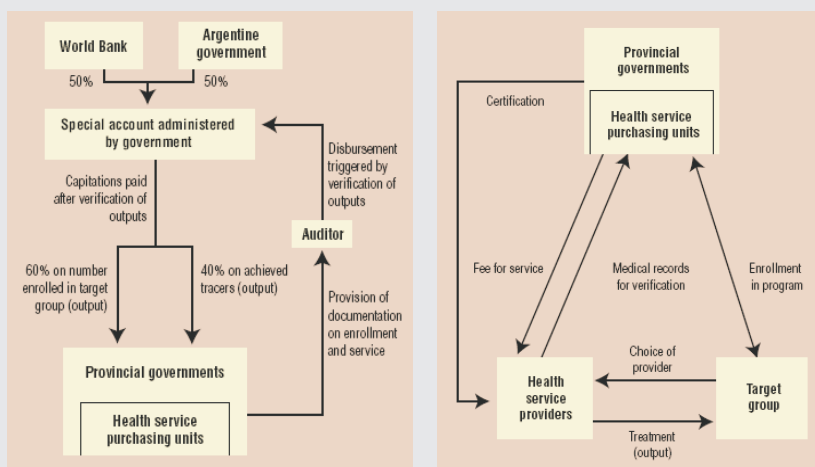


Source: SUSENAS & WDI

One possible avenue for improving the effective fiscal space in a decentralized context would be to design interfiscal transfers such that they are geared towards attainment of health outputs and/or outcomes. Such mechanisms have recently been found to be quite successful in the cases of Argentina (see Box 6-5) and Rwanda and may be something that could be considered in the Indonesian context as only a small percentage of transfers are currently tied to specific sectors and even those are not tied to the attainment of specific outputs or outcomes.

Box 6-5: Designing Interfiscal Transfers to Attain Health Results in Argentina

Argentina's *Plan Nacer* was initiated in 2004 in order to provide coverage for the poor in provinces located in the northern part of the country. The program is designed to provide results-based financing to provincial governments based on the number of enrollees in the program as well as performance on a set of basic health indicators. About 60 percent of interfiscal transfers from the central government to the provincial governments are based on the number of enrollees and the remaining 40 percent is tied to attainment of ten tracer indicators such as immunization rates and average weight at birth of newborns. Service delivery is contracted out by the provincial governments to certified public and private providers with patients free to choose among the providers. The program finances a conditional matching grant from the central government to provinces which pays half the average per capita cost of a basic benefit package covering 80 cost-effective maternal and child health interventions to uninsured mothers and children up to 6 years of age.



The program has built-in incentives for increasing enrollment rates as well as for provision of quality care. Capitation-based and unit-costed payments encourage negotiation with providers and efficiency in delivery of services. Results are independently audited and have so far been quite encouraging.

Source: Johannes, L. 2007.

In addition to efficiency gains from better coordination across all levels of government, several studies have indicated other avenues by which efficiency gains may be realized in Indonesia. For instance, a recent IMF analysis argues that Indonesia—by rationalizing its spending and eliminating energy subsidies—could expand overall fiscal space by almost 1.5 percent of GDP. This would entail moving the bulk of expenditure away from personnel, interest payments, subsidies, and government apparatus as it currently stands (which allow little room for investment in infrastructure, health, and education)(IMF 2007). In addition, the recent *Public Expenditure Review* by the World Bank (2007b) shows that public health expenditure is dominated by spending on salaries of personnel and primarily benefits the richer quintiles: some efficiency gains may be actualized by better targeting and increasing the discretionary elements of health spending.

Another example that shows room for efficiency gains comes from a study of health worker absenteeism in Indonesia. Based on unannounced visits to primary health care facilities in Indonesia, the study found a 40 percent absenteeism rate among medical workers (Chaudhury 2006). Absenteeism rates tended to be higher among doctors than other types of health workers. This clearly demonstrated the need to reevaluate incentives and governance issues related to delivery of health services given that—in “real” terms—expenditure outlays may not be translating effectively into human resource inputs in the health system.

Section Seven:

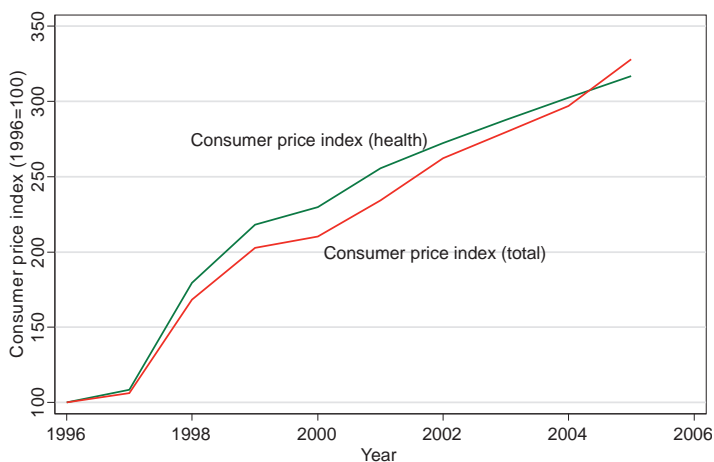
Other Issues: Fiscal Space and the Cost of Health Care

Rising health prices can significantly erode fiscal space for health. If the cost of health care provision rises faster than general price movements in the economy, this can be a major impediment to actualizing, in real terms, any nominal increases in fiscal space for health. In general, given the prominence of (nontradable) labor inputs in the provision of health care, the cost of health care provision is likely to rise at a faster rate than prices in general as economic growth occurs: there is a general tendency for convergence between the prices of tradable and nontradable goods and services as economies become richer.¹⁴ On the flip side, government regulations and policies—including provider payment mechanisms and supply-side incentives—can be utilized to control spiraling medical price inflation.

Health prices have tended to track the overall consumer price index (CPI) quite closely in Indonesia. As can be seen in Figure 7-1, from 1996-2003, the index of health prices rose at a slightly faster pace than the general CPI for the country. In 2004/05, health prices grew at a somewhat slower rate than the general CPI. If these trends are maintained then the threat to fiscal space due to differential price changes in the health sector versus those for the overall economy will remain minimal. However, it is not easy to predict what the demand and supply-side reactions would be to plans for universal health insurance coverage in Indonesia. The behavior of health prices would need to be carefully monitored so as not to jeopardize the financial sustainability of Indonesia's health financing plans.

¹⁴ Lower relative prices of nontradable goods and services are a prominent reason why purchasing-power parity (PPP) estimates of GDP are significantly higher than market exchange-rate converted measures of GDP.

Figure 7-1: Health Prices vs Overall Consumer Price Index in Indonesia (1996-2006)



Source: BPS

Based on international comparisons, health price levels tend to be high in Indonesia. The recent *International Comparison Project* estimated health price levels in 2005 based on a basket of medicine prices and costs of assorted health service consultations across several countries in the Asia-Pacific region. Indonesia's health prices were found to be comparable to those in Malaysia and Philippines, but significantly higher than health prices in Thailand, Vietnam, and India (Table 7-1)(ADB 2007b).

Table 7-1: Health and Overall Price Indexes in Selected Asian Countries (2005)

Country	Overall Price Index	Health Price Index
Bangladesh	48	27
Cambodia	43	18
China	58	22
Hong Kong	100	100
India	45	18
Indonesia	55	49
Lao PDR	38	16
Malaysia	63	45
Mongolia	47	19
Nepal	43	21
Pakistan	44	23
Philippines	54	44
Singapore	89	89
Sri Lanka	48	24
Thailand	54	36
Vietnam	41	19

Source: ADB 2007.

Note: Hong Kong = 100.

Section Eight:

Policy Implications and Discussion

Demographic and epidemiological projections as well as economic growth project rising demand for health care in Indonesia. In addition, its plans for attaining universal health insurance coverage are likely to require substantial additional resources. Given this backdrop, this paper has outlined some options for assessing the extent to which fiscal space for health might become available in the Indonesian context in the near future. Indonesia has an advantage over many countries in that it has a fairly positive prognosis with regard to economic growth in the short term. The key is utilizing the resource envelope flexibility that comes with economic growth in order to expand government health expenditure to meet growing demands on the health system, both for improvements in health care as well as for attaining financial protection from catastrophic health spending.

There are several options for increasing fiscal space for health in Indonesia. As Indonesia plans to move to universal coverage, one option would be to consider some form of cross-subsidization such that some proportion of the resources raised from the premium-paying population could be utilized for subsidizing health care for the poor. Indonesia may also consider earmarked taxation and a reduction in fuel and energy subsidies, although more detailed analyses of the impact of such options on the poor would need to be undertaken before a final consideration could be made.

One key point to note is that fiscal space is not just about increasing nominal spending amounts. Improving the efficiency of existing expenditure outlays is an important source of effective fiscal space and must be included in any discussions or policy dialogue on increased health spending. Indonesia has significant diversity in health system outputs and outcomes which may be related to differences in efficiency of the health system across districts. This would be an important area for further research in terms of learning from better performing districts.

Absorptive capacity constraints can hinder the actualization of fiscal space for health. This is a critical issue in the case of Indonesia given its decentralization with the locus of decision-making and implementation authority substantively devolved to the district level. One key indicator that suggests there are absorptive capacity constraints is the level of unspent reserves held by local governments which is estimated at 3.1 percent of GDP (World Bank 2007b). There are other constraints—for example large personnel expenditures and the difficulty of hiring and firing civil servants—that can pose significant problems to realization of fiscal space. Any analysis of fiscal space should also examine constraints to actualization that may occur along the chain of health service delivery modalities in Indonesia. This is where recent innovations in results-based financing that have been utilized in other countries may be a policy option that could be considered in improving the efficiency of interfiscal health expenditure transfers.



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