

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



Tangcharoensathien, V; Patcharanarumol, W; Ir, P; Aljunid, SM; Mukti, AG; Akkhavong, K; Banzon, E; Huong, DB; Thabrany, H; Mills, A (2011) Health in Southeast Asia 6 Health-financing reforms in southeast Asia: challenges in achieving universal coverage. *Lancet*, 377 (9768). pp. 863-873. ISSN 0140-6736 DOI: [https://doi.org/10.1016/S0140-6736\(10\)61890-9](https://doi.org/10.1016/S0140-6736(10)61890-9)

Downloaded from: <http://researchonline.lshtm.ac.uk/1025/>

DOI: [10.1016/S0140-6736\(10\)61890-9](https://doi.org/10.1016/S0140-6736(10)61890-9)

Usage Guidelines

Please refer to usage guidelines at <http://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: <http://creativecommons.org/licenses/by-nc-nd/2.5/>

Health Financing Reforms in South East Asia: challenges in achieving universal coverage

Authors

Viroj Tangcharoensathien, International Health Policy Program, Thailand
Walaiporn Patcharanarumol, International Health Policy Program, Thailand
Por Ir, Siem Reap Provincial Health Department, Ministry of Health, Cambodia and Institute of Tropical Medicine, Antwerp, Belgium
Syed Mohamed Aljunid, United Nations University, Malaysia
Ali Ghufron Mukti, Gadjah Mada University, Indonesia
Kongsap Akkhavong, National Institute of Public Health, Lao PDR
Eduardo Banzon, World Bank, the Philippines
Dang Boi Huong, Ministry of Health, Vietnam
Hasbullah Thabrany, University of Indonesia, Indonesia
Anne Mills, London School of Hygiene and Tropical Medicine, United Kingdom

Corresponding author: Viroj Tangcharoensathien, email Viroj@ihpp.thaigov.net

Abstract: 159

Word count 4,364

References: XX

Non-text items: Table 5, panels 3, figures 4

Revised Version submitted to Lancet 4 Sept 2010

Abstract

This paper reviews and draws lessons on health financing reforms in seven countries in South East Asia which have sought to reduce dependence on out-of-pocket payments and increase pooled health finance. The resource-poor countries, Cambodia and Lao, have relied largely on donor-supported Health Equity Funds to target the poor, and reliable funding and appropriate identification of the eligible poor are two major challenges for nationwide scaling-up. Payroll-tax-financed social health insurance is commonly applied to formal sector employees (Malaysia excepted), with varying outcomes in term of financial protection. Alternative payment methods have different implications for provider behaviour and financial protection. Two alternative approaches for financial protection of the non-poor outside the formal sector have emerged, contributory arrangements and tax-financed schemes, with differing abilities to achieve universal coverage rapidly. Fiscal space and mobilization of payroll contributions are both important in accelerating universal coverage. As reform is complex, institutional capacity to generate evidence and inform policy is essential and should be strengthened.

1. Introduction

The high level of household out-of-pocket payment for medical bills, resulting in household financial disruption and impoverishment, was a key motive for the adoption in 2005 of a World Health Assembly Resolution on financial protection ^[1]. Countries in South East Asia, hosting 8.7% of the world's population and with fast economic growth and a moderate poverty level of 14.6%, have high potential to accelerate financial risk protection and achieve universal coverage. Figure 1 lays out what is required to achieve universal coverage: (1) adequate service coverage, e.g. a comprehensive package of services and adequate financial protection, on the horizontal axis and (2) increased population coverage, on the vertical axis^[2]. The key issue in resource poor settings is the choice between providing a high level of service and financial protection for a limited group of the population, versus extending a high level of population coverage but with limited services and financial protection.

<Figure 1 here>

This paper assesses approaches to financing reform and progress towards universal coverage in seven low- and middle-income countries in South East Asia, excluding two high income countries [Brunei and Singapore] and Myanmar where limited information is available. Based on documentary analysis, the paper reviews achievements and identifies challenges with respect to population coverage, service coverage and financial protection, in order to share lessons and inform the financing reform efforts of countries outside the region.

Universal coverage is defined as securing access by all citizens to appropriate promotive, preventive, curative and rehabilitative services at an affordable cost ^[3]. Prospects of progress towards this aspiration seem gloomy ^[4] particularly where government fiscal capacity is limited and Social Health Insurance for the employed sector is absent or very small, so limiting the mobilization of additional resources from payroll contributions. Financing healthcare in most developing countries heavily relies on out-of-pocket payments ^[5], with most donors and Global Health Initiatives such as the Global Fund focusing on specific diseases or interventions rather than the broader health system.

In achieving Universal Coverage, three broad dimensions are required, (a) extend population coverage by health insurance or other forms of prepayment schemes, (b) determine which types of services to be covered and ensure quality services are available, (c) provide better financial risk protection. The less copayment by users and the more comprehensive service coverage—the higher levels of financial risk protection. This paper concentrates discussion along these three dimensions, See Figure 2

<Figure 2 here>

Countries with a high share of out-of-pocket payments are more likely to have a high proportion of households facing catastrophic health expenditure, defined as spending on health more than 40% of household consumption expenditure excluding food, or more than 10% of household consumption expenditure ^[6]. A one percent increase in the proportion of out-of-pocket payments in total health expenditure is associated with a 2.2% increase in the proportion of households facing catastrophic health

payments. The larger the share of prepayment in healthcare financing, the smaller the proportion of households that will face catastrophic health spending [7].

However, the existence of prepayment does not guarantee financial protection. Inadequate financial protection has been reported from some prepayment schemes. For example, 15% of those enrolled in the insurance scheme of the Self Employed Women's Association in India experienced a financially catastrophic level of payment even after reimbursement for hospital admission [8]; and the Chinese Rural Cooperative Medical Systems cover only 30% of inpatient expenditure [9]. Impact assessment of the Health Care Fund for the Poor in Vietnam using government revenues to finance the poor and ethnic minorities in selected mountainous provinces suggests that the Fund has not reduced average out of pocket spending and had negligible impacts on utilization among the poorest deciles, though substantially increased service utilization and reduced the risk of catastrophic spending was observed [10].

2. Country background

Seven countries in South East Asia with differing levels of economic development and pace of expansion of health service coverage and financial protection were selected as case studies: two low income countries with low coverage (Cambodia and Lao), and five middle income countries, three with more than 50% coverage and clear policies towards universal coverage (Indonesia, Philippines and Vietnam), and two who have achieved universal coverage (Malaysia and Thailand).

Table 1 shows the wide variation in economic and poverty indicators amongst the countries. Fiscal space, the government's ability to collect tax and spend for desired purposes, measured as a share of GDP, ranges from 8.2% in Cambodia to 16.8% in Thailand (in contrast to the OECD average of 37.4% in 2000) [11].

<Table 1 here>

Poverty incidence not only reflects the number of people who cannot afford to pay when they are sick, but also indicates the magnitude of the health budget required if governments decide to subsidise them. This puts pressure on the limited fiscal space and in poor countries like Cambodia and Lao, funding from donors is inevitable.

3. Current health financing challenges

Two dimensions of challenges are assessed: level and profiles of health expenditure and population coverage by insurance schemes.

3.1 Level and profile of health expenditure

Private health expenditure plays a dominant role in financing healthcare in 5 of the 7 countries, contributing more than 70% of total spending in Cambodia and Lao (Table 2) [12], though the level of catastrophic health expenditure differs between these countries, being 5% of households in Cambodia and 10.5% in Vietnam [13]. Less than 9% of the government budget is allocated to health in 5 of the 7 countries, the only exceptions being Cambodia (since government funding includes donor support

channelled through government) and Thailand. The high level of external resources from donors in Cambodia (16.4% of total health expenditure) and Lao (14.5%) poses questions about not only long term sustainability but also the extent to which donor funded programmes are in line with national priorities ^[14].

<Table 2 here>

Payroll-tax financed social health insurance ranges from none in Cambodia to 12.7% of total health expenditure in Vietnam. Malaysia - an upper middle income country with a high level of formal sector employment – has yet to establish a social health insurance scheme and such spending was only 0.4% of total health expenditure. Despite the well established schemes in the Philippines, Thailand and Vietnam, their spending were below the lower middle income country group average of 15.8% of total health expenditure, reflecting either or both of lower a more limited benefit package.

Total health expenditure per capita in three of the countries, Cambodia, Indonesia, and Lao, is below the minimum US\$49-54 per capita ^[15] estimated to be necessary to provide the interventions and health system platform necessary to meet the MDGs

3.2 Population coverage by financial protection schemes

Table 3 provides the best estimates of insurance coverage for the country populations categorised into four relevant groups for 2009 based on survey or administrative data. Due to the different pace of population coverage expansion, the total insured population varies greatly, with low coverage in Cambodia and Lao, medium coverage in Indonesia and Vietnam, and high coverage in Philippines and Thailand.

The substantial size of the uninsured population, 92.3% in Lao, 76% in Cambodia, 52% in Indonesia and 45% in Vietnam, combined with the high level of out-of-pocket payments, put the uninsured population at risk of financial impoverishment or non use of necessary health care. Social health insurance coverage is low due to the small size of the formal sector.

<Table 3 here>

4. Coverage and financial risk protection extension: efforts and challenges towards universal coverage

The two most often used formal financing approaches are (a) social health insurance for formal sector employees, and (b) general tax finance for the poor and vulnerable, since it is generally accepted that they are the legitimate responsibility of government. Given these approaches, the coverage of the informal sector is a major challenge, described as “squeezing the middle” at a recent conference ^[16], the middle layer referring to the non-poor or not so poor informal sector, while the top layer consists of formal sector employees and the bottom layer comprises the poor.

For clarity, Social Health Insurance is defined as payroll tax financed scheme for employees in the public or private sector; where a certain portion of the employee salary was mandatory deducted, the employer also contributes equal or higher

portion. In some countries the government also contributes. In contrast, tax-financed non-contributory schemes are often designed to provide protection for the poor and the vulnerable, or provide partial subsidies for the informal sector using general tax revenue through annual budgeting processes.

Table 4 slightly re-categorises the population groups to distinguish the economically active (formal and informal sectors) from the poor and rest of the population, and depicts their size. The 'rest of the population' includes non poor children and elderly dependants and other economically inactive populations. The poor include children and elderly dependants and poor in the informal sector. Despite the complexity of potential overlapping populations across these four broad groups, this categorization is useful to inform policy on how health financial protection for each group should be financed and progress in coverage extension monitored.

<Table 4 here>

4.1 Protecting the poor and vulnerable

Cambodia introduced a user fee policy in 1996 with the aim of improving the capacity of the healthcare delivery system, as revenues were used to pay incentives to health workers, supplement the inadequate government budget, and smooth out irregularities of budget disbursement. However, user fees created a barrier for the poor in the absence of an effective exemption system [17 18]. Since the first pilot in 2000, The Health Equity Fund (HEF) is largely financed by donors to compensate health facilities for medical expenditures of the poor and pay some travelling costs, has been gradually scaled up, covering about 68% of the poor, or 23% of the total population, by 2008 [19]. Evidence suggests that the Fund has improved access of the poor and potentially provided financial protection. A number of case studies showed a significant increase in hospital utilisation rate by genuine poor HEF members, without a decrease in utilisation by self paying patients after the introduction of the Fund. In most cases, the number of HEF beneficiaries accounted for more than one thirds of the total hospital inpatients [20 21 22]. However, there have been questions of financial sustainability and government capacity to scale up using its own resources [23].

The 1995 user charge policy in Lao provided provision for exempting the poor but this did not work well as village leaders verified the poor on an ad hoc basis. Free care for the poor was a "mandate with inadequate funding"—apart from routine allocations for medicines and staff salary, there was no additional budget line for this purpose [24]. Health centres and hospitals were reluctant to subsidize the poor using their own revenue from user fees. A donor funded health equity fund has been piloted by in 2003 and scaled up after assessment found increased utilization by the poor, and recent government policy dialogues have been in favour of increasing funding for the poor.

In response to the 1997 Asian economic crisis, which hit the poor hard, Indonesia introduced a tax-financed targeted scheme for the poor and the near poor, including the homeless and orphans. Finance is from central and district governments, and providers are paid on a case mix-adjusted basis for both outpatient and inpatient services. Nation-wide scaling up reached 76.4 million by 2008, so almost all the poor and the near poor are covered. From hospital administrative records, utilization has increased for ambulatory and inpatient care [25], and the rich-poor utilization gap

has reduced. Due to fiscal constraints, the per capita government subsidy is only US\$ 6 per year for a package of outpatient and inpatient services compared with \$41.8 per capita total health expenditure, and so may result in a low level of service provision and financial protection. Out-of-pocket payment remains high.

The Philippine Health Insurance Corporation (PhilHealth) has introduced a sponsored programme since October 1997 for poor households identified and registered by local government. The premium for this programme is subsidized by central (from 50% to 90%) and local (from 10% to 50%) governments. However, the average share is 80% and 20% by central and local governments respectively. Annual enrolment has depended on local government political will and fiscal capacity, for example peaking during election years.

Thailand operated a targeting scheme for the poor between 1975 and 2002 when universal coverage was introduced. Initially, partial to full exemption was left to health worker discretion, and subsequently a means test [to verify whether an individual or family is eligible for help from the government] was used to identify the poor, initially applied by health workers and later by a local committee. Despite the community involvement, nepotism resulted in under-coverage of the poor and leakage to the non-poor associated with local politicians [26].

A common trend has emerged across the countries that health services for the poor are subsidized by tax through budget allocations to public providers, with additional support in Lao and Cambodia from donors to health equity funds. Historically, means-testing to identify the poor has not been found to be very accurate [27 28], and this remains a challenge in the countries which rely on it. Panel 1 compares targeting experiences in three countries.

<Panel 1 here>

4.2 Protecting the formal employment sector

A common pattern emerges, with Indonesia, Lao, Philippines, Thailand and Vietnam all employing mandatory social health insurance for the formal sector. Often it is managed by a non-profit independent body with a clear governing structure, and services are purchased on behalf of members. A percentage of the payroll is deducted from employees and an equal or higher contribution made by employers, while some governments also contribute as in Thailand.

A social health insurance scheme can play a significant strategic purchasing role in regulating public and private provider behaviour and achieving goals of efficiency, quality and financial protection. Different provider payment arrangements send different signals influencing doctors' clinical decisions and provider behaviour [29]. International experience indicates that fee for service payment stimulates unnecessary diagnosis, prescribing and treatment resulting in cost escalation; closed-end payment such as capitation and case-base payment better contain costs.

The design of PhilHealth does not provide adequate financial protection for its members. Outpatient services are not covered; inpatient care is reimbursed up to a maximum ceiling, allowing "balance billing" where patients pay additional bills beyond the level of reimbursement. The share of social health insurance in total health expenditure was 11% in 2005 and has declined in 2007 [30 31], reflecting

increasingly limited financial protection to members. An increased incidence of catastrophic health spending [measured by >25% of non-food consumption expenditure of households] was also observed, from 2.11% of the total population in 2000 to 2.21% in 2003 and 2.97 in 2006 [32]. PhilHealth found that reimbursement was only slightly more than one third of the total medical bill paid by patients in 2008 [33], and has determined to improve financial protection of members.

While the PhilHealth fee-for-service model ensures free patient choice of provider, the Thai social health insurance scheme introduced in 1991 limits such choice through a capitation contract model. Members register annually with preferred public or private contractors and in return, contractors are paid a capitation fee, currently 1,900 Baht (US\$ 57) per member, to provide all outpatient and inpatient services. Balance billing is illegal. The scheme covers private employees only, their dependents falling under the universal coverage scheme, and public employees and dependents under a separate, non contributory scheme financed by general tax.

The Thai capitation model ensures cost containment and transfers financial risk to providers, whereas fee-for-service transfers financial risk to PhilHealth members through balance billing. The risk under capitation is inadequate services, so unit costs and utilization rates are monitored and members can change contractor annually if they are unhappy. Studies have suggested adequate service utilization [34, 35, 36].

Vietnam, having experienced the downside of fee-for-service such as excessive diagnosis and treatment and levels of copayment up to 30% of total bills, has introduced in 2008 a law on health insurance which provides for capitation for primary care services to be fully rolled out by 2015, and case-based payment to be used for inpatient care.

Strategic purchasing, in particular design of benefit package and provider payment method, determines system efficiency, and level of out-of-pocket and catastrophic spending. Once a payment system is entrenched, particularly where private-for-profit providers dominate the healthcare market, radical reform from fee-for-service to capitation or case-based payment will face united resistance from the medical profession, as experienced in South Korea [37]. Introducing the right purchasing strategies early on is a key foundation for the successful performance of social health insurance. Panel 2, on Malaysia, demonstrates some of the complexities of agreeing the introduction and design of social health insurance.

<Panel 2 here>

4.3 Protecting the informal sector and the rest of population

The informal sector and the rest of the population make up a large proportion, for example, 49% in Cambodia, 64% Indonesia and 73% Vietnam. Due to the sheer numbers, their limited capacity to pay premiums, and the feasibility of enforcing payment, it is especially challenging to extend coverage to this group. The seven countries have faced a key choice, between a contributory scheme and a general tax-financed scheme.

Both PhilHealth and the Vietnam social insurance scheme employ a contributory approach to extend coverage to the informal sector, with premiums collected from groups such as taxi drivers and street vendors. PhilHealth seeks to collect a fixed annual premium of 1,200 Peso (US\$ 25.8) from individual members, but enforcement is not effective despite huge effort and various innovations. Also the administrative cost of premium collection is high and collection complex due to high mobility, and interruption and seasonality of cash income. Adverse selection has been observed since members enrolling individually are mostly chronically ill and have high utilization rates. This element of PhilHealth requires subsidies from the payroll-tax financed component.

In Vietnam, tax funding is used to subsidise the premium for the informal sector by 50%. There is a risk that coverage may stagnate once the easy-to-reach population has been enrolled, and the administrative cost of premium collection will be high in hard-to-reach remote areas.

The experience of Thailand has been that despite community-based^[38] and then publicly subsidised voluntary health insurance^[39], 30% of the total population remained uninsured in 2001, mostly in the informal sector. In addition to problems of adverse selection and financial viability ^[40], Thailand similarly found that it is not technically feasible to enforce premium payment in the informal sector. When a window of opportunity arose with a political demand to reach universal coverage in a year as promised in the January 2001 General Election campaign, a contributory scheme was ruled out both on grounds of speed and because it was politically unpalatable due to its implications for voters supporting the new government. The political context at that time provided no option but to adopt general tax-funding for universal coverage, though financial assessment demonstrated its feasibility at the time ^[41]. The caveat is the question of financial feasibility in the much longer term, as Thailand ages and population demands increase.

Thailand has squeezed bottom-up by extending tax financing from the poor to the informal and rest of the population, while the Philippines and Vietnam have squeezed top-down by extending the contributory scheme from the formal to the informal sector.

Figure 3 summarizes the achievements in insurance coverage extension by 2009 for three population groups (including together the informal and rest of population groups) in six countries. Lao faces challenges in coverage extension to all groups, while Vietnam has fully covered the formal sector and the poor, but has a major challenge covering the informal sector and the rest of the population through a contributory scheme. Cambodia has made good progress in using health equity funds to cover the poor though this needs to be sustained, and introducing social health insurance for the formal sector and devising arrangements to cover the large informal sector is a huge challenge both for fiscal capacity and programme management.

PhilHealth faces two major challenges, to extend coverage to the poor by encouraging increased local government financial commitments, and to enrol the hard-to-reach informal sector into the individual contributory scheme. Huge challenges in Indonesia are also coverage extension to the informal sector and the rest of population with a clear policy on sources of financing, while sustaining coverage of the poor and near-poor in a fully decentralized system.

It is apparent that there remains in the region a huge gap of coverage, which is a daunting challenge in the next wave of reform efforts.

<Figure 3 here>

5. Discussion and recommendations

Table 5 summarizes achievements in the three dimensions. Population coverage has been determined by willingness and capacity to subsidize the poor, enforce formal sector enrolment into social health insurance, and protect the rest of the population through prepayment, whether through tax or contributions. The level of financial protection is determined by willingness and fiscal capacity to purchase a large or small benefit package, and by copayment policy.

<Table 5 here>

The estimate of insurance coverage of 76% for Philippines is from PhilHealth; a recent household survey estimates national coverage of 38% ^[42], suggesting the need to improve PhilHealth's electronic membership database.

All three insurance schemes in Thailand (covering the formal private sector, civil servants, and the rest of the population) provide a comprehensive benefit package with virtually no copayment. Out-of-pocket payment has decreased from 33% of total health expenditure in 2001 prior to universal coverage, to 17.7% in 2008 ^[43], and the reduction in the incidence and intensity of catastrophic payment has especially benefited poorer quintiles ^[44 45].

With universal coverage, Thailand implemented a purchaser/provider split and required people to choose a local primary care unit at which to register, with their costs covered through capitation and case-based payment. There is evidence that healthcare providers are becoming more responsive to patients ^[46]. Malaysia has retained the traditional Ministry of Health power of financing and provision. The perceived lack of responsiveness of public providers has led to the high level of out-of-pocket payments for private sector care, which is a major source of public concern. ^[47 48 49]

Figure 4 depicts the association between insurance coverage and GGHE as percent of THE, and the size of bubble reflects fiscal space for each country. Three country groups are apparent: tax effort more than 15% of GDP (Malaysia and Thailand), 10% to 15% (Philippines, Vietnam and Indonesia) and less than 10% (Lao and Cambodia).

<Figure 4 here>

Long term fiscal capacity to sustain the universal coverage in Thailand UC scheme is a major policy challenge, especially given its large benefit package. Regular assessment of cost drivers and long term financial projections are required, as well as capacity to generate and act on evidence on adopting the cost-effective interventions. For Malaysia, there is clearly a need to improve public sector

responsiveness and channel a much greater proportion of funding through prepayment arrangements. [50 51]

To reduce out-of-pocket expenditure in the Philippines and Indonesia, the government needs to spend more on financing schemes for the poor. The US\$ 6 per year for a package of outpatient and inpatient services for poor Indonesians can cover only a very limited set of services leaving high levels of out-of-pocket expenditure, and the contributory premium of US\$ 25.8 for the informal sector in Philippines also provides only a small package and thus co-exists with high levels of out-of-pocket payment. General tax could be used to finance individual enrollees in PhilHealth, though this is major political decision as it departs from the current law. The government needs to broaden the tax base and diversity the sources of government non-tax revenue. However, improving the current low contribution to people in the informal sector is consistent with the policy direction of PhilHealth.

A clear message emerges from the analysis of Vietnam; the government needs to increase fiscal space to health in the light of consistent favourable economic performance in order to fulfil its commitment towards universal coverage by 2014. With a contributory scheme for the informal sector, government subsidies may increase enrolment but the hard to reach will never be covered, and at some point consideration of a tax financed scheme will be required in paying premium and enrolling the poor to the Vietnam Social Security, demanding strong political leadership supported by fiscal capacities.

Fiscal space constraints limit coverage extension to the poor in Cambodia and Lao, making donor resources inevitable. There are opportunities to harmonize and reorient funding from global health initiatives to strengthen health systems, in compliance with the Paris Declaration on aids effectiveness, in particular primary healthcare which can produce substantial health gains. PHC contributes to financial protection and better accessed by the poor, though not adequate where high cost and other specialised care are not covered. It is possible to improve the effectiveness of means testing through active engagement by the community members in identifying the poor, and Cambodian experience demonstrates the advantage of health equity fund demand side financing in improving the accountability of providers to the poor. Removing user charges without additional funding to subsidize healthcare for the poor may be harmful [52].

Newly established social health insurance schemes should learn from experience on the strengths and weaknesses of different provider payment models. PhilHealth not only provides limited financial protection to its members, but also loses its potential monopsonistic purchasing power to steer healthcare providers to improve efficiency:

"PhilHealth must move away from fee for service towards provider payment schemes where it can easily leverage its purchasing power of more than 18.5 billion pesos of health care purchases in 2008" [53]

Social health insurance in Lao, though mandatory, does not cover the full eligible population and efforts should be made to expand coverage. Cambodia has yet to establish social health insurance to encompass the rapidly increasing formally employed sector. Scaling up of community based health insurance, though it suffers from adverse selection, can be a temporary tool for coverage extension to the informal sector, as demonstrated by Thai experience.

Coverage extension to the informal sector and the population outside formal schemes is at cross road, with contributory schemes leading one way and tax financing another. The choice depends on political and health systems contexts. Well functioning contributory arrangements require an effective government and administrative capacities. When fiscal space is more favourable, the Thai case shows that tax financed arrangements are feasible. See Panel 3 on key messages.

<Panel 3 here>

While decisions on extending coverage to the various population groups can be made on pragmatic grounds, it is essential to harmonize benefit package, level and methods of provider payments across these schemes, as members flow from one scheme to another and also differences are a major source of inequity. In a decentralized context, particularly in Indonesia and the Philippines, there needs to be evidence on the proper balance between national and local government financing and roles in coverage extension. Developing countries can learn from these experiences, as they have similar situations of various mechanisms or schemes for the poor, the formal and informal sector.

Prepayment mechanisms protect people from financial catastrophe, but there is no strong evidence that SHI systems offer better or worse protection than tax-based systems [54]. However, Wagstaff [55] argues that SHI does not necessarily efficient partly because of poor regulation of SHI purchasers and the costs of collecting revenues can be substantial, even in the formal sector where non-enrolment and evasion are commonplace. SHI fares badly in covering the non-poor informal sector workers until the economy has reached a high level of economic development.

Financing reform is complex and requires context specific evidence; national institutional capacity to generate evidence and effective translation into policy decisions are vital [56 57]. However, this does not mean there is no scope for countries to learn from each other. As this paper has shown and the authors have experienced, there are great opportunities to share experiences among countries in the region in the movement towards universal coverage for the betterment of populations. Moreover, the issues they face, including how to improve the responsiveness of public services, expand social health insurance, and identify and protect the poor, and whether coverage of the informal sector is better done through contributory arrangements or tax finance, are ones faced across the developing world.

This paper timely contributes to the current global debates on how to provide financial risk protection to the poor and vulnerable, how to extend coverage to the formal sector and the most difficult is people engaged in the informal section and finally how to reach universal coverage using experiences and lessons from seven countries in South East Asia with different pace of development. This paper also provides strengths and weakness of different designs of strategic purchasing, debates on financing source for the informal sector between contribution by members and general tax. This depends very much on the political decision, historical precedence and social value

To conclude, government holds responsibility to protect its citizens from catastrophic health expenditure and impoverishment, or welfare loss from inability to use health services when needed. Key messages emerged for resource poor settings, first and foremost extension of functional primary health care services is an initial priority by

government as geographical access is still a major barrier; undeniably one needs to harmonize donor resources to strengthen primary healthcare. Universal access to primary healthcare is an essential stepping stone towards achieving universal coverage. Financial risk protection such as user fee exemption for the poor, effective identification of the poor and adequate subsidies to the poor can protect from financial catastrophe. Second, the salary-based employees though the size is small, should be covered by payroll-tax financed scheme. Finally, when the poor are adequately protected by tax-funded schemes and where fiscal capacity is feasible, introducing partial subsidized scheme for the informal sector can be an optimum choice. These practical steps of reform should have far sight on long term harmonization of targeting schemes.

Acknowledgments

The authors thank the China Medical Board for its initiatives and support in producing the Lancet series on Health in South East Asia. Partnership and collaborative work among co-authors in the Region are strong foundations for further regional collaboration in the efforts towards better financial risk protection and universal coverage in the Region. Thanks to the China Medical Board and the Regional Steering Committee in convening various workshops.

Table 1 Country background

| | Cambodia | Indonesia | Lao PDR | Malaysia | Philippines | Thailand | Vietnam |
|---|----------|-----------|---------|----------|-------------|----------|---------|
| GNI per capita, PPP\$ (2008) * | 1,820 | 3,830 | 2,040 | 13,740 | 3,900 | 5,990 | 2,700 |
| GDP annual growth, % * | | | | | | | |
| • 2000 | 8.8 | 4.9 | 5.8 | 8.9 | 6.0 | 4.8 | 6.8 |
| • 2005 | 13.3 | 5.7 | 7.1 | 5.3 | 5.0 | 4.6 | 8.4 |
| • 2008 | 5.2 | 6.1 | 7.5 | 4.6 | 3.8 | 2.6 | 6.1 |
| Fiscal space: government tax as % of GDP * | 8.2 | 12.3 | 10.1 | 16.6 | 14.3 | 16.8 | 13.0 |
| | (2006) | (2004) | (2007) | (2003) | (2006) | (2007) | (2007) |
| Poverty incidence, % below national poverty line** | 34.7 | 20.2 | 32.0 | 8.7 | 32.9 | 21.0 | 18.2 |
| | (2004) | (2009) | (2002) | (2004) | (2006) | (2000) | (2006) |
| | | | 27.0 | | | 8.5 | 13.5 |
| | | | (2008) | | | (2007) | (2008) |
| Poverty headcount ratio at \$1.25 a day (PPP), %*** | 25.8 | 29.4 | NA | NA | 22.6 | NA | 21.5 |
| | (2007) | (2007) | | | (2006) | | (2006) |

Sources: * World Development Indicators database, April 2009, except fiscal space of Vietnam was analysed by the country author based on data from the General Statistical Office, Vietnam

** Official country sources

*** World Development Indicators database, searching from the website <http://data.worldbank.org/indicator/SI.POV.DDAY> as of 31 August 2010

NA: not available

Table 2 Key indicators of health financing, selected countries, 2007

| | THE, % GDP | GGHE, % THE * | Priv. HE, % of THE * | GGHE, % government expenditure | External, % of THE | SHI, % THE | OOP, % THE | THE per capita US\$ | THE Per capita PPP int. \$ |
|---------------------|------------|---------------|----------------------|--------------------------------|--------------------|------------|------------|---------------------|----------------------------|
| Cambodia | 5.9 | 29.0 | 71.0 | 11.2 | 16.4 | 0.0 | 60.1 | 36.8 | 108.1 |
| Indonesia | 2.2 | 54.5 | 45.5 | 6.2 | 1.7 | 8.7 | 30.1 | 41.8 | 81.0 |
| Lao DPR | 4.0 | 18.9 | 81.1 | 3.7 | 14.5 | 2.3 | 61.7 | 26.9 | 83.9 |
| Malaysia | 4.4 | 44.4 | 55.6 | 6.9 | 0.0 | 0.4 | 40.7 | 307.2 | 604.4 |
| Philippines | 3.9 | 34.7 | 65.3 | 6.7 | 1.3 | 7.7 | 54.7 | 62.6 | 130.2 |
| Thailand | 3.7 | 73.2 | 26.8 | 13.1 | 0.3 | 7.1 | 19.2 | 136.5 | 285.7 |
| Viet Nam | 7.1 | 39.3 | 60.7 | 8.7 | 1.6 | 12.7 | 54.8 | 58.3 | 182.7 |
| Low income | 5.3 | 41.9 | 58.1 | 8.7 | 17.5 | 4.6 | 48.3 | 26.8 | 67.0 |
| Lower middle Income | 4.3 | 42.4 | 57.6 | 7.9 | 1.0 | 15.8 | 52.1 | 80.2 | 181.0 |
| Upper middle Income | 6.4 | 55.2 | 44.8 | 9.4 | 0.2 | 21.0 | 30.9 | 487.9 | 757.0 |
| High Income | 11.2 | 61.3 | 38.7 | 17.2 | 0.0 | 25.6 | 14.0 | 4,405.2 | 4,145.0 |
| GLOBAL | 9.7 | 59.6 | 40.4 | 15.4 | 0.2 | 24.6 | 17.7 | 802.3 | 862.5 |

Source: World Health Statistics 2010.

*In accordance with National Health Accounts conventions, external finance is included within government and private shares (which sum to 100%).

Note: THE: total health expenditure, GGHE: general government health expenditure, Priv. HE: private health expenditure, SHI: social health insurance, OOP: Out-of-pocket, PPP purchasing power parity, int \$: international dollar, NA not available.

Note that private health expenditure includes OOP, private social insurance and other private insurance.

Table 3 Insurance coverage, estimates for 2009

| Population group | % of total population | | | | | | |
|---|-----------------------|-----------|---------|----------|-------------|----------|---------|
| | Cambodia | Indonesia | Lao PDR | Malaysia | Philippines | Thailand | Vietnam |
| 1. Total insured, % | 24 | 48 | 8 | 100 | 76 | 98 | 55 |
| 1.1 Formal public employees including retirees, % | 0 | 10 | 2 | 29 | 9 | 10 | 6 |
| 1.2 Formal private sector employees, % | 0 | 5 | 2 | | 26 | 13 | 7 |
| 1.3 The informal sector, %* | 1 | 13 | 2 | 62 | 23 | 67 | 28 |
| 1.4 The poor, % | 23 | 20 | 2 | 9 | 18 | 9 | 14 |
| 2. Total uninsured, % | 76 | 52 | 92 | 0 | 24 | 2 | 45 |
| 3. Total % | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Total population, million | 13.4 | 228.9 | 5.8 | 28.3 | 86.3 | 64.0 | 86.2 |

Source: country official estimates

Note * The informal sector comprises those outside formal sector employment who are not poor

Table 4 Size of specific population groups, 2008

| Country | The poor | Economically active | | Rest of population | Total |
|-------------|----------|------------------------|-----------------|--------------------|-------|
| | | Formal employed sector | Informal sector | | |
| | a | b | c | d | e |
| Cambodia | 35% | 17% | 43% | 6% | 100% |
| Indonesia | 20% | 16% | 29% | 35% | 100% |
| Lao PDR | 27% | 14% | 40% | 19% | 100% |
| Malaysia | 9% | 29% | 8% | 54% | 100% |
| Philippines | 33% | 22% | 17% | 28% | 100% |
| Thailand | 9% | 27% | 32% | 32% | 100% |
| Vietnam | 14% | 13% | 36% | 37% | 100% |

Note:

- The poor (a) was calculated based on poverty incidence using a national poverty line, see Table 1
- The economically active groups: the formal sector (b) and informal sector (c) were estimated from ILO worldwide labour statistics for 2008, <http://laborsta.ilo.org/STP> [accessed 25 June 2010], except Cambodia where the formal sector was estimated by the country author based on the Cambodian national population census, and Vietnam where data are for 2004.
- The rest of the population (d) is the difference between the total population and the other three groups.

Table 5 Summary population, service coverage and financial protection, selected countries 2009.

| Country | Population coverage by financial protection schemes | Health service coverage by financial protection schemes | Financial protection for the whole population measured by OOP as % of THE, 2007 |
|-------------|---|---|---|
| Cambodia | 24% | The poor covered by the health equity fund are entitled to a comprehensive package, including transport cost and food allowance, but the scope and quality of care provided at government health facilities are rather limited | 60.1% |
| Indonesia | 48% | Though the policy intention is to provide comprehensive services, the low per capita government subsidy for the poor of US\$ 6 per year for a package of outpatient and inpatient services may result in inadequate service provision, high levels of self-payment and low levels of financial protection. | 30.1% |
| Lao PDR | 7.7% | In principle, comprehensive coverage for <small>social health insurance</small> and government employee schemes, but low level of funding results in a small service package | 61.7% |
| Malaysia | 100% | Primary care services focus on maternal and child health; curative services are free for all. Services are rationed by waiting time, and limited number of family physicians in health centres; patients opt to pay for private services. Survey reports 62% of ambulatory care was provided by private clinics | 40.7% |
| Philippines | 76% | Benefit package covers admission only except for the sponsored programme which also covers outpatient services; high level of copayment for all PhilHealth components – average reimbursement is 54% of the total medical bill, the balance being paid out-of-pocket. | 54.7% |
| Thailand | 98% | Comprehensive benefit package, free at point of service for all three public insurance schemes | 19.2% |
| Vietnam | 54.8% | Benefit package comprehensive but | 54.8% |

| | | | |
|--|--|---|--|
| | | substantial level of co-payment, 5-20% of medical bills | |
|--|--|---|--|

Source: authors' synthesis

Panel 1 Challenges in targeting the poor: lessons from Cambodia, Lao and the Philippines

In Cambodia, health equity fund beneficiaries are identified based on eligibility criteria either at the community level (pre-identification) or at health facilities through questionnaire interviews using proxy means-tests such as durable assets, housing, land ownership, number of working members, dependents and disabled members, and estimates of household income, expenditure and debt. Identification at point of service picks up those missed at community level.

In Lao, a village committee, using certain means testing criteria, identifies poor households eligible for the Fund. In non Fund areas, the village head issues a letter at the request of a patient, certifying him/her as poor on a case by case basis. Unlike Fund beneficiaries who get the cost of their free care reimbursed to hospitals, the poor in non Fund areas have to negotiate for exemption with providers as there is no budget line to subsidize free care for the poor. In practice, some patients are allowed to delay payment [58].

Philippine local government units use a family income test to determine who are indigent for a certain period, and enrol them in a programme which has budget subsidies covering outpatient and inpatient care. The new government has now mandated the central Department of Social Welfare and Development to take this over, since income tests are inconsistently applied by local government units.

Potential leakages to non-poor are likely in all three countries though require further study especially in Cambodia and Lao. In both these two countries, supporting transport costs for Fund beneficiaries, in addition to medical costs, has been found to be essential to facilitate access to care by the poor.

Lessons

1. Ad hoc certification in non-Fund areas, and limited funding, are major factors in Lao for under-coverage of the poor.
2. The health equity funds in Cambodia and Lao, with clear identification procedures and reliable funding, have improved utilization rates and tend to provide better financial protection. Similarly, the sponsored programme of PhilHealth, with clear targeted funding, has improved access and use.
3. In addition to the provision of basic quality health care, support of transport and food for poor patients during hospitalisation appears to be essential
4. Objective criteria, and transparent and participatory engagement by local communities in identifying the poor as experienced in all three countries, though challenging, are essential to prevent favouritism and leakage to non-poor.

Panel 2 Malaysia: unsuccessful efforts toward social health insurance [59 60]

In Malaysia, an upper middle income country, health services are free for all citizens at primary, secondary and tertiary levels with minimum copayment, ranging from RM 1.00 (USD 0.31) for outpatients to RM 3.00 (USD 0.94) per admission day. The country spent US\$ 307.2 per capita on health in 2007, using supply side financing through annual budget allocations to public sector providers. Despite this relatively high expenditure, various problems are apparent --high levels of out-of-pocket payment making up 40.7% of total health expenditure, mostly spent on secondary and tertiary private services; long waiting times for procedures in public hospitals, for example 23 weeks for orthopaedic surgery [61]; rising health care costs due to the epidemiological transition in the face of limited public funds; and poorly regulated private fees.

Between 1985 and 1996, the Government commissioned five reviews on health financing; recommendations were made that the Government should establish a National Health Financing Scheme to pool resources from both public and private sources, and provide universal financial risk protection based on social health insurance principles. Discussions on health financing reform were resurrected in 2000. From 2000 to 2006, multi-stakeholder meetings were convened to discuss the National Health Financing Mechanism. However, no decision was made and various barriers can be identified in addition to lack of political will:

- Loser/gainer issues: the proposed introduction of social health insurance requires mandatory contributions by the formal sector such as civil servants and private sector employees who have reservations about having to pay on top of personal income tax. The voices of the informal sector and the poor who are potential gainers from the new scheme are not heard. Social solidarity mechanisms appear insufficient to overcome opposition.
- Private interests: there is strong lobbying by private health insurance operators who fear the Scheme will dilute their profits.
- Institutional conflict of interest: the proposed National Health Financing Authority which will administer the national scheme threatens the ministry of health which may lose all its financing power to the Authority.
- Technical barriers: collection of premiums from the informal sector is difficult.

Panel 3 Key messages: 'Squeezing the middle'

The development of a universal coverage policy is helped by explicit consideration of how best to cover and finance specific population groups: those in formal employment, the poor and vulnerable, and the 'middle' - the informal sector and the rest of the population.

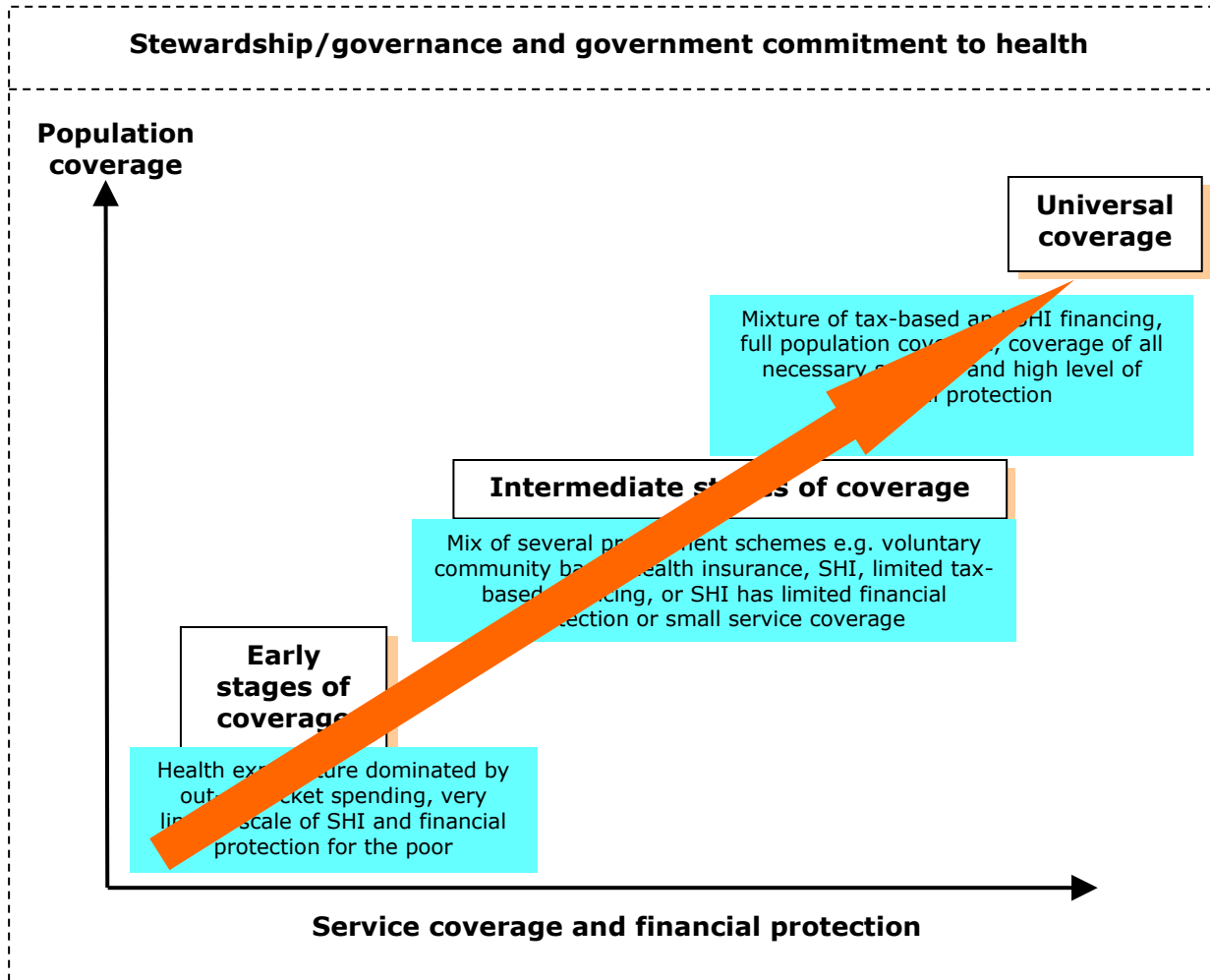
Those in formal employment can be given financial protection through payroll-financed social health insurance, or tax-funded arrangements.

It is well accepted that the poor and vulnerable require highly subsidised arrangements, and there is good evidence from Lao and Cambodia that demand-side targeted approaches such as health equity funds work better than a simple fee exemptions policy^[62 63 64].

The 'middle' remains the challenge, with countries such as Philippines and Vietnam seeking to expand coverage through contributory arrangements, and others such as Thailand using tax funding.

Comparative analysis such as that presented in this paper is helpful in bringing diverse experiences from the South East Asia Region together, learning lessons, and developing a culture of evidence in decision-making.

Figure 1 Achieving universal coverage



Source: Modified from Carrin G et al 2008 [65]

Figure 2 Three dimensions of universal health coverage

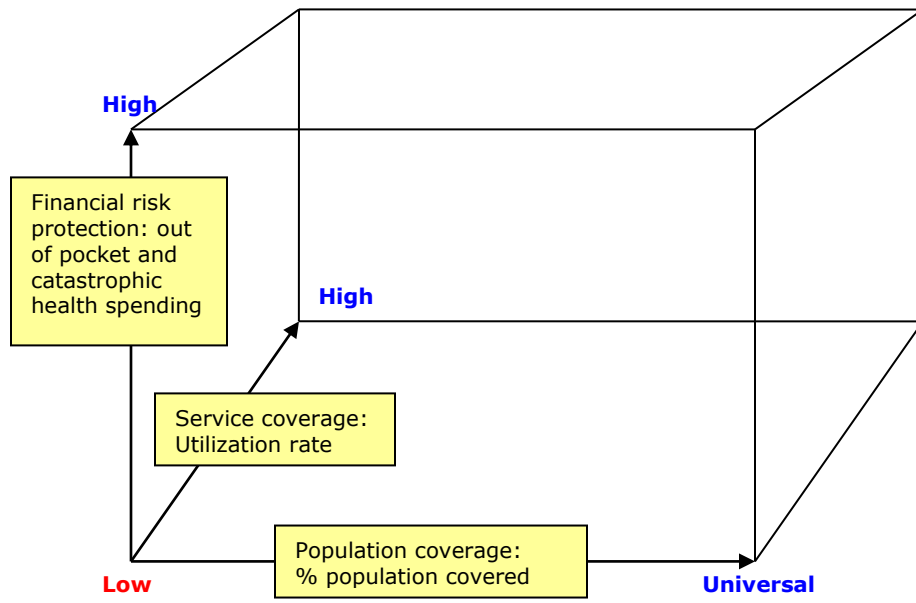


Figure 3 Insurance coverage by three population groups,, 2009

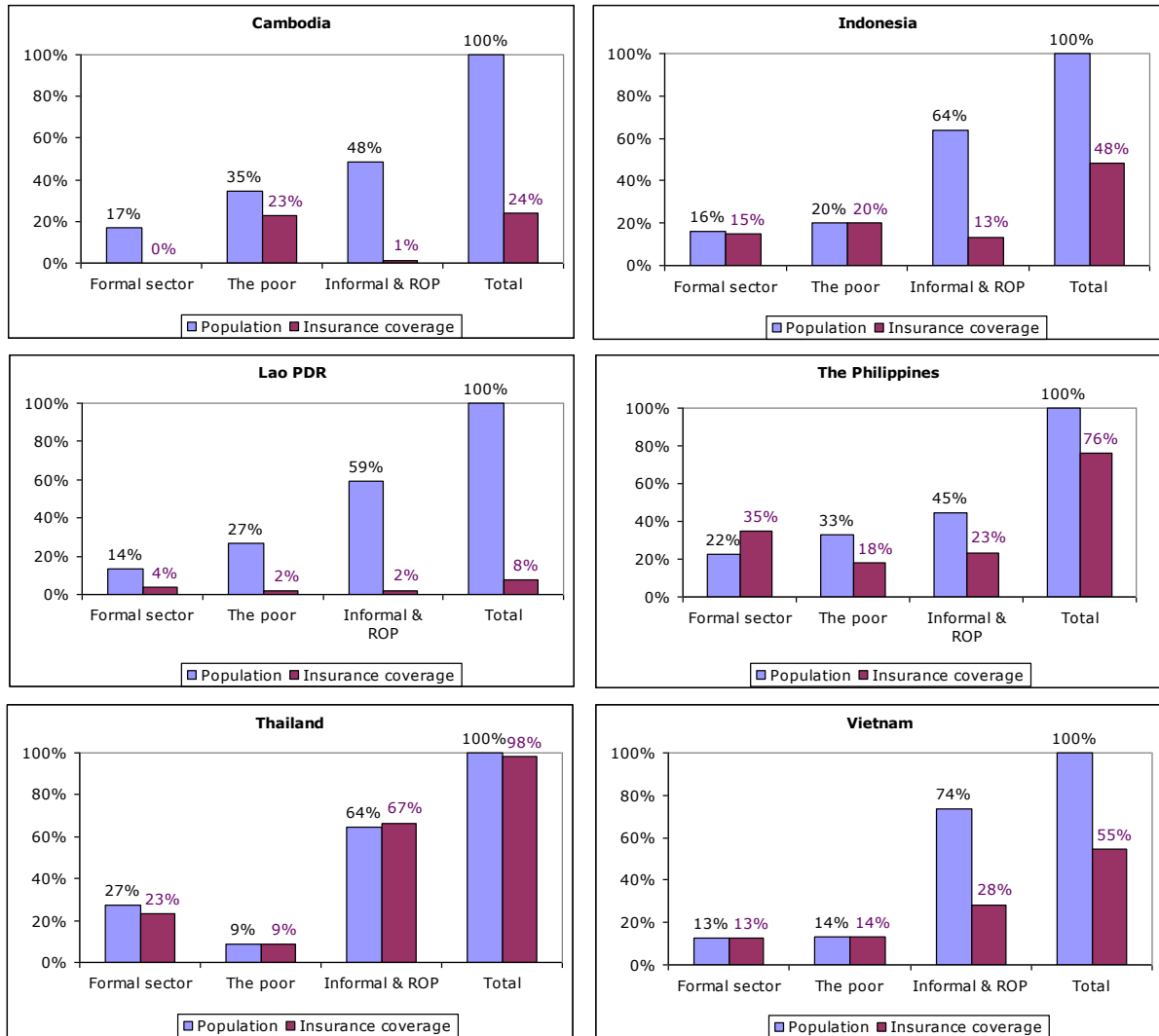
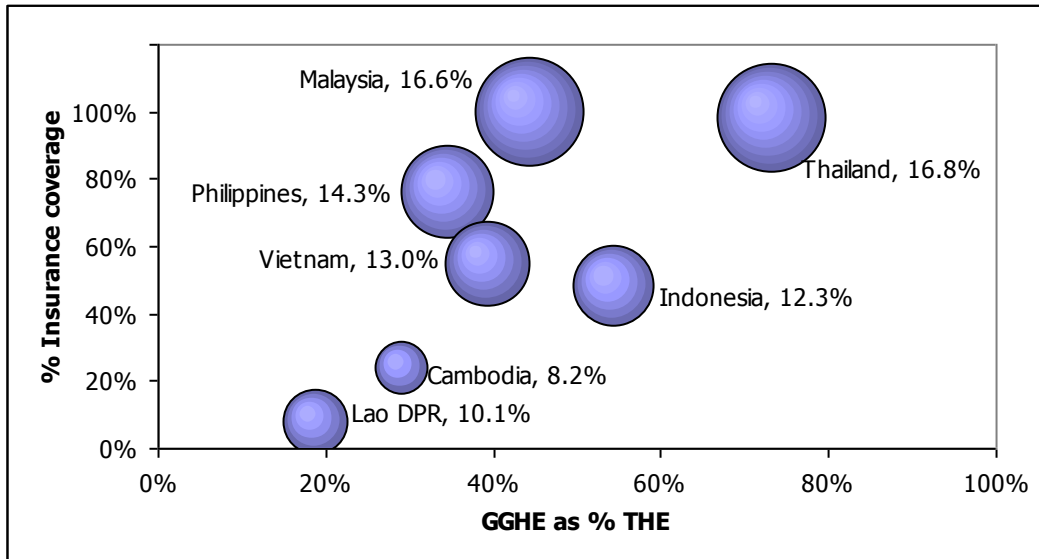


Figure 4 Striding towards universal coverage, the role of fiscal space



Note: the size of bubble reflects the magnitude of fiscal space measured by tax as % of GDP

References

- ¹ World Health Organization, WHA58.33 Sustainable health financing, universal coverage and social health Insurance. http://apps.who.int/gb/ebwha/pdf_files/WHA58/WHA58_33-en.pdf access 14 February 2010
- ² Carrin G, Mathauer I, Xu K, Evans D. Universal coverage of health services: tailoring its implementation. *Bulletin of the World Health Organization* 2008; 86:857-63
- ³ Carrin G, Mathauer I, Xu K, Evans D. Universal coverage of health services: tailoring its implementation. *Bulletin of the World Health Organization* 2008; 86:857-63
- ⁴ Garrett L, Chowdhury M, Pablos Mendez A. All for universal health coverage. *Lancet* 2009; 374: 1294-99
- ⁵ O'Donnell O, van Doorslaer E, Rannan-Eliya RP, Somanathan A, Adhikari SR, Akkazieva B, Harbianto D, et al. Who pays for health care in Asia? *Journal of Health Economics* 2008; 27:460-475.
- ⁶ Xu K, Evans D, Kawabata K, Zeramdini R, Klavus J, Murray CJL. Household catastrophic health expenditure: a multi-country analysis. *Lancet* 2003; 362: 111-17
- ⁷ Kawabata K, Xu K, Carrin G. Preventing impoverishment through protection against catastrophic health expenditure. *Bulletin of the World Health Organization* 2002; 80: 612
- ⁸ Ranson MK. Reduction of catastrophic health care expenditures by a community-based health insurance scheme in Gujarat, India: current experiences and challenges. *Bulletin of the World Health Organization* 2002; 80:613-21
- ⁹ Yip W, Hsiao WC. Market Watch: The Chinese health system at a crossroads. *Health Affairs* 2008; 27: 460-68.
- ¹⁰ Wagstaff A. Health insurance for the poor: initial impacts of Vietnam's health care fund for the poor. Impact Evaluation Series No. 11 Policy; Research Working Paper No. WPS 4134, 2007, The World Bank
- ¹¹ OECD, Revenue Statistics 1965-2001, OECD, Paris 2002. http://www.oecd.org/document/1/0,3343,en_2649_34487_1962312_1_1_1_1,00.html [access 20 February 2010]
- ¹² World Health Organization. *World Health Statistics* 2008. Geneva, WHO, 2008.
- ¹³ Van Doorslaer E, O'Donnell O, Rannan-Eliya RP, Somanathan A, Adhikari SR, Garg CC, Harbianto D, et al. Catastrophic payment for health care in Asia. *Health Economics* 2007; 16:1159-1184.
- ¹⁴ Lane C. Scaling up for better health in Cambodia. A case study for World Health Organization in follow-up to the High-Level Forum on the Health Millennium Development Goals. Geneva: World Health Organization, 2007.

-
- ¹⁵ Taskforce on Innovative International Financing for Health Systems. (2009) Constraints to Scaling Up and Costs. Working Group 1 Report. Geneva: World Health Organisation
- ¹⁶ PhilHealth. Conference on extending social health insurance to informal economy workers, 18-20 October 2006, synthesis report January 2007. Manila. PhilHealth, GTZ, ILO, WHO, and World Bank, 2007
- ¹⁷ Akashi H, Yamada T, Huot E, Kanal K, Sugimoto T: User fees at a public hospital in Cambodia: effects on hospital performance and provider attitudes. *Social Science and Medicines* 2004; 58: 553-564
- ¹⁸ Jacobs B, Price N: The impact of the introduction of user fees at a district hospital in Cambodia. *Health Policy and Planning* 2004; 19: 310-321
- ¹⁹ Bureau of Health Economics and Financing. Annual Health Financing Report 2008. Phnom Penh, Cambodia, Ministry of Health; 2009
- ²⁰ Hardeman W, Van Damme W, Van Pelt M, Por I, Kimvan H, Meessen B: Access to health care for all? User fees plus a Health Equity Fund in Sotnikum, Cambodia. *Health Policy and Planning* 2004; 19: 22-32
- ²¹ Jacobs B, Price N: Improving access for the poorest to public sector health services: insights from Kirivong Operational Health District in Cambodia. *Health Policy and Planning* 2006; 21: 27-39.
- ²² Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B, Thor R et al.: Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia. *Health Policy and Planning* 2007; 22: 246-262.
- ²³ Ir P, Bigdeli M, Meessen B, Van Damme W. Translating Knowledge into Policy and Action to Promote Health Equity: the Health Equity Fund Policy Process in Cambodia 2000-2008. *Health Policy*; 2010. In Press
- ²⁴ Patcharanarumol W, Mills A, Tangcharoensathien V. Dealing with the cost of illness: The experience of four villages in Lao PDR. *Journal of International Development* 2009; 21: 212-230.
- ²⁵ Claudia Rokx et al [check full authors]. *Health Financing in Indonesia: A Reform Roadmap*. Washington D.C.: World Bank, 2009.
- ²⁶ Nitayarumphong S, Pannarunothai S. Achieving universal coverage of health care through health insurance: the Thai situation. In: Nitayarumphong S, Mills A, eds. *Achieving universal coverage of health care*. Bangkok: Office of Health Care Reform, Thailand Ministry of Public Health, 1998.
- ²⁷ Gilson L, Russell S, Ruyajin O, Boonchote T, Pasandhanathorn V. *Exempting the Poor : a Review and Evaluation of the Low Income Card Scheme in Thailand*. London: London School of Hygiene and Tropical Medicine, PHP Departmental Publication No.30 1998.
- ²⁸ Pannarunothai S, Mills A., The poor pay more: health-related inequality in Thailand. *Social Science and Medicine* 1997; 44: 1781-1790

-
- ²⁹ Langenbrunner JC, Cashin C, O' Dougherty S. Designing and Implementing Health Care Provider Payment Systems How-To Manuals (eds). Washington DC: The International Bank for Reconstruction and Development / The World Bank; 2009
- ³⁰ National Statistical Coordinating Board. *2008 Philippine Statistical Yearbook*. Manila: NSCB, 2008.
- ³¹ World Health Organization. *National Health Accounts, Estimates for the Philippines (2009)* accessed online on January 26, 2009 from www.who.int/nha/country/ph/en
- ³² World Bank. Philippines: Fostering More Inclusive Growth. Report No. 49482-PH, Washington DC July 2010
- ³³ Department of Health. Health Sector Reform Agenda Monograph no. 9, Bridging to Future Reforms, DOH, Manila, Philippines, 2010.
- ³⁴ Tangcharoensathien V, Supachutikul A, Lertiendumrong J. The Social Security Scheme in Thailand: what lessons can be drawn? *Social Science and Medicine* 1999; 48: 913-23
- ³⁵ Mills, A., Bennett, S., Siriwanarangsun P., Tangcharoensathien V. The Response of providers to capitation payment: a case-study from Thailand. *Health Policy* 2000; 51: 163-180
- ³⁶ Prakongsai P, Limwattananon S, Tangcharoensathien V. The Equity impact of the universal coverage policy: lessons from Thailand. In Dov Chernichovsky and Kara Hanson (eds). *Innovations in health system finance in developing and transitional economies*, 57-81. London: The Emerald Group Publishing Limited, 2009.
- ³⁷ Kwon S. Payment system reform for health care providers in Korea. *Health Policy and Planning* 2003; 18: 84-92
- ³⁸ Tangcharoensathien V. *Community Financing: the urban health Card in Chiangmai, Thailand*. Unpublished doctoral thesis. University of London, London School of Hygiene and Tropical Medicines, 1990.
- ³⁹ Tangcharoensathien V, Teokul W, Chanwongpaisarn L. Challenges of implementing universal health care in Thailand. in Kwon HJ (editor). *Transforming the Developmental Welfare State in East Asia*. UNRISD publication. Palgrave Macmillan, 2005
- ⁴⁰ Pannarunothai S, Srithamrongsawat S, Kongpan M, Thumvanna P. Financing reforms for the Thai health card scheme. *Health Policy and Planning* 2000; 15: 303-311
- ⁴¹ Tangcharoensathien V, Prakongsai P, Limwattananon S, Patcharanarumol W, Jongudomsuk P. From targeting to Universality: lessons from the health system in Thailand (Chapter 16). In Townsend P (editor). *Building decent societies: rethinking the role of social security in development*, 310-322. Houndmills, Basingstoke, Hampshire : Palgrave Macmillan, 2009.
- ⁴² National Statistics Office. *The 2008 National Demographic and Health Survey results*. Manila: NSO, 2010
- ⁴³ Thai working group on National Health Account. *The report on 1994-2008 National Health Expenditure*. Nonthaburi, International Health Policy Program, Ministry of Public Health, 2010 http://www.ihppthaigov.net/nha/thai_nha_1994-2008.xls access 20 February 2010

-
- ⁴⁴ Somkotra T, Lagrada L. Payments for health care and its effect on catastrophe and impoverishment: Experience from the transition to universal coverage in Thailand. *Social Science & Medicine* 2008; 67: 2027–2035.
- ⁴⁵ Limwattananon S., Tangcharoensathien V., Prakongsai P. Catastrophic and poverty impacts of health payments: results from national household surveys in Thailand. *Bulletin of the World Health Organization* 2007; 85: 600–606.
- ⁴⁶ International Health Policy Program. Effectiveness of public health insurance schemes on financial risk protection: the assessments of purchasers' capacities, contractors' responses and impact on patients. Research report, Consortium on Research into Equitable Health Systems. Nonthaburi, Ministry of Public Health, 2010
- ⁴⁷ Yu CP, Whynes DK, Sach TH. Equity in Healthcare financing: The case of Malaysia. *International Journal for Equity in Health* 2008; 7:1-14
- ⁴⁸ Yu CP, Whynes DK and Sach TH. Assessing progressivity of out-of-pocket payment: with illustration to Malaysia. *Int J Health Plann Manage.* 2006; 21:193-210.
- ⁴⁹ Chee H. L. Ownership, control, and contention: Challenge for the future of healthcare in Malaysia. *Social Science & Medicine*, 2008; 66: 2145-2156
- ⁵⁰ Nor Hayati I, Azimatun NA, Rozita H, Sharifa Ezat WP, Rizal AM. In-Patients' Satisfaction In The Medical And Surgical Wards – A Comparison Between Accredited And Non Accredited Hospital In The State Of Selangor. *Journal of Community Health* 2010; 16: 60-68
- ⁵¹ Sharifa Ezat WP, Jamsiah M, Aniza I, Suryati AA. Client Satisfaction and Relationship with ISO Certification Status in Negeri Sembilan's Health Clinics. *Journal of Community Health* 2008; 13:11-21.
- ⁵² James CD, Hanson K, McPake B, Balabanova D, Gwatkin D, Hopwood I et al. To retain or remove user fees?: reflections on the current debate in low- and middle-income countries. *Applied Health Economics and Health Policy* 2006; 5: 137-153
- ⁵³ Philippines Health Insurance Corporation. PhilHealth Board resolution 1,113 April 30, 2008 and 2008 PhilHealth Annual Report
- ⁵⁴ Xu K, Evans D, Carrin G, Aguilar A, Musgrove P, Evans T. Protecting households from catastrophic health spending. *Health Aff (Millwood)* 2007; 26: 972-83.
- ⁵⁵ Wagstaff A. Social Health Insurance Reexamined. World Bank Policy Research Working Paper 4111, January 2007
- ⁵⁶ Tangcharoensathien V, Wibulpolprasert S, Nitayarampong S. Knowledge-based changes to health systems: the Thai experience in policy development. *Bulletin of the World Health Organization* 2004; 82: 750-756
- ⁵⁷ Green A. Reforming the health sector in Thailand: the role of the policy actors on the policy stage. *International Journal of Health Planning and Management* 2000; 15: 39-59

References

- ⁵⁸ Patcharanarumol W, Mills A, Tangcharoensathien V. Dealing with the cost of illness: The experience of four villages in Lao PDR. *Journal of International Development* 2009; 21: 212-230.
- ⁵⁹ Rohaizat Yon. Health Care Financing In Malaysia: Future Trends. In: S Mohamed Aljunid, Nabilla AA Mohsein, editors. *Health Economics Issues In Malaysia (Chapter 5)*. University of Malaya Press. Kuala Lumpur. 2002: 87-112.
- ⁶⁰ Rohaizat Yon, CYS Lin, Mahani Hamidy. Evaluation of the Seventh Malaysia Plan: A New Approach. *Asia-Pacific J Public Health*. 2001;13: 54-8.
- ⁶¹ Sharifa Ezzat WP , Azimatun NA, Jasmin NM and Aljunid S. Waiting times for elective orthopaedic surgeries in a teaching hospital and their influencing factors. *Medicine and Health* 2009; 4: 53-60.
- ⁶² Hardeman W, Van Damme W, Van Pelt M, Por I, Kimvan H, Meessen B: Access to health care for all? User fees plus a Health Equity Fund in Sotnikum, Cambodia. *Health Policy and Planning* 2004; 19: 22-32
- ⁶³ Jacobs B, Price N: Improving access for the poorest to public sector health services: insights from Kirivong Operational Health District in Cambodia. *Health Policy and Planning* 2006; 21: 27-39.
- ⁶⁴ Noirhomme M, Meessen B, Griffiths F, Ir P, Jacobs B, Thor R et al.: Improving access to hospital care for the poor: comparative analysis of four health equity funds in Cambodia. *Health Policy and Planning* 2007; 22: 246-262.
- ⁶⁵ Carrin G, Mathauer I, Xu K, Evans D. Universal coverage of health services: tailoring its implementation. *Bulletin of the World Health Organization* 2008; 86:857-63