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The challenge of extending universal coverage to non-poor informal workers in low- and middle-income countries in Asia

IMPACTS AND POLICY OPTIONS





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The challenge of extending universal coverage to non-poor informal workers in low- and middle-income countries in Asia: impacts and policy options

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List of abbreviations

CBHI	community-based health insurance
IPP	Individual Payer Programme (Philippines)
JKN	Jaminan Kesehatan Nasional (Indonesia)
LMICs	low- and middle-income countries
NHIS	National Health Insurance Scheme (Ghana)
SEWA	Self-Employed Women's Association (India)
SHI	social health insurance
UHC	universal health coverage
VHCS	Voluntary Health Card Scheme (Thailand)
WHO	World Health Organization



I. Policy Brief

What is the problem?

In pursuing the goal of universal coverage, governments and policy-makers in low- and middle-income countries (LMICs) in Asia face a particular challenge in providing access to health services for non-poor informal workers through some form of prepayment (Tangcharoensathien et al., 2011; Lagomarsino et al., 2012). There is general recognition that providing coverage for the poor requires tax-funded subsidies, and many governments have begun to implement social health insurance (SHI) for the formally employed. Only a few LMICs have found the means to cover non-poor informal workers (Langenbrunner and Somanathan, 2011).

Informal workers have been defined as those outside formal employment, comprising all those employed informally whether in the formal, informal or household sectors (Bitran, 2014). Our special concern here is with the coverage of informal workers who are above the poverty line, that is, non-poor informal workers.

In principle, universal coverage means providing financial protection to the whole population. In practice, universal coverage cannot be achieved at once, but involves progress along a path towards achieving full population coverage (Kutzin, 2013). This is especially true in low- and middle-income countries, where resources are constrained and per capita health expenditures are low. Universal coverage requires the introduction of some form of prepayment for health service charges. Prepayment mechanisms have been defined as a means of distributing the financial risk associated with different individuals' health-care expenditures over time and across populations (Acharya et al., 2012).

The implementation of prepayment mechanisms for non-poor informal workers in LMICs is a relatively new policy area, with many unresolved issues (Acharya et al., 2013). Questions being raised are whether compulsory

schemes such as social health insurance (SHI) are effective in covering non-poor informal workers, whether voluntary schemes such as community-based health insurance (CBHI) can be used to scale-up coverage of non-poor informal workers, and whether complete subsidization of non-poor informal workers can create perverse incentives for remaining in or moving into informal employment (Bitran, 2014).

Here, we review the published and grey literature detailing the experience in LMICs, primarily in Asia but also with examples from Africa. The early research for this policy brief focused on primary studies in seven countries: China, Ghana, Indonesia, the Philippines, Rwanda, Thailand and Viet Nam. The two African countries were included as they had pursued policies of particular relevance to the Asian nations. The experience of providing coverage of the non-poor informal sector is most comprehensively described and best captured in the literature for these seven countries. This information was supplemented by a broader reading of secondary sources.

In general, different countries have begun the journey towards universal coverage in different ways. In some countries (like India, Lao People's Democratic Republic and Viet Nam), the first step was to establish SHI programmes with compulsory salary deductions for civil servants and private sector employees, that is, the formal sector. In other countries (like Cambodia) the first step has been to establish donor- and tax-based subsidies to provide access to health services for the poor (social insurance schemes for the formal sector have been established in Cambodia but do not yet operate to provide health benefits).

A few LMICs have been able to extend coverage to non-poor informal workers, particularly China and Thailand, in each case using a tax-funded or heavily subsidized approach.

Prepayment mechanisms

Prepayment mechanisms may be contributory (where the beneficiary pays a premium in some form) or non-contributory (funded from a source other than a beneficiary payment). Membership and payment may be mandatory (a salary deduction or tax payment) or voluntary (beneficiary payment to a CBHI scheme, to a social insurance scheme, or to a private insurer). Generally, contributory schemes are appropriate for formally employed workers, and non-contributory schemes for the poor. The main categories of prepayment as they relate to three main population sectors – formally employed workers, non-poor informal workers and the poor – are summarized in Table 1.

Contributory schemes may be voluntary or mandatory but are not generally appropriate for the poor, who commonly have too little cash to meet regular payments. Such schemes may play some role in coverage of non-poor informal workers under certain conditions. Non-contributory schemes require funding from general or earmarked taxation and cannot be implemented through voluntary payments, and may therefore be considered as mandatory. The advantage gained from implementing non-contributory mechanisms is that they achieve higher coverage rates in a shorter time, as demonstrated by Thailand (Bates, 2012; Bates and Annear, 2013).

Table 1. General categories of prepayment for health care

Scheme	Population	Voluntary payment by the beneficiary	Mandatory payment or taxation
Contributory	<i>The poor</i>	n.a.	n.a.
	<i>Non-poor informal workers</i>	Opt-in SHI premium CBHI premium Private insurance premium	Salary deduction Social insurance premium
	<i>Formal sector</i>	Private insurance premium	Salary deduction Income tax levy
Non-contributory	<i>The poor</i>	n.a.	Citizenship right Tax-funded benefits
	<i>Non-poor informal workers</i>	n.a.	Compulsory premium Citizenship right Tax-funded benefits
	<i>Formal sector</i>	n.a.	Compulsory premium Citizenship right Tax-funded benefits

n.a. = not applicable, i.e. not effective due to the nature of the particular population group.

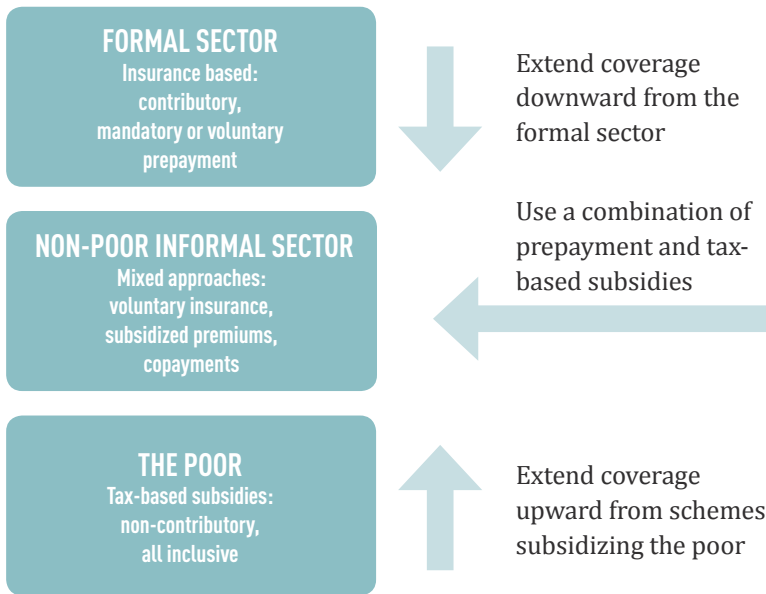
Source: Created by the authors for this brief

Approaches to coverage of non-poor informal workers

Within this context, approaches to coverage of non-poor informal workers vary depending on the political, economic or cultural context within each LMIC. In conceptual terms, there are three broad, practical approaches to providing coverage of non-poor informal workers: extend coverage downward from the formal sector; extend coverage upward from schemes subsidizing the poor; or use a combination of prepayment and tax-based subsidies. These three approaches are illustrated in Figure 1.

The critical questions are whether governments have a commitment to providing coverage universally, whether the fiscal space or capacity exists to enable governments to fund prepayment programmes, and whether the political leadership needed for the implementation of effective programmes exists. A supplementary question is what capacity non-poor informal workers may have to pay a contribution towards their own health care costs.

Figure 1: Approach to coverage of non-poor informal workers



Source: Asia Pacific Observatory

From the top down: compulsory premium or voluntary payment?

SHI schemes for the formal sector are generally contribution-based and funded by mandatory salary deductions from employers and employees (contributory schemes). In principle, these schemes could be extended to non-poor informal workers in three ways: applying the mandatory premium, allowing an opt-in voluntary premium, or providing a subsidized premium (full or partial).

Mandatory enrolment is one way to reduce the impact of adverse selection – whereby it is often only people who are ill who purchase insurance, thus making insurance schemes financially unviable (Kwon, 2009; Van der Gaag and Stimac, 2012) – but is extremely difficult to implement among non-poor informal workers. A study of contribution-based, compulsory enrolment of non-poor informal workers in Indonesia’s national health insurance scheme (the *Jaminan Kesehatan Nasional* or JKN), called the JKN *Mandiri* programme, revealed a low level of enrolment that did not significantly improve despite interventions that provided information, socialization, group enrolment, peer education and subsidized premiums (Jaminan Kesehatan Nasional et al., 2015). The study concluded that, without penalties, compulsory enrolment was difficult to enforce. The results were exclusively for rural workers and further research is planned in urban areas.

The Philippines began a transition from voluntary to mandatory enrolment for non-poor informal sector workers (with the poor fully subsidized by the Government) through the Individual Payer Programme (IPP) offered by Philippine Health Insurance Corporation (PhilHealth), the national SHI organization. While enrolment in the IPP was mandatory from 1999, lax enforcement has meant it is a de facto voluntary scheme. In Rwanda, membership of the national *mutuelles de santé* health insurance scheme for informal workers changed from being voluntary to being mandatory after 2006 along with strong sanctions applied to non-membership, which helped to increase coverage to more than 90% of the population.

The wider African experience suggests that while mandatory enrolment is more effective (compared with voluntary CBHI enrolment rates, for example) it applies almost exclusively to the formal sector (Chuma et al., 2013). Under the National Health Insurance Scheme (NHIS) in Ghana, formal sector workers contribute a mandatory premium (2.5% of salary) while a subsidized, flat but graduated annual premium of about US\$ 2–12 applies to informal sector workers, and the Government fully subsidizes premiums for the poor (Chuma et al., 2013). However, 61% of NHIS revenue comes from value added taxes (Schieber et al., 2012).

Allowing a voluntary opt-in premium payment (full or subsidized) may be an option. Previously, Thailand offered voluntary enrolment to non-poor informal workers with the Voluntary Health Card Scheme from 1991, but the programme failed due mainly to adverse selection and abuse of procedures. In the Philippines, the IPP attracted mainly the chronically ill and those with higher utilization rates than the average PhilHealth beneficiary (Tangcharoensathien et al., 2011). In Viet Nam, farmers and informal-sector workers (which includes the self-employed and wage employees without a contract or with a contract that runs less than three months), have the option to enrol in the national SHI scheme implemented by Viet Nam Social Security, but few do; coverage in 2012 was around 26% of this group in total and was much lower among farmers (Wagstaff et al., 2014).

More generally, voluntary schemes are associated with low enrolment, high drop-out rates and adverse selection, despite the fact that such schemes have commonly been subsidized to varying degrees. To make enrolment more attractive, a number of countries subsidize premium payments for non-poor informal workers, such as in Viet Nam, where opt-in premiums for SHI from non-poor informal workers are subsidized by 50% from taxation (Tangcharoensathien et al., 2011; World Bank, 2013). In Asia, Japan, and the Republic of Korea all provide partial subsidies to informal sector workers (see Box 1) (Kwon, 2011).

However, partial subsidies can be very difficult to implement because the incomes of non-poor informal workers are difficult to estimate, and the overhead costs of identifying members and collecting contributions can be high. The challenge is to find the means to collect contributions from those who have the ability to pay (McIntyre et al., 2013). For non-poor informal workers, planners must find a way to set premiums at a level that is low enough to encourage enrolment but not so low that the scheme will be financially unsustainable or cannot offer an attractive benefit package (Comrie-Thomson, 2012).

Box 1. The experience in Republic of Korea

Republic of Korea: extended SHI for the formal sector to non-poor informal workers – known as self-employed workers – in 1988, and merged all health insurance programmes into a single national agency, the National Health Insurance Corporation (NHIC), in 2000. Membership for non-poor informal workers was initially based on area of residence with premiums subsidized 50% by the Government. Now, however, only 17% of NHIC revenues come from taxation (Kwon, 2011).

From the bottom up: government subsidies

Schemes that provide coverage for the poor, subsidized from government revenues, may offer a social base (coverage of a large proportion of the total population) and an administrative apparatus (in the form of identification procedures and benefit distribution) for extending this coverage into the non-poor informal sector (Annear et al., 2013). This approach may therefore be more cost-effective than establishing a distinct contribution mechanism for non-poor informal workers.

Chuma and colleagues (2013) report that in Asia the level of coverage among those outside the formal sector depends on whether financial protection is offered through contributory insurance schemes or on a tax-funded basis. Countries with higher enrolment of non-poor informal workers either fully tax-finance their prepayment schemes (e.g. Thailand) or subsidize a large proportion of the beneficiary contribution rate. For the New Cooperative Medical Scheme (NRCMS), China subsidizes an average of 80% of premiums (Liu et al., 2015).

One approach is first to extend subsidized coverage of the poor to other vulnerable population groups – such as the elderly, children and/or school students (as in Viet Nam), women and children – or to particular services – such as primary care or maternal and child health care. At some point, subsidized coverage (full or partial) can be extended to all non-poor informal workers. In Thailand, where coverage is extended to all who fall outside the formal-sector schemes – that is, the poor and non-poor informal workers – coverage becomes a citizenship right or a right of national residence, funded through general taxation, though with a benefit package that is more limited than for formal sector schemes.

Thailand and other countries that have extended tax-based funding to non-poor informal workers have seen a rapid increase in population coverage in a way that is more progressive than SHI, which requires either a payment proportional to income or a flat rate premium (Kwon, 2009; Tangcharoensathien et al., 2011). However, the approach is pragmatic, requires considerable political support, and assumes that the fiscal space and capacity for funding subsidies are available.

The financial sustainability of non-contributory schemes that include a large proportion of the national population is the main challenge in LMICs. Countries that have successfully achieved financial sustainability, like Thailand, are middle-income countries with a reliable tax base. Even so, questions are being raised regarding the sustainability of the Thai model (JLN et al., 2013; McIntyre et al., 2013).

A concern associated with full subsidization of non-poor informal workers is whether subsidies can provide an incentive to individuals to maintain or move into informal-sector employment in order to avoid the health-related tax impositions (JLN et al., 2013; Bitran 2014). One study in Thailand found that the Universal Coverage Scheme (UCS) appeared to have encouraged employment especially among married women, to have increased informal-sector employment especially among married women, and to have reduced formal-sector employment among married men (with the largest effects found in the agricultural sector) (Wagstaff and Manachotphong , 2012). This question is unresolved and is still under discussion in the literature.

A combination of contributions and tax-based subsidies

Where the fiscal space or capacity for extending tax-based subsidies to non-poor informal workers exists, the most cost-effective way to extend coverage is through tax-based funding. Where the fiscal space or capacity does not exist, alternative approaches may be needed. These approaches may include some or all of the following interventions:

Voluntary contribution to an existing SHI scheme (Philippines, Viet Nam) may provide non-poor informal workers who want coverage the opportunity to pay for it. A key issue is the willingness and capacity to pay health insurance premiums and the risk of adverse selection.

To broaden coverage, governments may choose to subsidize premium payments by non-poor informal workers to an existing SHI scheme, perhaps on a sliding scale on the basis of income. However, there is evidence to suggest that partial premium subsidies are not effective in raising voluntary enrolment rates (Philippines, Viet Nam), and problems remain in assessing the incomes of non-poor informal workers for eligibility and in funding the high transaction costs associated with membership.

A randomized controlled trial in the Philippines showed that simplifying the enrolment process by providing help to families in completing the forms in the home, taking the forms to the SHI agency's office on behalf of the family, and having the identity card mailed to the family were far more effective measures than promising a premium subsidy (Capuno et al., 2014). Findings from a randomized controlled trial in 20 communes in each of two rural districts in Viet Nam indicated that there is limited scope for raising voluntary enrolment rates in established SHI schemes by providing additional, targeted information to potential beneficiaries about the insurance coverage offered and the benefits derived from it, as well

as partial subsidies for the cost of premiums for potential beneficiaries (Wagstaff et al., 2014).

In various cases, governments have chosen to subsidize premium payments to voluntary health insurance schemes. For the NRCMS – formally, a voluntary insurance scheme introduced between 2003 and 2008 and aimed at providing insurance to rural residents, though strongly enforced – China now subsidizes on average 80% of premiums through national and local government budgets (Liu et al., 2015).

Different governments have attempted to extend coverage through voluntary insurance schemes. Low coverage, the limited size of the risk pool, adverse selection and financial sustainability are all challenges confronted by voluntary insurance. In Thailand, the early voluntary health card scheme was later replaced by the UCS. The approach works best where there are clear economic, social and political incentives to make premium payments (as for Rwanda's *mutuelles de santé*).

A number of countries, most extensively in Africa, have implemented voluntary CBHI schemes. Generally, these schemes have suffered from low enrolment and adverse selection. Rwanda has the most successful national scheme, with high levels of coverage and an approach that now makes enrolment mandatory. In Asia, the Lao People's Democratic Republic has experimented with a national CBHI scheme since 2001 but has achieved an enrolment rate of only 5% of the target population (Ahmed et al., 2013). CBHI has a number of limitations, summarized briefly in Box 2.

In many countries, certain health programmes are provided free at the point of service. For example, vertical disease control programmes are implemented without patient charges and funded from budget or donor sources. Immunization, infectious disease control and HIV/AIDS control and treatment fall into this category. In a similar way, governments may choose to provide certain services free at the point of service and funded through taxation. Examples could include primary care services or maternal and child health services. In this way, budget constraints may not be breached but a large proportion of the population (including non-poor informal workers) could be covered for essential services.

Box 2. Community-based health insurance

The evidence demonstrates that CBHI may fill a coverage gap in certain local communities but cannot be used as a national prepayment scheme and is not appropriate for broad coverage of non-poor informal workers.

‘While getting the poor to join CBHI schemes seems likely to promote their access to basic services, it is not clear that this is the best strategy through which to promote the progressive distribution of subsidies’ (Bennett, 2004).

‘From a systems perspective, community health insurance may result in poorer groups contributing to their health care costs to a greater extent than richer groups who are able to access public services, and thus may be inequitable with respect to payment’ (Mills, 2007).

Conclusion

To be successful, universalist approaches require either tax-based funding or compulsory membership of contributory funds, or a combination of both.

Some caution is needed in extending coverage to non-poor informal workers. Extending SHI schemes down to include non-poor informal workers faces the challenge of opposition from formal sector employees to the cross-subsidization of informal workers who may pay lower or subsidized premiums. In extending subsidized coverage from the poor upward, care must be taken to also maintain and guarantee funding levels for the poor. The financial viability of such schemes may be threatened in the absence of sufficient government subsidies.

An alternative is to design coverage schemes for non-poor informal workers that combine elements of contributory (for example, a discounted premium payment) and non-contributory (that is, tax funded) approaches. In this case, a significant level of tax-based funding will be needed to underwrite such schemes financially.

Based on experience, researchers and policy-makers are moving away from the use of contributory prepayment mechanisms (with voluntary or compulsory contributions) as the preferred option for covering non-poor informal workers, and there is growing support for the expansion of tax-based financing.

More attention needs to be paid, therefore, to strengthening government allocations to the health sector. In this case, issues related to coverage of

non-poor informal workers must be seen as a question of national political priority. Placing coverage of non-poor informal workers within the context of a comprehensive national health financing strategy provides the best means of tackling the most demanding issues and providing coverage of non-poor informal workers as one part of the broader universal coverage agenda.



II. Working Paper

Introduction

Many low- and middle-income countries (LMICs) in Asia have adopted the goal of universal health coverage. In principle, universal coverage includes providing financial protection to the whole population. This is a goal. In practice, universal coverage cannot be achieved at once, but involves progress along a path towards achieving complete population coverage (Kutzin, 2013). This is especially true in LMICs, where resources are constrained and per capita health expenditures are low. Experience shows that LMICs generally begin on the pathway to universal coverage by implementing different prepayment mechanisms targeted at particular sections of the population.

Prepayment mechanisms have been defined as a means of distributing the financial risk associated with different individuals' health-care expenditures over time and across populations (Acharya et al., 2012). Prepayment may include insurance mechanisms funded by beneficiary contributions, or premiums, but may also include a variety of general and targeted taxation measures that provide funding for health care as a social benefit or citizenship right.

Countries in Asia are at different stages of progress in establishing prepayment mechanisms. Many have implemented compulsory social health insurance (SHI) schemes for civil servants and employed private-sector workers, and others have focused on subsidized coverage of the poor and near poor (Annear et al., 2013). A particular challenge, however, is to design and implement prepayment schemes to cover non-poor informal workers (Tangcharoensathien et al., 2011; Lagomarsino et al., 2012; Kurimoto, et al., 2013). Only a few LMICs have been able to meet this challenge.



Challenges in covering non-poor informal workers

The informal sector covers a heterogeneous set of activities that vary between regions and countries (ILO, 1992). Although there is heterogeneity in incomes due to the wide range of informal-sector employment categories – such as farmers, street vendors, taxi drivers and small business owners – common characteristics across the sector are variable or seasonal income flows and casual, rather than permanent, employment not bound by contractual arrangements and therefore not subject to income taxation or salary deductions for SHI.

Bitran (2014) defines informal workers as those outside formal employment, comprising all those employed informally whether in the formal, informal or household sectors. According to the International Labour Organization (ILO) the informal sector consists of a large number of small units established, owned and operated by self-employed persons, either alone or in partnership with others, for the primary purpose of generating their own employment and income through the production or distribution of goods or the provision of services (ILO, 1992). In rural areas, in particular, informal sector activities are often carried out as seasonal activities.

In many Asian countries, the informal sector comprises more than half of all employment (Comrie-Thomson, 2012), and almost all informal workers are “vulnerable”, that is, unpaid family workers and own-account workers. A summary of employment status (formal and informal) for various Asian countries is presented in Table 1. Informal workers include the poor, but a large proportion can be classified as non-poor (Tangcharoensathien et al., 2011). Our special concern here is with the coverage of informal workers who are above the poverty line, that is, non-poor informal workers.

The nature of non-poor informal workers presents governments and insurance providers with particular challenges. Levels of household income within non-poor informal workers are generally low, and the income gradient is shallow, making it difficult to distinguish between different groups in terms of their ability to pay. Collecting both insurance premiums and taxes from this

Table 1. Employment status: per cent of total employment by country (2012 or latest available year)

Indicator	Cambodia	India	Indonesia	Malaysia	Mongolia	Philippines	Sri Lanka	Thailand	Viet Nam
Wage and salaried workers, total (% of total employed)	35.8	*18.1	#39.4	74.9	#43.4	56.6	56.4	43.7	34.7
Self-employed, total (% of total employed)	64.2	*81.9	#60.6	25.1	#56.1	43.4	43.6	56.3	65.3
Vulnerable employment, total (% of total employment)	64.2	*80.8	#53.2	21.4	#54.9	39.8	40.7	53.5	62.5
Employers, total (% of employment)	0.0	*1.1	#3.4	3.8	#1.2	3.7	2.8	2.6	2.7
Poverty headcount ratio at national poverty lines (% of pop)	17.7	21.9	12.0	1.7	27.4	25.2	*8.9	#13.2	17.2

* = 2010; # = 2011

“Wage and salaried workers” (employees) are those workers who hold the type of jobs defined as “paid employment jobs”, in which where the incumbents hold explicit (written or oral) or implicit employment contracts that give them a basic remuneration that is not directly dependent upon the revenue of the unit for which they work.

“Self-employed” workers are those who, working on their own account or with one or a few partners or in a cooperative, hold the type of jobs defined as a “self-employment job” (i.e. a job in which the remuneration is directly dependent upon the profits derived from the goods and services produced). Self-employed workers include three subcategories: employers, own-account workers, and members of producers’ cooperatives.

“Vulnerable employment” is unpaid family workers and own-account workers as a percentage of total employment.

“Employers” refers to those workers who, working on their own account or with one or a few partners, hold the type of jobs defined as a “self-employment job” i.e. a job in which the remuneration is directly dependent upon the profits derived from the goods and services produced), and, in this capacity, have engaged, on a continuous basis, one or more persons to work for them as employee(s).

Source: World Bank, World Development Indicators, updated 12 March 2015; based on ILO data (<http://data.worldbank.org/data-catalog/world-development-indicator>; accessed 20 May 2015).

sector is difficult due to the lack of regular incomes, but commentators argue that a large proportion of non-poor informal workers, given that they are not poor, are able to contribute in some way (Bitran, 2014).

The implementation of prepayment mechanisms for non-poor informal workers is a relatively new policy area with many unresolved issues (Acharya et al., 2013). Questions being raised in the literature are whether voluntary schemes are effective in covering non-poor informal workers, whether social health insurance (SHI) can be extended to cover non-poor informal workers, and whether complete subsidization of non-poor informal workers can create perverse incentives for maintaining informal employment (Bitran, 2014).

In general, schemes to cover non-poor informal workers require a combination of contributions (usually voluntary) and subsidization through taxes or grants (Acharya et al., 2013; Comrie-Thomson, 2012). For contributory schemes, one challenge is to set premium levels low enough to allow enrolment by the majority of the target population but not so low that the scheme will be financially unsustainable or cannot offer a relatively comprehensive benefit package (Comrie-Thomson, 2012). A further challenge is to find the means to collect contributions from that segment of the population that has the ability to pay (McIntyre et al., 2013).

Many countries lack the fiscal space or capacity to subsidize this group fully through tax revenues, and the relatively small size of the formal sector makes cross-subsidization of non-poor informal workers financially unsustainable (Tangcharoensathien, et al., 2011; Kurimoto, et al., 2013). Fiscal space is the ability of a government's national budget to provide resources for a desired purpose, such as increased health spending, without jeopardizing the sustainability of its financial position or the stability of the economy. Fiscal capacity is the ability of the government to generate additional revenue, which depends on a range of factors including per capita income levels, economic growth, and an effective taxation structure.

Several countries in Asia and Africa are currently exploring different schemes and pathways with differing levels of success and little consensus on the best mechanisms for coverage by prepayment schemes (Chuma et al., 2013; McIntyre et al., 2013). Therefore, there is an urgent need to understand the best strategies to cover non-poor informal workers.

This working paper draws on original research carried out by the Nossal Institute for Global Health at the University of Melbourne, based on a review of the published and grey literature on coverage of non-poor informal workers, primarily in Asia, with relevant examples from Africa. The findings from this initial review were supplemented by a wider reading of secondary sources.

The work began with three studies: the first looked at inclusion of non-poor informal workers in community-based health insurance (CBHI) schemes in Asia (Comrie-Thomson, 2012); a second paper examined the case of universal coverage in Thailand (Bates, 2012); the third paper drew lessons from the experience of inclusion of the poor and non-poor informal workers in prepayment schemes in seven countries in Asia and Africa (Kurimoto, Bates and Annear, 2013). This initial research focused on primary studies in seven countries: China, Ghana, Indonesia, the Philippines, Rwanda, Thailand, and Viet Nam. The two African countries were included as they had pursued policies of particular relevance to the Asian nations. These seven countries provided the largest amount of literature, were closest to the experience of the emerging economies of Asia, and provided the clearest lessons learned. For a list of additional sources see Box 1.

The preliminary findings from these reviews were presented at two peer expert group meetings:

- Health Financing Experts' Meeting, 8–9 April 2014: inauguration of the WHO Collaborating Centre for Health System and Financing, School of Public Health, Seoul National University, with experts from the World Bank, WHO and other regional academic institutes and international development partners (http://hosting02.snu.ac.kr/~whocc/index.php?mid=board_CzjK20&listStyle=list&sort_index=regdate&order_type=asc&document_srl=238).
- Preliminary results were presented to the 2014 International Forum on Universal Health Coverage, *Coverage Expansion of the Informal*

Box 1. Key sources of information on coverage of non-poor informal workers

Studies by the Nossal Institute for Global Health:

Bates, 2012; Bates and Annear, 2013

Comrie-Thomson, 2012

Kurimoto, Bates and Annear, 2013

Additional relevant studies:

Acharya, Vellakkal, Taylor, Masset, Satija, Burke and Ebrahim, 2012

Bitran, 2014

Chuma, Malupi and McIntyre, 2013

JLN, Australian Aid and German Technical Cooperation, 2013

McIntyre, Ranson, Aulakh and Honda, 2013

Tangcharoensathien, Patcharanarumol, Ir, Aljunid, Mukti,

Akkhavong, Banzon, Huong, Thabrany and Mills, 2011

Sector: The Missing Middle, 9 June 2014, Seoul, Republic of Korea, sponsored by the Korea Foundation for International Healthcare, with representatives of WHO, the World Bank, the Ministry of Health and Welfare of the Republic of Korea, the National Health Insurance Service, and the Health Insurance Review and Assessment Service (http://www.kofih.org/hboard3/bbs/board.php?bo_table=m12_s02&wr_id=33).



Prepayment for health care

Universal coverage requires a system of prepayment for health care. Prepayment mechanisms have been defined as a means to distribute the financial risk associated with different individual's healthcare expenditures over time and across populations (Acharya et al., 2012). All health care costs that are not paid out-of-pocket at the point of service are a form of prepayment, including private insurance (voluntary or employment-related), social insurance (with contributions by employers and employees) and taxation (direct or indirect). The principle of prepayment is that small amounts are paid periodically in advance (through insurance or taxation) and large medical costs are covered at the point of care by the prepayment scheme. The purpose is to protect people from large, unexpected, financial losses.

Prepayment mechanisms may be 'contributory', in which the beneficiary makes a regular payment through insurance or taxation, or 'non-contributory', where beneficiary health care costs are paid from government general revenues. Contributions to a prepayment scheme may be mandatory (as with SHI) or voluntary (as with CBHI). The ways in which these categories may be appropriate, or not appropriate, for the poor, non-poor informal workers and the formal sector are summarized in Table 2.

Generally, contributory schemes are appropriate for formally employed workers, and non-contributory schemes for the poor. Contributory schemes may be voluntary or mandatory but are not generally appropriate for the poor, who commonly have too little cash to meet regular payments. Such schemes may play some role in coverage of non-poor informal workers under certain conditions. Non-contributory schemes require funding from general or earmarked taxation, but cannot be implemented effectively through voluntary payments. The advantage gained from implementing non-contributory mechanisms is evident in achieving higher coverage rates in a shorter time period, as demonstrated by Thailand, though with a benefit

Table 2: General categories of prepayment mechanisms

		Voluntary payment by the beneficiary	Mandatory payment or taxation
Contributory	<i>The poor</i>	n.a.	n.a.
	<i>Non-poor informal workers</i>	Opt-in SHI premium Private insurance premium CBHI premium	Salary deduction Social insurance premium
	<i>Formal sector</i>	Private insurance premium	Salary deduction Income tax levy
Non-contributory	<i>The poor</i>	n.a.	Citizenship right Tax-funded benefits
	<i>Non-poor informal workers</i>	n.a.	Compulsory premium Citizenship right Tax-funded benefits
	<i>Formal sector</i>	n.a.	Compulsory premium Citizenship right Tax-funded benefits

n.a. = not applicable, i.e. not effective due to the nature of the particular population group.

Source: Created by the authors for this brief

package that is more limited than that provided to members of formal sector schemes (Bates, 2012; Bates and Annear, 2013).

The nature and coverage of different prepayment schemes in seven countries identified by this study are presented in Table 3. These are seven case study examples and are not intended to represent experiences in Asia and Africa generally. The key findings from this exercise include the following:

- Countries with higher enrolment either fully tax-finance their prepayment schemes (Thailand) or subsidize a large proportion of the contribution (China, Ghana, Viet Nam);
- Several countries are moving from voluntary to some form of mandatory contributions (Philippines, Rwanda);
- Most schemes have a flat rate premium for non-poor informal workers, often an annual fee (Philippines, Rwanda).

Table 3: Characteristics of prepayment schemes for non-poor informal workers in selected low- and middle-income countries

Country and scheme	Per cent informal sector enrolled	Funding mechanism	Government subsidy	Mandatory or voluntary	Premiums	Pathway	Risk pool
China - New Rural Cooperative Medical Scheme	48-99%*	Contributions + tax subsidy	Average 80% (100% for the poor)	Voluntary but strong incentives to join	Flat-rate	Separate scheme for poor and informal workers	Separate risk pools for formal sector and informal/poor
Costa Rica - <i>Caja Costarricense de Seguro Social</i>	96% of the total population	Contributions + tax subsidy	Employers/employees provide 90% of funding; the state provides 7%, mainly as insurance premiums for the poor	Mandatory for formal sector workers; voluntary for others	22.91% of salaries; graduated flat-rate scale for non-poor informal workers	Coverage through a single national provider	Single
Ghana	55%	Contributions + tax subsidy	97%	Mandatory, but enforcement is weak	Flat rate + one time registration fee for informal sector; may be income-adjusted at district level; full subsidy for poor	Extension of national scheme to informal sector	Single

Table 3: Characteristics of prepayment schemes for non-poor informal workers in selected low- and middle-income countries (cont.)

Country and scheme	Per cent informal sector enrolled	Funding mechanism	Government subsidy	Mandatory or voluntary	Premiums	Pathway	Risk pool
Indonesia (pre-2014) - <i>Jamkesmas</i>	33% of the total population 56% of informal sector including the poor	Tax-funded	100% of premium for the poor and informal sector	Voluntary and non-contributory	None	Separate scheme for poor and near-poor	Separate risk pools for formal and informal/poor
Indonesia (from 2014) - <i>JKN Mandiri</i>	Exclusively for non-poor informal workers but low level of enrolment	Contribution based	Nil (insurance premiums for the bottom 40% of the population by income)	Mandatory and contributory	Approx. 5-6% of estimated income	Extension of national scheme to the informal sector	Single national risk pool
Philippines - <i>PhilHealth</i>	35% (includes only the poor)	Contributions + tax subsidy	Only for the poor (but planning to extend to near poor)	Voluntary (but transitioning to mandatory)	Fixed-rate annual premium	Extension of national scheme to non-poor informal workers	Single

Table 3: Characteristics of prepayment schemes for non-poor informal workers in selected low- and middle-income countries (cont.)

Country and scheme	Per cent informal sector enrolled	Funding mechanism	Government subsidy	Mandatory or voluntary	Premiums	Pathway	Risk pool
Rwanda	73%	Contributions + tax subsidy	45% from govt, donors, grants; 55% from contributions	Shifted from voluntary to mandatory	Annual flat fee (contributions of poor covered by donors)	Separate scheme for rural areas and non-poor informal workers	Separate risk pools for formal and informal/poor
Thailand - Universal Coverage Scheme	95-98% of the total population	Fully tax-funded	100%	Mandatory tax-funded	None	Unification of previous targeted schemes into one national scheme for all those outside the formal sector schemes	Separate risk pools for formal and informal populations
Viet Nam - Viet Nam Social Security	38%	Contributions + tax subsidy	50% for non-poor informal 100% for the poor	Recently moved to mandatory enrolment	Based on place of residence	Extension of national scheme to informal sector	Single

* = Includes informal sector, self-employed and irregular employment (China).

Source: Compiled by the authors from references cited in this paper.



Coverage of non-poor informal workers

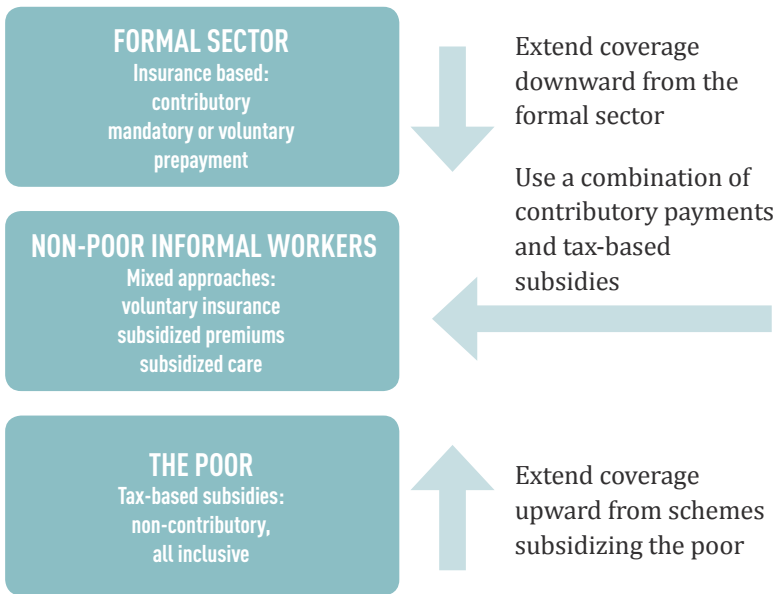
In general, different countries have begun the journey towards universal coverage in different ways. In some countries (like India, Lao People's Democratic Republic and Viet Nam), the first step was to establish SHI programmes with compulsory salary deductions for civil servants and private sector employees, that is, the formal sector. In other countries (like Cambodia) the first step was to establish donor- and tax-based subsidies to provide access to health services for the poor (social insurance schemes for the formal sector have been established in Cambodia but do not yet operate to provide health benefits). Few LMICs in Asia have yet solved the problem of coverage of non-poor informal workers (with the exception of Thailand and China).

A review of the literature on coverage of non-poor informal workers leads to the conclusion that the options for coverage of non-poor informal workers must draw on these established methods. Moreover, innovation in methods to cover non-poor informal workers, within the context of each LMIC, is needed to develop the most affordable and effective package. Because of the greater success in covering the formal sector through compulsory health insurance and covering the poor through full subsidization, questions are being raised about whether governments should extend coverage from the formal sector down to non-poor informal workers and to invest in improving the infrastructure needed to collect premiums, and/or to extend subsidies up from the poor to non-poor informal workers, and invest in improving fiscal capacity to subsidize a larger population (JLN et al., 2013). These approaches have been popularly termed 'squeezing the middle' (Tangcharoensathien, et al., 2011).

Within this context, approaches to cover non-poor informal workers will vary depending on the political, economic and cultural context within each LMIC. In conceptual terms, there are three broad, practical approaches to providing coverage of non-poor informal workers: extend coverage downward from

the formal sector; extend coverage upward from schemes subsidizing the poor; use a combination of prepayment and tax-based subsidies. These three approaches are illustrated in Figure 1. The critical questions are whether governments have a commitment to providing coverage universally, whether the fiscal space and capacity exists to enable governments to fund prepayment programmes, and whether the political leadership needed for the implementation of effective programmes exists. A supplementary question is what capacity non-poor informal workers may have to pay a contribution towards their own health-care costs.

Figure 1: Approach to coverage of non-poor informal workers



Source: Asia Pacific Observatory



From the top down: compulsory premium or voluntary payment?

SHI schemes for the formal sector are generally contribution-based and funded by mandatory salary deductions paid by employers and employees (contributory schemes). In principle, these schemes could be extended to non-poor informal workers in three ways: applying a mandatory premium, allowing an opt-in voluntary premium, or providing a subsidized premium (full or partial).

In Costa Rica, health care is a citizenship right reinforced by a positive ruling of the country's Constitutional Court. While the countries of Latin America were outside the ambit of this review, Costa Rica does provide a good example of a small, middle-income country with a low poverty rate where universal health coverage (UHC) – including coverage of non-poor informal workers – has been achieved through an autonomous, national, single-payer SHI system (See Box 2 below).

Box 2. Costa Rica

National health insurance coverage in Costa Rica exceeds 96% of the population. Out-of-pocket spending on health care is only 4.7% of household income and the prevalence of catastrophic health expenditures is low at 0.7% of households. The national insurer – the *Caja Costarricense de Seguro* (Costa Rican Social Security Administration) – is funded by contributions from employers, employees and the state (especially for the poor) (see Table 3).

Evidence from Costa Rica indicates that health planners and policy-makers:

- Achieved a level of political commitment and leadership by taking advantage of windows of opportunity, such as elections and periods of stable economic growth. Political commitment was reinforced by legislative changes and judicial

Box 2. Costa Rica (cont.)

interpretations of the Constitution that support the universal right to health and health-care services.

- Built on broadly based citizen support and action in sustaining the movement towards UHC by making an explicit commitment to universality, which reinforced a strong social consensus about UHC.
- Took full account of factors, such as the size and character of the non-poor informal sector, poverty levels, capacity of existing health services infrastructure, prospects for economic growth, and the demographic and health transitions, when designing an appropriate scheme.
- Invested resources in strengthening the primary health-care delivery system before expanding coverage to non-poor informal workers, which had the effect of providing a supply of services and quality of health care to support the increased demand.
- Expanded coverage of the mandatory insurance scheme for the formal sector over time to include non-poor informal workers.
- Expanded the enrolment of non-poor informal workers by fully tax-financing the prepayment scheme from the time when the scheme was first expanded to include them. In the 1980s, falling formal employment led to concerted attempts to increase coverage of the poor and the informal sector.

However, questions are being raised about the sustainability of the Costa Rican model, and financial management tools and information are limited, with little ability to monitor costs by production units or the responsiveness of health-care providers.

There is also increased demand for specialized treatment for chronic conditions as Costa Rica undergoes demographic and epidemiological transitions, in part due to improvements in population health achieved under the current system. This places increased costs on a health system that was previously oriented towards primary care and prevention. Costa Rica now faces several challenges in maintaining the single-payer system, including expanding tax funding to meet rising costs, reducing the debt of the national insurance provider, and the growth of private insurance providers serving the middle- and high-income earners who wish to have access to private, specialized treatment (such as cancer treatment).

Source: Hernandez et al., 2014; Torres, 2013; Vargas et al., 2013; McIntyre et al., 2013; del Rocio Sáenz et al., 2010; Unger et al., 2008

Both the Philippines and Viet Nam have attempted to extend contributory schemes from the formal sector to non-poor informal workers using voluntary, opt-in enrolment (Tangcharoensathien et al., 2011; Nguyen et al., 2013). The African experience suggests that while mandatory enrolment is more effective in achieving good population coverage (compared to voluntary CBHI enrolment rates) the mandatory approach applies almost exclusively to the formal sector (McIntyre et al., 2013; Chuma et al., 2013). For example, under the National Health Insurance Scheme (NHIS) in Ghana, formal sector workers contribute a mandatory premium (2.5% of salary) while a subsidized, flat but graduated annual premium of about US\$ 2 – US\$ 12 applies to informal sector workers, and the government fully subsidizes premiums for the poor (Chuma et al., 2013). However, 61% of NHIS revenue comes from value added taxes (Schieber et al., 2012).

Even so, mandatory enrolment is considered to be one way to reduce the impact of adverse selection (Acharya et al., 2013; JLN et al., 2013). Adverse selection refers to situations in which the sicker and the older tend to enrol while the healthier and the younger tend not to (Kwon, 2009; Van der Gaag and Stimac, 2012). This prevents positive cross-subsidization from younger, healthier beneficiaries to those more in need (the underlying principle of the insurance mechanism). However, mandatory enrolment is extremely difficult to implement among non-poor informal workers.

In 2014, the Government of Indonesia initiated a national SHI scheme, the *Jaminan Kesehatan Nasional* (JKN). Formal sector workers pay a compulsory premium covered jointly by employers and employees. The government fully subsidizes the insurance premium for those who fall within the bottom 40% of the income distribution. For non-poor informal workers, the Government introduced a programme called the *JKN Mandiri*, a compulsory scheme under which non-poor informal workers are required to register individually for JKN and make monthly premium payments. However, one major challenge facing the JKN is the low enrolment and retention rate of non-poor informal workers. Among the main reasons for this low rate are that the membership sign-up and payment process takes too much time and effort and many people consider that insurance is not important. An analysis of the administrative data suggests that most of those who join *JKN Mandiri* are ill to begin with, which limits the financial sustainability of the programme.

A recent research study (JKN et al., 2015) tested different approaches to increasing enrolment in *JKN Mandiri*. These included communications emphasizing that *JKN Mandiri* membership is mandatory; subsidized premiums; an on-site registration drive to reduce the travel costs and the hassle of enrolment; and an opportunity for villagers to become JKN cadres

in order to provide information and help other people enrol in exchange for a small monthly stipend and either a full premium subsidy for six months or a six-month free membership voucher for half of the family members of the person enrolled with JKN *Mandiri*. The results revealed no significant improvement in enrolment despite such interventions. The authors of the study concluded that without penalties, compulsory enrolment was difficult to enforce. However, only rural workers were tested and further research is planned for urban informal workers.

Countries such as Rwanda have attempted to make enrolment mandatory or achieved by policies that strongly enforce registration. Membership of the *mutuelles de santé* for informal workers changed from voluntary to mandatory after 2006 along with strong sanctions applied to non-membership, which helped to increase coverage to more than 90% of the population. Ghana, Rwanda and the United Republic of Tanzania have all passed legislative acts making it mandatory for citizens to be enrolled in an insurance scheme (Chuma et al., 2013). McIntyre et al., 2013 argue that deficiencies in the legislation in the United Republic of Tanzania had hindered progress. Though these countries have experienced higher enrolment rates they also face challenges due to the seasonality of incomes and lack of ability to enforce the law (Chuma et al., 2013).

The key issues for voluntary, opt-in schemes are the capacity to pay health insurance premiums and the risk of adverse selection. In the Philippines, the Individual Payer Programme (IPP) attracted mostly the chronically ill and those with higher utilization rates than the average PhilHealth beneficiary (Tangcharoensathien et al., 2011). To make enrolment more attractive, a number of countries subsidize premiums for SHI or prepayment schemes for non-poor informal workers. Japan and the Republic of Korea both provide partial subsidies to informal sector workers (see Box 3) (Kwon, 2011). However, further evidence suggests that in LMICs subsidies have little effect on increasing voluntary enrolment in SHI schemes (see below).

Thailand offered voluntary enrolment to informal workers from 1991 with the Voluntary Health Card Scheme (VHCS), but the programme failed due mainly to adverse selection and abuse of procedures. Thailand later introduced a completely tax-funded scheme to cover non-poor informal workers, with a restricted benefit package. The United Republic of Tanzania tried without success to extend formal sector schemes by means of voluntary contributions and, in response to this failure, attempted to strengthen its management procedures (McIntyre et al., 2013).

Box 3. Republic of Korea: Extending prepayment mechanisms to non-poor informal workers

The Republic of Korea extended social health protection to non-poor informal workers within a relatively short time frame (12 years). It first introduced health insurance for the private formal sector in 1977 (extended to civil servants in 1979). Mandatory contributions from the formal sector are deducted from salaries, are proportional to incomes, and are shared equally between employer and employee. At the same time, the Government introduced the Medical Aid Programme for the very poor, funded through general tax revenue.

Coverage of the self-employed (non-poor informal workers) was initiated in 1988 and reached full population coverage within a year. Since 1981, the Government had been testing different methods of collection and fine-tuning contribution formulas. Premium payments now include a basic contribution supplemented by a capacity-based contribution, according to an estimate of income and property. In 2000 all health insurance societies that were responsible for different categories and regions were merged into a single agency, the National Health Insurance Corporation (NHIC), to better pool risk and reduce administrative and management costs.

Membership for non-poor informal workers was geographical, based on the region of residence, and the Government initially subsidized almost 50% of the premium. This subsidy has fallen over time, and by 2006 only 17% of total health insurance revenues came from taxation. Out-of-pocket health payments decreased as a proportion of total health expenditure from 63% in 1983 to 38% in 2004 (but remain higher than the Organisation for Economic Co-operation and Development average).

Pilot testing was important in helping the Government define the technical details for premiums, the collection mechanism, and expansion of coverage. The Government also provided additional financial support for hospitals in rural areas to encourage farmers to join the scheme. Contributions are set at affordable rates, are mandatory, and are collected through local branches of the NHIC, supplemented by tax revenues (including tobacco tax).

Box 3. Republic of Korea: Extending prepayment mechanisms to non-poor informal workers (cont.)

Payment of premiums is made more convenient by the fact that credit cards can be used to do so on the internet, at convenience stores and at local banks, and there are penalties for non-payment, such as denial of health benefits and (in extreme cases) property seizures.

A high rate of economic growth (12% in 1986–1988) gave workers the financial ability to pay for health insurance and provided the Government with the fiscal capacity (supplemented by tobacco taxes) to subsidize premiums for non-poor informal workers. Political pressures at the time were also conducive to the achievement of these goals. Following the introduction by the Ministry of Health and Welfare of a fee schedule for the insured, there was growing inequity between the insured and uninsured as medical providers were free to charge uninsured patients higher fees as they wished; coverage of non-poor informal workers reduced this disparity.

Government subsidization was a significant factor in the success of this scheme. The emphasis was put on population coverage, and the scheme began with a shallower benefit package, which was extended slowly. Outpatient services were included from the beginning, an important incentive for public acceptance. However, as the contributions formula for the self-employed takes into account both income and property, there are ongoing challenges in regard to estimating income levels and the relevance of property as a measure of the capacity to pay. The complexity of the calculation system has also caused concerns due to its lack of transparency.

Source: Kwon, 2009; Jeong, 2010

Langenbrunner and Somanathan (2011) conclude that a large informal sector generally calls for a greater role to be played by tax-based financing in health care together with a high level of political commitment (e.g. Mongolia and Thailand). However, as experience in Indonesia, Mongolia, the Philippines, and Thailand indicates, there are many practical difficulties associated with tax reform (Gottret and Schieber, 2006).



From the bottom up: extending government subsidies for health care

The use of contributory prepayment schemes is often considered when a government does not have the budget to fully subsidize non-poor informal workers (JLN et al., 2013). The results will vary depending on whether the schemes require the payment of a voluntary premium or a mandatory contribution, but in both cases the evidence of effectiveness is weak (Bitran, 2014; Acharya et al., 2013).

Non-contributory mechanisms generally involve some form of financing through the tax system, often supported in low-income countries by international donors. The advantage gained from implementing non-contributory mechanisms is evident in achieving higher coverage rates in a shorter time period. Where financially possible, the most efficient means of expanding coverage of non-poor informal workers is full subsidization, though limited benefits may also be gained by partial subsidization (JLN et al., 2013; Bitran, 2014).

The Government of India has made various attempts to extend coverage from the poor to non-poor informal workers. The most extensive health protection scheme in India is the *Rashtriya Swasthya Bima Yojana* (RSBY) scheme for the poor, a public-private partnership that effectively provides a geographic monopoly for contracted insurance companies in which to expand coverage. Less success has been achieved in expanding coverage to informal sector workers above the poverty line (see Box 4).

Box 4. India: Coverage of the informal sector

Informal or unorganized labour comprises 93% of the labour force in India, including the poor and non-poor informal workers. While the RSBY scheme for the poor (those living below the poverty line) now covers a large proportion of the national population, less progress has been made in coverage of informal sector workers above the poverty line.

Box 4. India: Coverage of the informal sector (cont.)

The Government of India runs three separate schemes for formal and informal sector workers: the Employees' State Insurance Scheme, the Central Government Health Scheme and RSBY. Many state governments offer their own health insurance schemes.

In 2003, the central Government made an early attempt to introduce health insurance for the informal sector under the Universal Health Insurance Scheme. This scheme provided voluntary hospitalization indemnity purchased from any state-owned insurer at a heavily subsidized price (less than US\$ 4 a year). However, the scheme had achieved coverage of only 3.7 million people by 2009.

By 2010, only 240 million Indians were covered by Government-sponsored health insurance schemes, about 19% of the population. With the addition of private insurance and other schemes (including CBHI), more than 300 million people, or 25% of the population, have access to some form of health insurance.

For the RSBY scheme, a public-private partnership, national and state governments provide funding to state-based RSBY nodal agencies, which administer the system. The nodal agencies competitively sub-contract private insurance providers to deliver the programme as free access to health care for the poor at empaneled public and private health facilities, mostly for high-frequency secondary hospital care. Contributions by beneficiaries are nominal and are only for enrolment. Under the scheme, the insurance companies are provided with an effective geographic monopoly in which to expand coverage.

From 2010, the national Government offered RSBY Plus – a voluntary top-up package for RSBY enrolees providing additional inpatient tertiary care benefits – through the state-based nodal agencies and contacted insurance providers.

In some cases, state governments have extended coverage to the “vulnerable” poor, including non-poor informal workers, covering in some cases between 50% and 80% of their state population. One scheme targeting the informal sector is the *Yeshasvini* Co-operative Farmers Health Care Scheme, a voluntary health insurance scheme designed for the members of cooperative societies in rural Karnataka that began in 2003 and is the longest-running state-supported health insurance scheme for the informal

Box 4. India: Coverage of the informal sector (cont.)

sector in India. By 2010, the scheme had 3 million members paying a fixed annual contribution of less than US\$ 4 per annum.

India's 12th Five Year Plan for economic development 2012–2017 promised a state-financed contributory point of service package for vulnerable people living above the poverty line.

Source: La Forgia and Nagpal, 2012

Thailand provides a clear example of using fully tax-funded subsidies for non-poor informal workers through its Universal Coverage Scheme (UCS), which covers all those not included in formal sector SHI schemes (though with a more limited benefit package than the formal sector schemes) (Bates, 2012; Bates and Annear, 2013). Thailand made various approaches to coverage of non-poor informal workers before moving to universal coverage with tax funding. In 1975 it initiated coverage for the poor, the elderly, the disabled and children aged under 12 years through the Medical Welfare Scheme, but coverage of non-poor informal workers remained limited. The Voluntary Health Card scheme, launched in 1983, provided coverage for primary health care and maternal and child health care. It was expanded into voluntary health insurance, and later received a matching Government subsidy; coverage had reached 14% of the total population by 1997 (HISRO, 2012).

The financial sustainability of non-contributory schemes that include a large proportion of the population is the main challenge in LMICs. Questions are being raised regarding the longer-term sustainability of the Thai model (JLN et al., 2013; McIntyre et al., 2013). In a study of 11 countries in Africa, Asia, Latin America and Europe, Maeda et al. (2014) concluded that all faced the challenge of finding the fiscal space to finance UHC. Consequently, there is interest in exploring ways in which governments can expand the health budget or seek new sources of financing.

A government can create fiscal space by raising taxes, securing outside grants, cutting lower priority expenditure, borrowing resources (from citizens or foreign lenders), or borrowing from the banking system (and thereby expanding the money supply). But it must do so without compromising macroeconomic stability and fiscal sustainability. To increase fiscal capacity, a government can look to additional sources of revenue. Among the initiatives recommended by the WHO (2010) and the Taskforce on Innovative International Financing for Health Systems (Taskforce, 2009) are: levy on large and profitable companies, tax on foreign currency transactions, tax on

bank account and remittance transactions, tourism tax, tobacco and alcohol excise taxes, excise on unhealthy foods, diaspora bonds for nationals living abroad, and value-added taxes. Governments may also seek to secure better performance and investment from private, faith-based, community, NGO and other non-state actors in the health sector.

Many countries seek to diversify revenue sources. In addition to payroll deductions some are turning to other forms of taxation: Brazil has allowed an expansion in private voluntary health insurance (which has raised out-of-pocket spending and reduced financial security); Bangladesh is looking for ways to expand its narrow tax base using payroll taxes under a social insurance programme (which may steer the Government's resources towards workers in the formal sector and away from less affluent and informal sector workers); Gabon has imposed a 10% levy on mobile phone companies; the Republic of Korea and Thailand collect sin taxes on alcohol and tobacco or unhealthy foods; Ghana supplements a large proportion of its national health coverage scheme through value-added tax (Chuma et al., 2013).

However, one problem that appears to be associated with full subsidization of non-poor informal workers is that the subsidies can provide an incentive to individuals to maintain or move to informal-sector employment in order to avoid the health-related tax impositions, which in turn further erodes an already limited tax base (JLN et al., 2013; Bitran 2014). This apparent perverse incentive for informality remains an issue that requires further rigorous research.



A combination of contributory payments and tax-based subsidies

Where the fiscal space or capacity for extending tax-based subsidies to non-poor informal workers exists, the most effective way to extend coverage is through tax-based funding. Where the fiscal space or capacity does not exist, alternative approaches may be needed. Generally, these involve some combination of (usually voluntary) contribution-based payments and tax subsidies. Some innovative ideas for coverage of non-poor informal workers are yet to be tested in practice. The challenge is to define a package of interventions in a way that avoids unnecessary fragmentation between schemes, delivers a relatively uniform benefit package, and provides access to services for those most in need.

Extending SHI benefits to organized groups of non-poor informal workers – who can be identified and managed efficiently for insurance purposes – may provide one avenue. Group-based enrolment has been successful in expanding membership in some countries. The costs associated with group-based enrolment are lower as insurance agents can enrol a larger number of beneficiaries in one place. Microfinance and microinsurance agencies are one example. The Philippines used institutions that provided microfinance to target non-poor informal workers, though this strategy has been less successful in other regions (JLN et al., 2013). Credit unions and employment associations have been used to expand enrolment of non-poor informal workers.

In some cases, sections of non-poor informal workers have formed membership-based organizations, which operate on democratic principles, many run by and for women. The most prominent example is the Self-Employed Women's Association (SEWA) in India, which gained recognition as a trade union in Gujarat State in 1972. In the 1980s, domestic workers and waste pickers began to establish cooperatives and representative organizations. HomeNet South Asia (Bangladesh, India, Nepal, Pakistan and Sri Lanka) was established in 2006 for home-based workers. StreetNet International (Côte d'Ivoire, Ghana, Kenya, Nigeria, Philippines, Thailand, Uganda and Zambia),

Box 5. Cambodia's garment workers

The garment industry is Cambodia's largest industrial sector, employing more than 350 000 workers, which is half of all manufacturing employment.

These garment industry employees are, in fact, formal private sector workers comprising predominantly young women migrants from rural areas. SHI for the formal sector has been promised by the National Social Security Fund (NSSF) but not yet delivered.

In the interim, GRET (a French NGO), the NSSF, and the Garment Manufacturers' Association combined in 2009 to launch a pilot voluntary health insurance programme with 50% of the premiums subsidized by employers.

With a target of 20 000 members, the scheme had enrolled 5000 people by 2013 and will later be integrated into the national NSSF SHI scheme when initiated (for more information see: Center for Health Market Innovations, Garment Manufacturers' Association of Cambodia; <http://healthmarketinnovations.org/program/garment-manufacturers%E2%80%99-association-cambodia>, accessed 23 June 2015).

organizing street vendors, market vendors and hawkers, was formed in 2002, beginning a rapid increase in the number of informal worker organizations globally. Among the different forms of organization are informal worker committees (in China), committees formed to manage specific projects (in Brazil), trade unions, cooperatives (in South America, India and Cambodia), self-help groups (in Africa and India), street vendor organizations (in Peru) and community-based organizations (in Pakistan, Bangladesh and South Africa) (Chen et al., 2006). A parallel example is provided by workers in Cambodia's dominant garment industry (see Box 5).

From another perspective, tax-funded schemes providing subsidies for the poor are generally means-tested and the beneficiaries identified for eligibility. One approach to obtaining coverage of a section of non-poor informal workers may be to extend the income and asset eligibility criteria to a level significantly above the poverty line. A similar approach is to include identified sections of the population along with the poor.

When Viet Nam introduced compulsory health insurance for the formal sector in 1992, "meritorious persons" as well as people with disabilities,

orphans, the elderly and people living with HIV/AIDS were included with fully subsidized premiums while employees contributed 2% of their salaries (Ekman et al., 2008). Voluntary health insurance was introduced in 1994 for all those outside the compulsory scheme, including non-poor informal workers, the self-employed, students and school children, and dependents of compulsory scheme members, paying a maximum premium of 6% of the national minimum wage. A scheme for the poor and ethnic minorities with fully subsidized premiums was added in 1999, and became the Health Care Fund for the Poor in 2002.

Allowing a voluntary opt-in premium payment (full or subsidized) to national SHI schemes has been adopted in some cases. Previously, Thailand offered voluntary enrolment to non-poor informal workers with the voluntary health card scheme (VHCS) from 1991, but the programme failed due mainly to adverse selection and abuse of procedures. In the Philippines, the IPP attracted mainly the chronically ill and those with higher utilization rates than the average PhilHealth beneficiary (Tangcharoensathien et al., 2011). In Viet Nam, farmers and informal-sector workers (which includes the self-employed and wage employees without a contract or with a contract that runs for less than three months), have the option to enrol in the national SHI scheme implemented by Viet Nam Social Security, but few do. Coverage in 2012 was around 26% of this group in total and was much lower among farmers (Wagstaff et al., 2014).

Evidence from the Philippines and Viet Nam indicates that premium subsidies, even when tied to a targeted information campaign, are not sufficient on their own to change enrolment patterns significantly. A randomized controlled trial in the Philippines showed that simplifying the enrolment process by providing help to complete the forms in the home, taking the forms to the SHI agency's office on behalf of the family and having the identity card mailed to the family were far more effective measures than promising a premium subsidy (Capuno et al., 2014). Findings from a randomized controlled trial in 20 communes in each of two rural districts in Viet Nam indicated that there is limited scope for raising voluntary enrolment rates in established SHI schemes by providing a combination of information campaigns and partial subsidies (25% of premium cost) for potential beneficiaries (Wagstaff et al., 2014).

In many countries, vertical disease control programmes are implemented without patient charges and are funded from budget or donor sources. Immunization, infectious disease control and HIV/AIDS control and treatment fall into this category. In a similar way, governments may choose to provide certain services free at the point of service, funded through taxation, such

as primary care services or maternal and child health care. This may help to avoid breaching budget constraints but provide a large proportion of the population (including non-poor informal workers) with coverage for basic services.

The most commonly used approach, however, is to provide voluntary insurance to fill gaps in coverage. In principle, voluntary prepayment may include different types of community-based health insurance (CBHI) and, in some cases, private insurance, but the voluntary approach continues to experience severe limitations. The challenge is to find the means to collect contributions from that segment of the population that has the ability to pay (McIntyre et al., 2013): for non-poor informal workers, planners must find a way to set premiums at a level that is low enough to encourage enrolment but not so low that the scheme will be financially unsustainable or cannot offer an attractive benefit package (Comrie-Thomson, 2012).

Acharya et al. (2013) found that enrolment in voluntary schemes in Africa was low overall despite the low level of premiums and noted the absence of strong evidence of impact on utilization, financial protection or health status. Similar findings have been reported in Ghana, the United Republic of Tanzania and Viet Nam (Kurimoto et al., 2013). Mills (2007) argues that achieving a satisfactory level of population coverage for effective service delivery and financial sustainability remains the main challenge for contributory schemes, particularly those that are voluntary.

In many countries, CBHI schemes of one sort or another have been implemented to cover non-poor informal workers, where premium contributions are voluntary. Generally, these schemes have suffered from low enrolment and adverse selection (see Box 6). From 2001 the Government of Lao People's Democratic Republic attempted to construct a national

Box 6. Community-based health insurance: lessons learned

The evidence demonstrates that CBHI may fill a coverage gap in certain local communities but cannot be used as a national prepayment scheme and is not appropriate for broad coverage of non-poor informal workers.

Coverage of the target population is generally low, the schemes tend to cover a very limited benefit package, members come mainly from higher socioeconomic groups and to be sicker than the rest of the population, and the small risk pool threatens financial viability (Chuma et al., 2013).

Box 6. Community-based health insurance: lessons learned (cont.)

A review by Acharya et al. (2013) found that CBHI enrolment was low overall despite the low premiums and there was no strong evidence of any impact on utilization, financial protection or health status.

Coverage reaches a significant proportion of the population only in a few cases and under certain conditions (in particular, a strong and lasting community base).

But there are other shortcomings:

‘While getting the poor to join CBHI schemes seems likely to promote their access to basic services, it is not clear that this is the best strategy through which to promote the progressive distribution of subsidies’ (Bennett, 2004).

‘From a systems perspective, community health insurance may result in poorer groups contributing to their health care costs to a greater extent than richer groups who are able to access public services, and thus may be inequitable with respect to payment’ (Mills, 2007).

The experience of SEWA in Bangladesh is perhaps the best example of an effective CBHI scheme, built on SEWA’s extensive social base. Nonetheless, researchers conclude that even a well-intentioned scheme may have an undesirable distributional impact, particularly if the scheme does not address the major barriers to accessing (inpatient) health care and the process of seeking reimbursement under the scheme is burdensome for the poor (Ranson et al., 2006).

Low levels of enrolment and a selection bias towards the ill mean that risk pool, and the ability to spread risk, are restricted.

In some countries several CBHI schemes have operated simultaneously, which has led to the further fragmentation of risk pools. Chuma et al., (2013) found CBHI schemes in sub-Saharan Africa to have low population coverage, narrow coverage of services and a shallow coverage of costs.

voluntary scheme using CBHI principles but has achieved an enrolment rate of only 5% of the target population (Ahmed et al., 2013). Rwanda has the most successful national scheme, with high levels of coverage and an approach that now makes enrolment mandatory. Both Chuma et al. (2013) and Bitran

(2014) found CBHI schemes to be largely ineffective in achieving coverage and providing financial protection to non-poor informal workers unless there was mandatory enrolment with strong incentives as part of a wider national scheme and the government made an explicit commitment to support and to scale-up the schemes.

One approach has been to subsidize premium payments to voluntary schemes. For the New Rural Cooperative Medical Scheme (NRCMS), China subsidizes on average 80% of premiums for rural residents (Liu et al., 2015). Subsidies may be effective when they cover a very large proportion of the premium. Nonetheless, partial subsidization can be very difficult to implement as incomes of non-poor informal workers are difficult to estimate, and the overhead costs of identifying members and collecting contributions can be high. The approach works best where there are clear economic, social and political incentives to make premium payments (as for Rwanda's *mutuelles de santé*).

Challenges that confront voluntary contribution schemes for non-poor informal workers include a lack of understanding and acceptance of the concept of health insurance, high mobility within the target group, the seasonal nature of incomes, poor technical design and a limited level of government support, (Chuma, et al., 2013). Enrolment has been found to vary with level of income, previous health history and purchaser perceptions (Acharya et al., 2012). Because family income is variable, regular premium payments are difficult to sustain, and designing an appropriate premium level and benefit package has been challenging in many countries (Acharya et al., 2013; JLN et al., 2013). The relatively high cost of premium collection is another challenge, with agents generally having to go door-to-door to ensure collection (Chuma et al., 2013).

It appears that relying on contributory prepayment mechanisms is not sufficient for expanding coverage of non-poor informal workers, and even in the case of mandatory schemes substantial funding through tax revenue is required. Researchers are therefore questioning the efficiency of requiring premiums from non-poor informal workers given the high costs associated with collection (Bitran, 2014; McIntyre et al., 2013; Kurimoto et al., 2013; Comrie-Thomson, 2012).



Expanding coverage of non-poor informal workers

Moving away from voluntary contributions and providing strong incentives for enrolment both establish the basis for expanding coverage of non-poor informal workers. Enrolling all non-poor informal workers through links with citizenship or residence appears to be efficient, though it generally requires the introduction of a single citizenship identity number (JLN et al., 2013). One factor instrumental in Thailand's success was the creation of a reliable, centralized and regularly updated database to cover the entire population. China and the Philippines have similarly created a unique social security number for every citizen. In the Philippines, various approaches to enforcing enrolment for the non-poor in the informal sector have been trialled, such as requiring proof of PhilHealth membership to obtain and renew driving, business, and other professional licenses. In Rwanda, the central Government sets enrolment targets and financial incentives for local governments (JLN et al., 2013).

Reducing the beneficiary costs and time associated with enrolment by making it more convenient has been successful in expanding membership; the costs of identity photos, photocopies and travelling time for enrolment have been cited as barriers for enrolment among participants. Strategies that have shown some success include door-to-door visits by local officials (China).

Shortages and gaps in the supply of health services often discourage enrolment in insurance schemes and utilization of services even where costs are fully subsidized. This occurs in some cases due to costs associated with obtaining health benefit identification cards provided by the scheme. In other cases it occurs because the quality of health care provided at participating health facilities is below the expectation held by members of the scheme. Studies in Ghana, India, Indonesia, United Republic of Tanzania and Viet Nam have found poor treatment of insured members and a demand by providers for informal fees (Kurimoto et al., 2013; McIntyre et al., 2013); this treatment has led to high drop out and low enrolment rates in these countries.

Improving the supply of services and the quality of health care is essential to support the increased demand created by coverage of non-poor informal workers and other scheme beneficiaries (Kurimoto et al., 2013; JLN et al., 2013; Bitran, 2014). Thailand, for example, invested in strengthening its primary health care *before* expanding coverage. Studies have found that beneficiaries' perception of the low quality of services is responsible for a reluctance to enrol in prepayment schemes in Cambodia, Viet Nam and elsewhere (JLN et al., 2013; Nguyen et al., 2013; Acharya et al., 2012). Low quality of services is associated with poor access, low utilization and high out-of-pocket payments despite sometimes wide coverage (Kurimoto et al., 2013; McIntyre et al., 2013). Some countries, such as Cambodia and Rwanda, are experimenting with innovative programmes built into prepayment schemes, such as giving incentives to health-care providers to improve quality as part of a pay-for-performance package.

Educating and informing the target population about their eligibility and the nature of prepayment schemes improves commitment and performance (Kurimoto et al., 2013). Acharya et al. (2013) found enrolment to be related to education, perceptions and cultural factors rather than initial health status and distance to health centres. Kurimoto et al. (2013) also found that unclear criteria for those receiving subsidies and lack of awareness of eligibility and benefits deterred enrolment; in Rwanda, the involvement of religious groups and NGOs assisted in awareness raising and extending coverage.

The timing and scheduling of contributions affect enrolment and continuity of membership. To improve premium collection and lower the drop-out rate, strategies have included providing a flexible and/or seasonal payment schedule (Kurimoto et al., 2013; JLN et al., 2013), for example by structuring the premium collection schedule for farmers to follow the harvest. Kenya and the Philippines are exploring mobile phone payments to reduce the time and cost associated with fixed-place payments; community groups and associations have also been used to collect premiums in the Philippines (JLN et al., 2013).

One approach is to provide for differential premiums designed to match incomes in order to address the heterogeneity of non-poor informal workers (JLN et al., 2013). Rwanda and Viet Nam are considering the implementation of a stratified contributions system according to ability to pay. However, determining the level of differential rates is administratively costly and requires good data. Many countries have thus found it easier to start with a flat-fee contribution. Different aspects including the frequency of contributions, extent of copayments and reimbursement policies might affect utilization and uptake (JLN et al., 2013; Acharya et al., 2013). Acharya et al. (2013) cite

high-income country research showing that mechanisms for copayments, expectations of reimbursement policies and the presence of other financial mechanisms affect uptake, utilization and health status.

Establishment of a single, centralized administrative agency to manage funds and schemes from the start has been found to be the most effective way of ensuring cross-subsidization and reducing fragmentation of risk pools (Kurimoto et al., 2013). A number of countries have moved to a single, central risk pool, including Mongolia, the Philippines, and the Republic of Korea; China will do so by 2020. Indonesia and Rwanda began with fragmented schemes, covering different populations, managed by different agencies and offering different benefits, but are now consolidating them into a national scheme. Once pools are separate, it has been found to be difficult to integrate them, as in Thailand, United Republic of Tanzania and in some Latin American countries, due to opposition from those members with higher contributions and/or superior benefits, who fear dilution of their funds (McIntyre et al., 2013).



Conclusions

Extending coverage to non-poor informal workers is a particular challenge within the broader context of expanding universal health coverage. Both require national intervention and national reform, and tasks sometimes overlap.

The critical questions are whether governments make a commitment to providing coverage universally; whether the fiscal space or capacity exists to enable governments to fund prepayment programmes; and whether the political leadership exists to enable the implementation of effective programmes.

Political leadership and commitment is necessary for national reform (e.g. Ghana, Thailand), and taking advantage of windows of opportunity such as elections is critical to achieving success (Thailand; McIntyre et al., 2013). The adoption of appropriate legislation is necessary, though not sufficient; Kurimoto et al. (2013) concluded that legislation helped in establishing the necessary administrative and organizational structures.

The financial viability of prepayment schemes may also be threatened where there are inadequate subsidies from government or external sources. The alternative is to design coverage schemes for non-poor informal workers that combine the elements of contributory and non-contributory approaches. Even so, a significant level of tax-based funding will be needed to underwrite such schemes financially. Such an approach may be characterized by direct government subsidies at the point of service delivery (as in Thailand) or a system of publicly subsidized premiums within a social insurance framework (as in the Philippines).

Whether it is efficient to establish contributory schemes for those outside formal employment in situations in which tax funding is not sufficient remains unclear. In Ghana, for example, contributions from non-poor informal workers account for only 5% of total national health insurance revenues (McIntyre et

al., 2013). There has been a call for more research on the efficiency of these contributory schemes that takes into account the cost of collections and net revenue generated (Chuma et al., 2013); others make a case for collecting contributions, even if small, to reduce incentives that promote informality (Bitran, 2014).

The content and level of the benefit package to be provided to non-poor informal workers need careful consideration, with implications for both premium levels and the extent of tax funding required. China provides a limited benefit package for NRCMS beneficiaries. Ghana covers a wide range of inpatient and outpatient care, including essential medicines, with no copayments, the package is considered financially unsustainable (Chuma et al., 2013). Rwanda has a less comprehensive package, with all basic services being covered and some tertiary services included; however, patients are required to pay an additional flat fee per visit to the doctor and 10% of hospital costs (Chuma et al., 2013).

One factor attributed to the successful Thai model is the capacity and strength of the National Health Security Office, which manages the UCS and purchases health services. As a purchasing agency, its independence from the provider and the Ministry of Health is considered to be an important factor determining its success (Bates, 2012; Bates and Annear, 2013). This remains a sensitive issue in many countries, and documenting how best to achieve such a situation remains an important question.

Achieving universal coverage is a long-term process that involves innovation, continuous improvement and a process of trial and error (McIntyre et al., 2013). The Thai experience demonstrates that the evidence-based approach built on learning from experience is a means to strengthen the implementation of effective schemes to cover non-poor informal workers. Many researchers and policy-makers have concluded that tax-based approaches are the most effective. Providing coverage for non-poor informal workers – whatever form that takes – must therefore be seen as a question of national political priority. Placing coverage of non-poor informal workers within the context of a comprehensive national health financing strategy provides the best means of tackling the most demanding issues and providing coverage as one part of the broader universal coverage agenda.



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