

HEALTH EQUITY AND FINANCIAL PROTECTION IN ASIA

**POLICY BRIEF**

# EVIDENCE FOR UNIVERSAL HEALTH COVERAGE





Good evidence on interventions that aim to extend coverage and ensure that effective medical care can be accessed without threatening household financial security can quicken the pace of progress toward Universal Health Coverage (UHC). The HEFPA project evaluates policies with these goals in six countries in East and Southeast Asia.

Findings suggest that even when heavily subsidised, voluntary insurance is unlikely to bring coverage close to universality. When accomplished, increased coverage generally raises the utilisation of healthcare, but does not necessarily reduce the burden of household medical expenditures. The impact on out-of-pocket (OOP) payments depends on the design of provider payments, as well as the benefit package, respectively offering incentives for the delivery and utilisation of expensive treatments that are made affordable by insurance, but still only partially covered. Provider incentives may be just as important to securing access to appropriate treatment and financial protection as the extension of coverage itself.

This brief highlights the main findings of various HEFPA studies and identifies some common messages relevant to the UHC agenda that emerge.

#### PROJECT CONSORTIUM





## DO PREMIUM SUBSIDIES RAISE INFORMAL SECTOR COVERAGE?

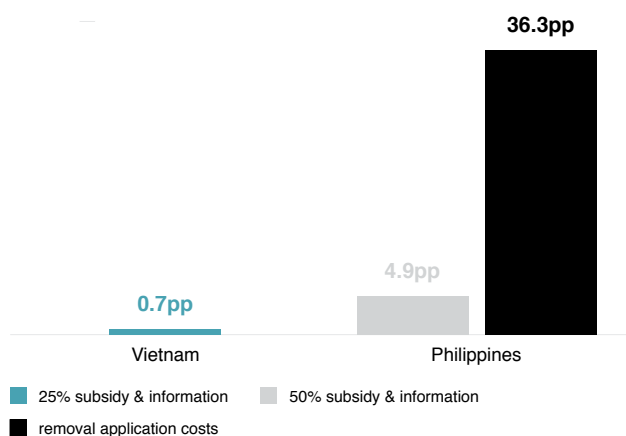
Extension of coverage to populations reliant on the informal labour market – which in Asia remains stubbornly large, despite impressive economic growth – is possibly the greatest challenge to the achievement of UHC. Most countries are either unwilling, or find it economically infeasible, to follow Thailand's example of using general government revenue to finance coverage of the entire informal sector. Indonesia, the Philippines and Vietnam are attempting to combine tax-financed coverage of the poor and certain demographic groups with voluntary enrolment in social health insurance of the non-poor not covered through formal sector employment. Succeeding in this strategy requires the acquisition and utilisation of a good understanding of the factors that motivate people to insure, or not.

Two randomised experiments conducted by HEFPA in the Philippines and Vietnam reveal that subsidisation of premia by as much as 50 per cent, along with the provision of information on the operation and benefits of insurance, is insufficient to bring enrolment rates anywhere close to the realisation of universal coverage.

In Vietnam, despite affordability being reported as the main reason for not purchasing insurance, a 25 per cent premium subsidy, either exclusively or in combination with information promoting the benefits of insurance, had no impact on uptake.<sup>1</sup>

In the Philippines, a larger subsidy of up to 50 per cent combined with a more detailed information package and the sending of SMS reminders encouraging enrolment succeeded in raising take-up by five percentage points.<sup>2</sup> However, this lifted coverage to only 15 per cent. At-home assistance with completion of the insurance application form and arrangement for its delivery to the insurer's office also succeeded in raising enrolment, this time by a substantial 36 percentage points. But even after being offered a 50 per cent subsidy and removal of registration costs, three-fifths of the target group declined to enrol.

### EFFECTS OF INTERVENTIONS TO INCREASE INFORMAL SECTOR SOCIAL HEALTH INSURANCE ENROLMENT (IN PERCENTAGE POINTS)



In both countries, a substantial share of the informal sector population appears to be unconvinced of the gain from purchasing health insurance, even at a greatly subsidised price. Administrative changes that can reduce the non-premium costs of enrolment should certainly be more widely considered, but rather than further reducing the price and/or publicising the benefits of a given insurance package, it would seem essential to raise the value of the product. There is frequently scepticism of the quality of health services that can be accessed through public insurance. Moreover, its impact on OOP spending can be muted by operation of a reimbursement ceiling combined with the freedom of providers to set prices above this, which erodes the financial protection against medical expenditure risks that insurance is intended to provide.

Coverage is not the ultimate goal. Rather it is a means towards improving population health through access to effective medicine, as well as insuring household finances against medical expenses. How effective is coverage in meeting these objectives?



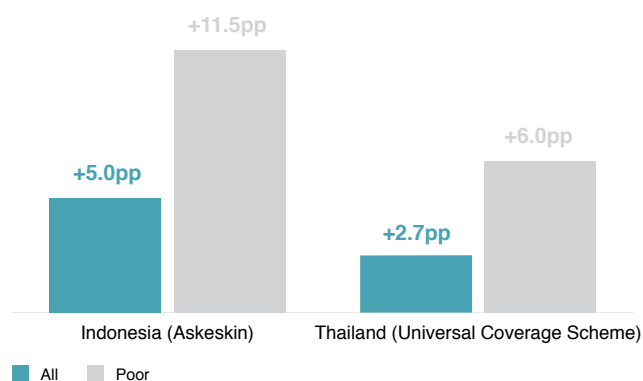


## Q WHAT IS THE IMPACT OF COVERAGE ON HEALTHCARE UTILISATION?

HEFPA studies conducted in a number of countries tend to confirm that increased insurance coverage does raise the utilisation of healthcare. But it is not simply the extension of coverage to a larger proportion of the population that is critical. The depth and structure of coverage, as well as its means of acquisition, also appear to be relevant.

After the relatively straightforward – and presumably politically expedient – task of covering formal sector employees, and often their dependents, attention tends to turn to subsidised coverage of the poor. Indonesia achieved this in 2005, through a fully tax-financed programme initially referred to as Askeskin, which has continued from 2008 under the name of Jamkesmas. HEFPA research reveals that on average, Askeskin raised the probability of accessing outpatient care by five percentage points, and the impact on the poor was more than double that.<sup>3</sup> Utilisation of inpatient care was also increased. While the poor and near-poor were the main beneficiaries, the research reveals considerable leakage to the non-poor.

### PUBLIC INSURANCE RAISES PROBABILITY OF OUTPATIENT TREATMENT (EFFECTS IN PERCENTAGE POINTS)



Targeting subsidies on the poor can cause administrative headaches. HEFPA research carried out in Cambodia suggests that the cost of identifying the poor does not always pay off. Irrespective of whether they are targeted towards the poor, vouchers offered for safe motherhood services at public health centres are found to have significantly raised the probability of poor women delivering in a facility, with no significant impact on non-poor women.<sup>4</sup> In fact, the impact on the poor is greater when the vouchers are universal. In this low-income context, targeting may be unnecessary given that even a full subsidy is unlikely to induce women who can afford to deliver in a private clinic to switch to a public health centre.

Target inefficiency of means-tested subsidised coverage was one factor that contributed to the decision taken in Thailand to attempt tax-financed universal coverage in 2001. A HEFPA evaluation of the landmark Thai UHC



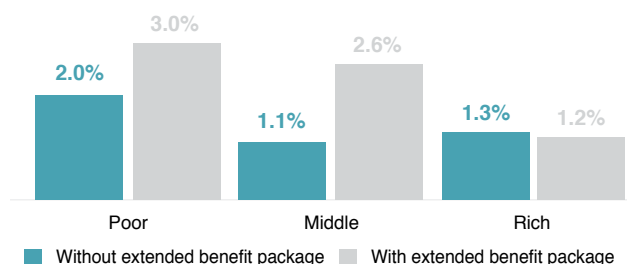
reform reveals that it reduced the probability of forgoing formal ambulatory treatment when sick by 3.2 percentage points (or around one tenth) and raised the probability of inpatient admission by one point (almost one fifth).<sup>5</sup>

The impacts are even larger among the poor and elderly – both populations that were covered, in principle, under the welfare scheme that operated prior to UHC. Most likely this reflects both deficiencies in targeting and the deepening of coverage made possible by doubling real health spending over the decade following the reform. There may also be an effect of universal entitlement reducing any stigma of seeking public care through what might previously have been considered the ‘poor man’s scheme’.

Further evidence of deeper coverage raising utilisation of both outpatient and inpatient care is provided by a study conducted in China that exploits variation in the generosity of cover offered by the New Cooperative Medical Scheme (NCMS) across districts in Ningxia – a poor north western province – and Shandong – a much more developed province on the east coast.<sup>6</sup> Experience with the NCMS also demonstrates that the pattern of healthcare utilisation can be sensitive to the structure of insurance. Initially, NCMS primarily covered inpatient care. This, in combination with incentives arising from fee-for-service payment of providers and shallow coverage of the insured, potentially exposed patients to the risk of receiving inappropriately invasive treatment with high associated OOP expenses.

A HEFPA experiment conducted in Ningxia redesigned the NCMS benefit package to increase relative coverage of outpatient services, particularly those delivered at primary care facilities.<sup>7</sup> As a result, receipt of ambulatory care at village clinics increased by around 50 per cent, but there is no evidence of substitution from higher to lower level facilities, or from inpatient to outpatient treatment, except among the poorest.

#### PROBABILITY OF VISIT TO VILLAGE CLINIC BY WEALTH TERTILE



The evidence emerging from HEFPA suggests that both the level and the pattern of healthcare utilisation depend on who and what is covered. But access to healthcare is not contingent only on demand-side parameters. The project also finds that how providers are paid and managed is highly relevant to what coverage delivers.

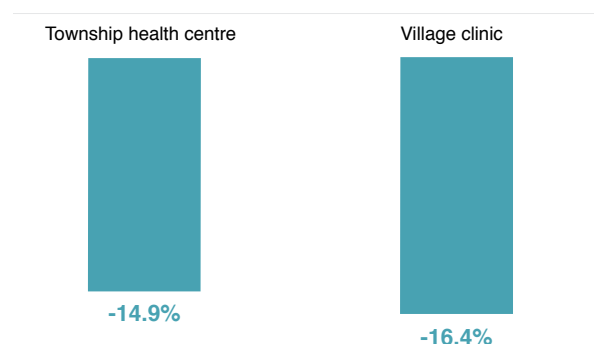


## Q HOW CAN PROVIDER INCENTIVES BE ALIGNED WITH UHC GOALS?

UHC aims to ensure that effective medical care can be accessed by all without placing undue strain on household finances. Public insurance will not succeed in achieving this if the method of paying providers does not motivate provision of appropriate care, and perhaps even encourages overprovision of partially insured treatments of dubious medical efficacy that burden household budgets.

A HEFPA experiment conducted in Ningxia finds that moving from fee-for-service (FFS) to capitation plus pay-for-performance (P4P) resulted in more appropriate prescribing behaviour, reducing the probability of antibiotics being issued by about six percentage points, equivalent to a relative decrease of around 15 per cent.<sup>8</sup>

#### IMPACT ON PROBABILITY OF PRESCRIBING ANTIBIOTICS DUE TO CHANGE FROM FFS TO CAPITATION & P4P PROVIDER REIMBURSEMENT IN NINGXIA



In Vietnam, HEFPA finds that replacing FFS with capitation payment of hospitals by the public insurer resulted in cost savings on the provision of care to insured patients, but hospitals compensated by increasing provision to the uninsured.<sup>9</sup> The latter may have had positive effects on health outcomes if the uninsured were previously being underserved, but paying for the additional treatment could push already fragile household finances to the margins of poverty. There is also evidence from Vietnam that granting hospitals greater autonomy, including wider scope in the utilisation of surpluses from user fees, has resulted in higher household OOP spending.<sup>10</sup>

Attuning provider incentives with the goals of access and affordability is clearly necessary to ensure that extensions of public health insurance have the intended effects.

# MEASUREMENT OF HEALTHCARE INEQUITY AND FINANCIAL PROTECTION

The information gleaned from monitoring of health equity and financial protection across and within countries is contingent on the richness and validity of the indicators employed. HEFPA has yielded methodological innovations in the measurement of inequity in the utilisation of healthcare and of catastrophic medical expenditure risk.

A new measure makes explicit inequity that derives from the unequal treatment response to variation in medical need.<sup>11</sup> Previously employed instruments are likely to have underestimated pro-rich inequity. This is confirmed using data from Bangladesh, India, Malaysia and the Philippines. In those countries, around one half of the socioeconomic inequality is due to utilisation being more responsive to need among higher wealth and urban-dwelling individuals.

Previous measures identify the average risk of incurring catastrophic health payments in a population. HEFPA has developed a measure of risk exposure at the household level and the associated welfare loss.<sup>12</sup> This measure can be used to identify the households that would gain most from the provision of catastrophic health insurance. Across seven Asian countries, medical expenditure risk is found to be highest in Laos and China, and lowest in Malaysia. Exposure to risk is generally higher for households that have less recourse to self-insurance, lower incomes, wealth and education, and suffer from chronic illness.

## Q WHAT IS THE IMPACT OF COVERAGE ON OUT-OF-POCKET PAYMENTS?

HEFPA research reveals that, perhaps contrary to expectations, increased coverage does *not* always reduce OOP spending on medical care. Depending on the composition of the benefit package and the structure of coinsurance, insurance can reduce the relative price of higher level, more expensive treatments, inducing substitution away from cheaper options. Combined with incentives providers may have to deliver high cost care, this can mute the impact on OOP payments and even result in a rise in uninsured expenditures.

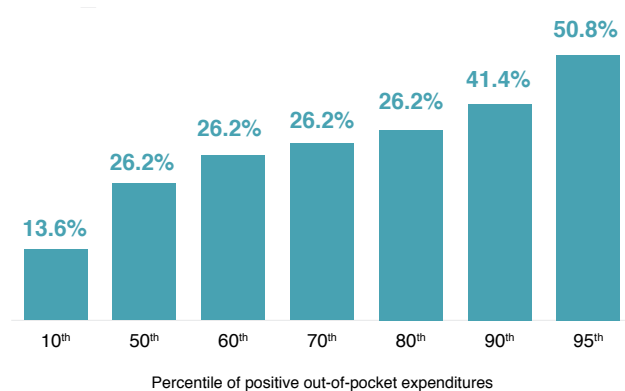
The Askeskin programme of tax-financed care for the poor in Indonesia did not reduce households' medical expenditures.<sup>3</sup> OOP payments even increased among the target urban population. This surprising result may derive from the very low initial level of spending on healthcare among the poor. By making care more affordable – particularly inpatient treatment, which the insurer pays for by FFS – it is possible that spending rises as less needed care is forgone.

The tremendous expansion and deepening of NCMS coverage in rural China, arising from a tripling of the subsidy between 2008 and 2012, provides further evidence that insurance need not reduce OOP spending. In Ningxia and Shandong, more generous coverage is found to raise the OOP spending on an inpatient stay and has no significant effect on the expenditures made for an outpatient visit.<sup>6</sup> The interaction of insurance design with provider incentives may be responsible. The experiment conducted in Ningxia finds that extending coverage to ambulatory care and raising reimbursement for treatment at primary facilities above that for treatment at secondary and tertiary facilities reduced the prevalence of catastrophic payments from one-third to less than a quarter.<sup>7</sup>

Provision of a near comprehensive benefit package with only a modest copayment, which was dropped entirely after four years, made it likely that the Thai UHC reform would reduce OOP payments provided that effective care could be delivered from a tight budget. The HEFPA evaluation finds OOP payments were reduced by one third, on average.<sup>5</sup> The share of households incurring catastrophic payments was decreased by two percentage points, or about one third, and spending at the 95<sup>th</sup> percentile of the OOP distribution was reduced by half, indicating greatly reduced exposure to devastatingly high medical expenses.



## REDUCTION IN OUT-OF-POCKET EXPENDITURE AT PERCENTILES DUE TO UCS, THAILAND



Health Equity Funds (HEF), which are administered by NGOs and compensate public providers for waiving the fees of poor patients in Cambodia, demonstrate the potential to increase the financial protection offered to poor patients in extremely constrained settings. HEFPA finds that HEFs reduce OOP payments by 35 per cent on average across households with medical expenses, with an even greater impact on the poorest.<sup>13</sup>

## Q WHAT GENERAL LESSONS CAN BE DRAWN FROM THE HEFPA EVIDENCE?

Caution is called for in any attempt to draw general conclusions from a set of studies that differ in aims and context. Nevertheless, a few points deserve emphasis.

The impacts of changes in coverage on healthcare utilisation and OOP payments depend on the comprehensiveness of the benefit package, changes in the relative prices of high and low cost treatments, co-insurance rates and the method of paying providers. If increased coverage raises utilisation of more effective, and now more affordable, treatments, then wellbeing may be raised even if households are paying as much OOP as they were before. But if patients are being encouraged to make frivolous, inappropriate use of high cost treatment options that could be substituted by more cost-effective alternatives, then a restructuring of insurance and/or provider payment methods could reduce OOP payments with little or no loss of health.

Aligning demand and supply side incentives to ensure that social insurance offers access to effective medical care and financial protection from medical expenditure risk may be what it takes to encourage the informal sector to enrol.

The evidence from the project is offered in the hope that it may motivate and inform policy actions that can better secure health equity and financial protection in Asia.

## COPING WITH THE ECONOMIC CONSEQUENCES OF ILLNESS

Spreading the economic burden of illness across the population is a major motivation behind the drive for UHC. HEFPA has examined the economic consequences of illness, and studied how households cope with these in the absence of comprehensive insurance, in a number of Asian countries.<sup>14-18</sup> The extent to which, and how, households protect their consumption when hit by a health shock varies across countries.

One important, near-common finding is that income losses arising from ill-health tend to impose a larger economic burden, which is sustained for longer, than medical expenses. In part, this may be because poor households forgo needed, but unaffordable, healthcare. But it also reflects the near absence of sickness and disability insurance coverage of the majority of the populations of low and middle income Asian countries. Ambitious as it is, UHC is only one item on the social protection agenda. Providing disability insurance in economies in which informal sector employment remains high will be even more of a challenge.





# REFERENCES

- <sup>1</sup> Wagstaff A, Nguyen HTH, Dao H, Bales S, 'Encouraging Health Insurance for the Informal Sector: A Cluster Randomized Trial', unpublished MS: The World Bank (see also *HEFPA Paper P1*, Erasmus University Rotterdam).
- <sup>2</sup> Capuno JJ, Kraft AD, Quimbo SA, Tan CAR Jr, Wagstaff A, 'Effects of Interventions to Raise Voluntary Enrollment in a Social Health Insurance Scheme: A Cluster Randomized Trial', unpublished MS: The World Bank (see also *HEFPA Paper P2*, Erasmus University Rotterdam).
- <sup>3</sup> Sparrow R, Suryahadi A, Widyanti W (2013), 'Social Health Insurance for the Poor: Targeting and Impact of Indonesia's Askeskin Program', *Social Science and Medicine* 96: 264-271.
- <sup>4</sup> Van de Poel E, Flores G, Ir P, O'Donnell O, Van Doorslaer E, 'Can Vouchers Deliver: An Evaluation of Subsidies for Maternal Health Care in Cambodia', *Bulletin of the World Health Organization*, (forthcoming).
- <sup>5</sup> Limwattananon S, Neelsen S, O'Donnell O, Prakongsai P, Tangcharoensathien V, van Doorslaer E, Vongmongkol V, 'Universal Coverage on a Budget: Impacts on Health Care Utilization and Out-Of-Pocket Expenditures in Thailand', *HEFPA Working Paper 14*, Erasmus University Rotterdam.
- <sup>6</sup> Hou Z, Van de Poel E, Van Doorslaer E, Yu B, Meng Q, 'Effects of NCMS on access to care and financial protection in China', *Health Economics* (first published online: 2013 Aug 23. DOI: 10.1002/hec.2965).
- <sup>7</sup> Powell-Jackson T, Yip W, Han W, 'Re-aligning demand- and supply- side incentives to improve primary health care seeking in rural China', *HEFPA Paper P5*, Erasmus University Rotterdam.
- <sup>8</sup> Yip WCM, Powell Jackson T, Chen W, Hu M, Fe E, Hu M, Jian W, Lu M, Han W, Hsiao WC, 'Capitation with pay-for-performance improves primary care providers' antibiotic prescribing practices in rural China', *HEFPA Paper P3*, Erasmus University Rotterdam.
- <sup>9</sup> Nguyen HTH, Bales S, Wagstaff A, Dao H, 'Getting Incentives Right: An Impact Evaluation of a District Hospital Capitation Payment Scheme in Vietnam', Policy Research Working Paper 6709, The World Bank (see also *HEFPA Working Paper 17*, Erasmus University Rotterdam).
- <sup>10</sup> Wagstaff A, Bales S, 'The Impact of Public Hospital Autonomization – Evidence from a Quasi-Natural Experiment', Policy Research Working Paper 6137, The World Bank (see also *HEFPA Working Paper 12*, Erasmus University Rotterdam).
- <sup>11</sup> Van de Poel E, Van Doorslaer E, O'Donnell O (2012), 'Measurement of Inequity in Health Care with Heterogeneous Response of Use to Need', *Journal of Health Economics* 31: 676-689.
- <sup>12</sup> Flores G, O'Donnell O, 'Catastrophic Medical Expenditure Risk', *HEFPA Working Paper 11*, Erasmus University Rotterdam.
- <sup>13</sup> Flores G, Ir P, Men CR, O'Donnell O, Van Doorslaer E (2013), 'Financial Protection of Patients through Compensation of Providers: The Impact of Health Equity Funds in Cambodia', *Journal of Health Economics* 32(6): 1180-93.
- <sup>14</sup> Sparrow R, Van de Poel E, Hadiwidjaja G, Suryahadi A, Warda N, Yumna A, 'Coping with the Economic Consequences of Ill Health in Indonesia', *Health Economics* (first published online: 8 July 2013, DOI: 10.1002/hec.2945).
- <sup>15</sup> Wagstaff A, Lindelow M, 'Are health shocks different? Evidence from a multishock survey in Laos', *Health Economics* (first published online: 13 June 2013, DOI: 10.1002/hec.2944).
- <sup>16</sup> Neelsen S, Limwattananon S, Tisayaticom K, O'Donnell O, van Doorslaer E, 'Economic consequences of illness with health insurance but without disability insurance', *HEFPA Working Paper 19*, Erasmus University Rotterdam.
- <sup>17</sup> Bales S, 'Impact of health shocks on household welfare in Vietnam – Estimates using fixed effects estimation', *HEFPA Working Paper 18*, Erasmus University Rotterdam.
- <sup>18</sup> Kraft AD, Capuno JJ, Quimbo SA, Tan CAR Jr, Wagstaff A, 'Coping and Consumption Adjustment for Similar Shocks over Time', unpublished MS: The World Bank (see also *HEFPA Working Paper 21*, Erasmus University Rotterdam).

# PROJECT IDENTITY

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- World Bank Development Research Group** <http://econ.worldbank.org/>

## FURTHER INFORMATION

**Duration:** June 2009 – December 2013

**Funding:** EU Seventh Framework Programme (FP7) – contract no 223166

**Project website:** HEFPA working papers and publications are available at [www.hefpa.nl](http://www.hefpa.nl)

