

UNIVERSAL HEALTH COVERAGE AND THE CHALLENGE OF INFORMAL EMPLOYMENT:

Lessons from Developing Countries

Ricardo Bitran

January 2014



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Health, Nutrition, and Population (HNP) Discussion Paper

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Health, Nutrition, and Population (HNP) Discussion Paper

Universal Health Coverage and the Challenge of Informal Employment: *Lessons from Developing Countries*

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Abstract: This report has been written for developing countries' policy makers and individuals in the development community who are actively engaged in efforts to achieve universal health coverage (UHC). The aim of the report is to review existing approaches and available policy options to improve access to health care services and financial protection against health shocks for informal-sector workers (ISWs). Along with their families, ISWs represent the majority of the population in many developing countries. The report reviews the definition and measurement of the informal sector and the literature on efforts toward its health insurance coverage. It also examines several country cases based on published and unpublished reports and on structured interviews of expert informants. Developing country efforts to expand health coverage are characterized by a common enrollment and financing pattern, starting with formal-sector workers and following with government-subsidized enrollment of the poor. Thus, ISWs are typically left behind and have been referred to as “the missing middle.” They find themselves financially unprotected against health shocks and with limited access to quality and timely health care. ISWs are generally reluctant to enroll in insurance schemes, including social health insurance (SHI), community insurance, and other arrangements. Further, initiatives to enroll them in self-financed contributory schemes have generally resulted in adverse selection, as those with high anticipated health needs are more willing to pay and enroll than others, thus threatening the schemes' financial viability. Successful initiatives to cover this population group are the ones where government has abandoned its expectations to derive relatively substantial revenue from it. Offering this group a benefits package that is relatively smaller than that of formal workers and charging them a premium that is only a fraction of that charged to formal workers is a strategy used by some countries to limit the need for public subsidies. Switching from SHI to a tax-financed system is an alternative strategy adopted by others. While there is evidence that greater insurance coverage has improved access to health services for ISWs and their dependents, in several countries it has not yet improved financial protection for this target group. A broad set of reforms will be required to strengthen the supply side to ensure that additional public financing translates into improved coverage for ISWs. Finally, large and sustained economic growth is indispensable to achieve UHC, as it creates the public resources to subsidize coverage for the poor and ISWs.

Keywords: Universal health coverage, informal sector workers, social health insurance.

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Abbreviations

BPL	Below the Poverty Line
CASEN	National Socioeconomic Characterization Survey (Chile)
CBHI	Community-Based Health Insurance
CCT	Conditional Cash Transfer
CMS	Cooperative Medical Scheme
CR	Contributory Regime
CSR	Contributory Subsidized Regime
DHS	Demographic and Health Surveys
EPS	Health Promoting Enterprises, <i>Empresas Promotoras de Salud</i>
Fonasa	National Health Fund (Chile)
GDP	Gross Domestic Product
GSHIS	Government-Sponsored Health Insurance Scheme
HEF	Health Equity Funds
ILO	International Labour Organization
IMSS	Mexican Institute for Social Security
ISSSTE	Institute for Social Security and Services for Civil Servants
MFA	Medical Financial Assistance
MLS	Minimum Legal Salary
MOH	Ministry of Health
NHIS	National Health Insurance Scheme
NRCMS	New Rural Cooperative Medical Scheme
OOPS	Out-Of-Pocket Spending
PDR	People's Democratic Republic
PEAS	Essential Health Insurance Plan, <i>Plan Esencial de Aseguramiento en Salud</i>
PhilHealth	Philippine Health Insurance Corporation
PPP	Purchasing Power Parity
RSBY	Health Insurance Scheme, <i>Rashtriya Swasthya Bima Yojana</i>
SEWA	Self-Employed Women Association
SHI	Social Health Insurance
SIS	Integral Health Insurance
SISFOH	Household Targeting System, <i>Sistema de Focalización de Hogares</i>

SR	Subsidize Regime
SSFAM	Family Health Insurance, <i>Seguro de Salud para la Familia</i>
SSNIT	Social Security and National Insurance Trust
SSPH	System of Social Protection in Health
UCS	Universal Coverage Scheme
UEBMI	Urban Employee Basic Medical Insurance
UHC	Universal Health Coverage
URBMI	Urban Resident Basic Medical Insurance
WHO	World Health Organization

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I. INTRODUCTION

Achieving universal health coverage (UHC) has long been a social aspiration of most nations and is currently a top health policy priority around the developing world. Low- and middle-income countries as diverse as Ghana, Peru, and Vietnam are striving to expand health insurance coverage for their populations. Upper-middle-income nations, such as Colombia, Costa Rica, and Thailand have already claimed success.

The quest for UHC has also been promoted by international development organizations, which have recently embraced UHC. The Director General of the World Health Organization (WHO) has stated that UHC “is the single most powerful concept that public health has to offer.” The *World Health Report 2010* focused exclusively on this question (World Health Organization 2010). The influential journal *The Lancet* in 2012 devoted a full issue to UHC.

There is no single definition of UHC, but available definitions overlap in that UHC involves the extension of health insurance to all citizens, improves accessibility to needed health services by all, and provides financial protection against the costs of health shocks (Cotlear 2012). There is therefore some room for interpretation of the concept of UHC, particularly as regards the breadth of the benefits package delivered by the insurer, but also in relation to the extent of financial coverage conferred by the health system.

Efforts to achieve UHC are characterized by increasing needs for public financing. For example, in Colombia, total health expenditure as a percentage of gross domestic product (GDP) increased considerably following the 1994 reform to achieve UHC — from 7.4 percent in 1995 to close to 10.0 percent in 1997. Vietnam, which set out to achieve UHC in 1993, experienced a four-fold increase in real per capita total health expenditure between 1995 and 2009. In Ghana, the implementation of the National Health Insurance Scheme in late 2005 led to a significant expansion in total health expenditure as a share of GDP, reaching 10.6 percent in 2007 (Bitrán 2012b).

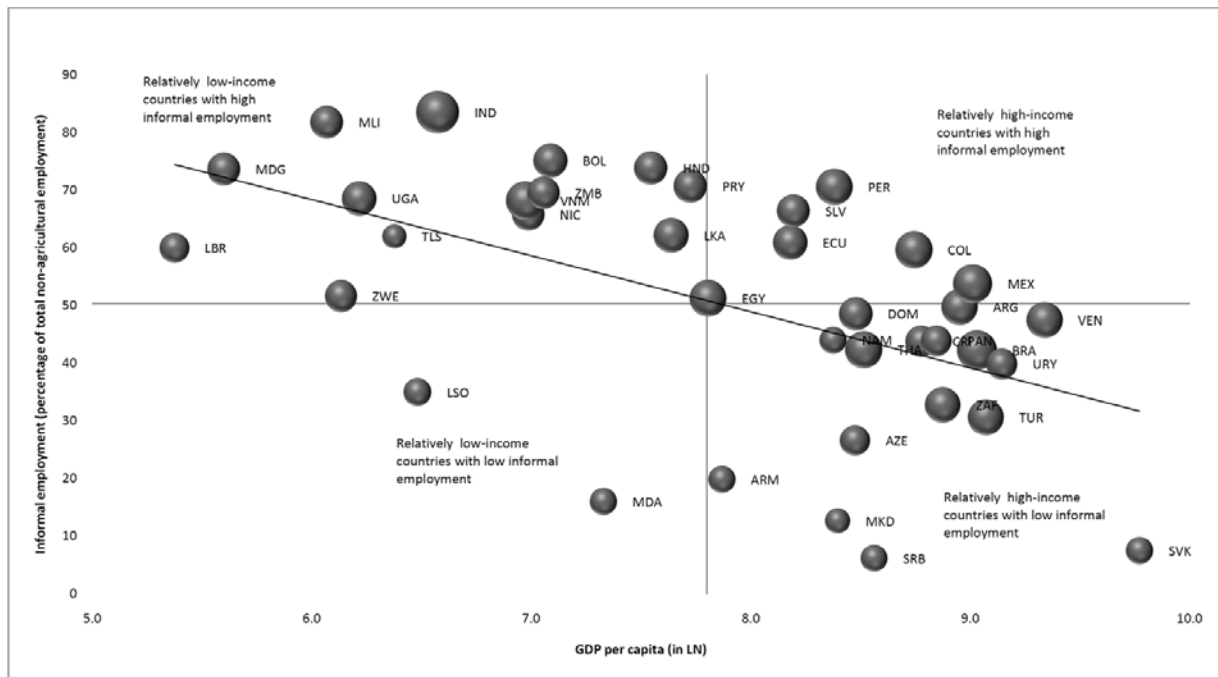
The additional revenue required by UHC poses a challenge to governments. Relying on user payments to bridge financing gaps in public financing is not an advisable option. While user fees raise revenue to improve health workers’ pay and quality of care, they may deter access, particularly for the poor, and thereby render UHC infeasible. Implementing effective systems of waivers for the poor has been shown to be administratively very difficult in low-income settings, and therefore a system of charging user fees selectively to the nonpoor is hard to implement (Bitrán and Giedion 2003). Additional public revenue for health is essential, and may be obtained from reallocations to the health sector away from other sectors or from additional revenue.¹ Where additional revenue sources are required, governments may increase taxes or, in countries that have social health insurance (SHI), they may raise extra revenue from social security contributions (International Labour Organization 2008).

1. Countries may also borrow domestically or internationally to finance coverage expansion, but eventually they will require own public resources to repay any such loans. In theory, countries may also achieve gains in the efficiency of government health spending, although in practice, such gains are hard to materialize and unlikely to be of a meaningful magnitude to finance coverage expansion efforts.

Irrespective of the intended source of additional public funding — general taxes or SHI contributions — developing countries face the formidable challenge of raising the needed extra revenue in a scenario in which a large share of the labor force is employed in the informal sector of the economy. Informal sector workers are individuals who lack a work contract and who tend not to belong, or contribute, to SHI. These individuals may also evade income taxes as national and local tax institutions may be unable to assess, and therefore tax, their incomes.

There is a statistical negative relationship between GDP per capita and informal employment (International Labour Organization 2011): richer countries tend to have a smaller proportion of informality than poorer ones, suggesting that over the long term, as countries become richer, their informal employment will fall (see figure 1). Yet over the next few decades, most developing countries will continue to face the problem of a large informal sector and the associated limited ability to raise public revenue from income- and labor-related taxes. Further, informal employment not only accounts for the majority of all employment in developing countries, but in many countries its numbers have been growing. In this context, the kinds of health coverage improvements that countries will be able to afford will be limited by available public resources. When they achieve, or claim that they have achieved, UHC will depend on their efforts to expend public financing for health and on their each country's own definition of such a concept.

Figure 1 Informal Employment and GDP Per Capita in 38 Countries



Source: ILO, Department of Statistics (See Table I for details), and IMF, World Economic Outlook

This graph shows for each country the percentage of informal employment in total non-agricultural employment and the value of income per capita (expressed in natural logarithm). Country names have been abbreviated due to space constraints. The axis passes through the unweighted sample means. A linear trend line is depicted, and the size of the bubbles reflects the size of total informal employment (in logarithms). Only countries with data on persons in informal employment have been included. GDP data correspond to the same year as latest year available on employment in the informal economy.

Source: International Labour Organization 2011.

The remainder of this paper is organized as follows. Section 2 presents the internationally accepted definition of informal employment. Section 3 reviews statistics from the developing world about informal employment, assesses their economic significance, examines evidence about the income of informal sector workers, and presents possible causes of informality. Section 4 is a review of the published and unpublished literature on the challenges of and strategies for providing health insurance for those employed in the informal sector and their families. Section 5 documents the efforts of several countries to cover the informally employed. The first half of section 5 presents eight country cases and thematic reviews drawn exclusively from the published and unpublished literature. These include a review of previous studies of insurance for informal sector workers, studies of community-based health insurance (CBHI) in Africa, CBHI in India, government-sponsored health insurance schemes (GSHIS) in India, and health insurance reform in China, Korea, and Indonesia. The second half of section 5 presents an additional eight country cases covering three regions of the developing world to illustrate additional policy approaches and results related to the provision of health coverage for informal sector workers and their families. These eight cases draw mainly from structured interviews conducted by this author of expert country informants, with supplemental information from the literature. Section 6 offers conclusions.

II. METHODOLOGY

2.1. DEFINITION OF INFORMAL SECTOR

The informal sector has been defined in various ways. This paper uses the definition adopted by the International Labour Organization (ILO) in 1993 to measure the size and scope of the informal sector in all countries around the world (Fifteenth International Conference of Labour Statisticians 1993). It states that the informal sector is composed of entities engaged in the production of goods or services with the main objective of generating employment and income. These entities tend to operate at a low level of organization, with little or no division between labor and capital, and on a small scale. Labor relations are based mostly on casual employment, kinship, or personal and social relations, not on contractual arrangements with formal guarantees.

According to the ILO, informal sector production units have the following characteristic features of household enterprises: (a) fixed and other assets used do not belong to the production units but to their owners; (b) units cannot engage in transactions or contracts with other units, nor incur liabilities, on their own behalf; (c) owners must raise needed financing at their own risk and are personally liable, without limit, for any debts; (d) expenditure for production is often indistinguishable from household expenditure; and (e) capital goods (buildings, vehicles, and so forth) may be used indistinguishably for business and household purposes.

Informal sector entities do not necessarily function deliberately to evade payment of taxes or social security contributions, or infringe on labor or other legislation or administrative provisions. Informal sector activities should be distinguished from the concept of activities of the hidden or underground economy.

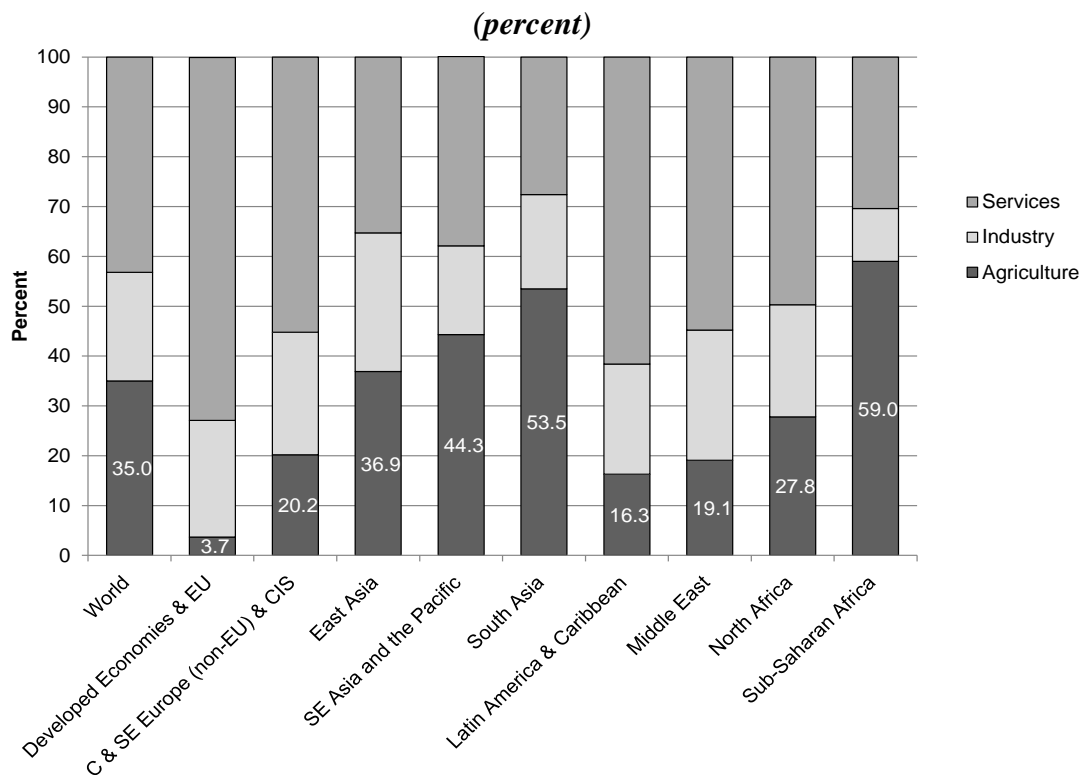
The existence of an informal sector limits the local tax authority's ability to collect revenue. Cobham estimated that, around 2005, developing countries' tax revenue foregone from the

informal economy, including both corporate income taxes from unregistered firms and personal income taxes from informal employment, amounted annually to about US\$285 billion, representing 31percent of all potential tax revenue in developing countries. In addition, there was other tax revenue foregone, including US\$50 billion from offshore asset holding, and another US\$50 billion from corporate profit shifting (Cobham 2005; GTZ 2010), for a total of US\$385 billion.

In most developing countries, the informal sector plays a significant role in employment and income generation, and in economic and social development. Knowledge about the informal sector's size and scope is indispensable for national policy makers, since this may help them design and monitor specific support policies and assistance programs for the informal sector to increase the productive potential and employment- and income-generating capacity of informal sector units; improve the working conditions and social and legal protection of informal sector workers; develop an appropriate regulatory framework and promote the organization of informal sector producers and workers; and analyze the economic and social situation of particular groups of informal sector workers, such as women, children, rural-urban migrants, and immigrants.

In developing countries, the agricultural sector accounts for a large share of total employment (see figure 2). By convention, the measurement of employment in the informal sector excludes the agricultural sector.

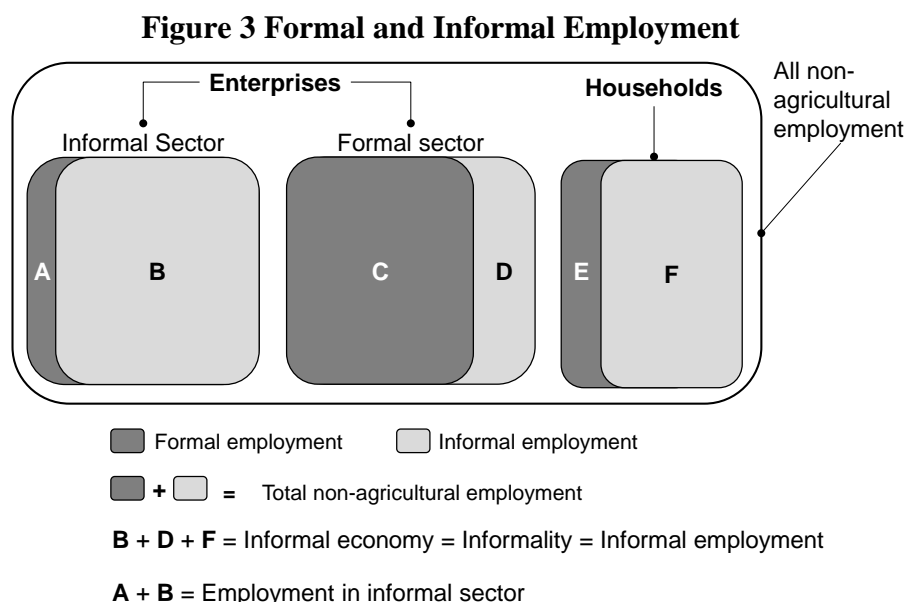
Figure 2 Employment Shares by Sector, World, and Regions



Source: International Labour Organization 2011.

2.2. THE INFORMAL ECONOMY

According to the ILO, the *informal economy* refers to all informal employment in a country or region. It has two components: (1) employment in the informal sector as defined by the Fifteenth International Conference on Labor Statisticians, and (2) other forms of informal employment (that is, informal employment outside the informal sector, including in formal sector firms and households) (International Labour Organization 2002). In much of the literature, and in this report, the following are synonyms: *informality*, *informal economy*, and *informal employment*. Figure 3 illustrates these concepts.



Source: Author.

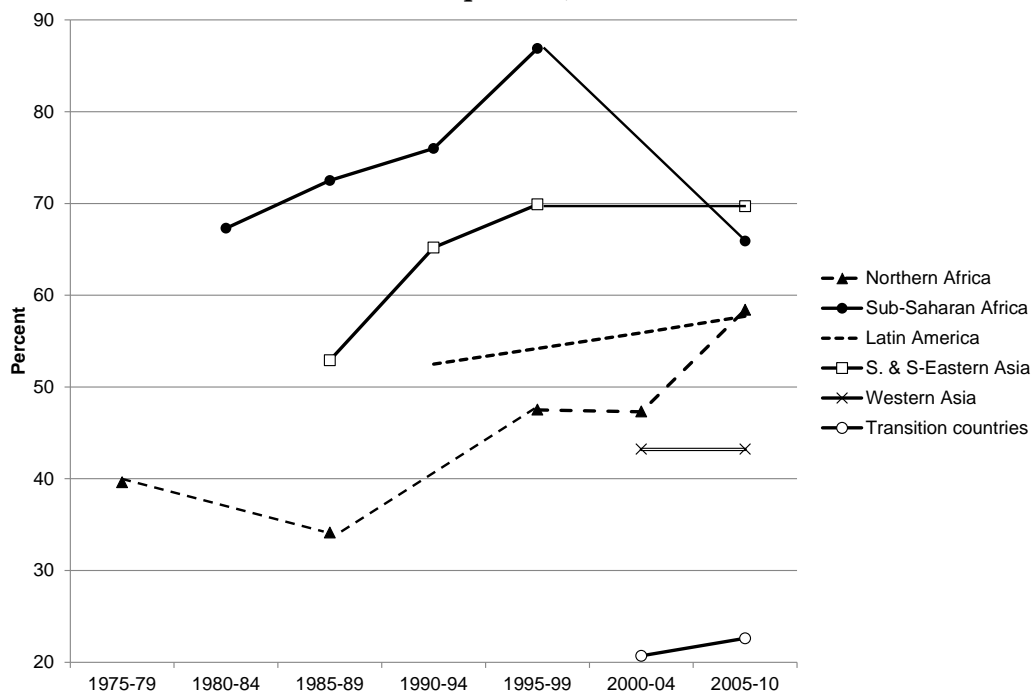
To sum up, employment in the informal sector is an enterprise-based concept, which is defined as jobs in unregistered or small, unincorporated private enterprises. Such enterprises are not constituted as separate legal entities (thus are not officially registered) and do not maintain a complete set of accounts. The majority of employment in the informal sector is informal employment, but there may be some formal employment as well.

Informal employment is a job-based concept and encompasses those jobs that generally lack basic social or legal protections or employment benefits; however, such jobs may be found in the formal sector, informal sector, or in households.

III. SIZE AND SCOPE OF INFORMAL EMPLOYMENT

Charmes (2012) analyzed trends in informal employment in five-year periods over the last four decades. He cautioned the reader that his analysis was based on nonagricultural employment only, using various procedures and sources of data over time; different sets of countries were included in each region of the world in each study period. Overall, he found that in four of the six regions of the developing world, informal employment grew over time (figure 4); it remained stable in Western Asia but fell in Sub-Saharan Africa between the mid-to-late 1990s and the mid-to-late 2000s.

Figure 4 Share of Informal Employment in Total Nonagricultural Employment by Region (percent)



Source: Charmes 2012.

In Northern Africa, informal employment grew significantly over the entire period, although it had intermediate fluctuations. Charmes noted that estimates for this region of the world were the most numerous over the four decades, and that the trend illustrates the countercyclical behavior of informal employment: it increases when the rate of economic growth is decelerating, and contracts when the rate of growth increases.

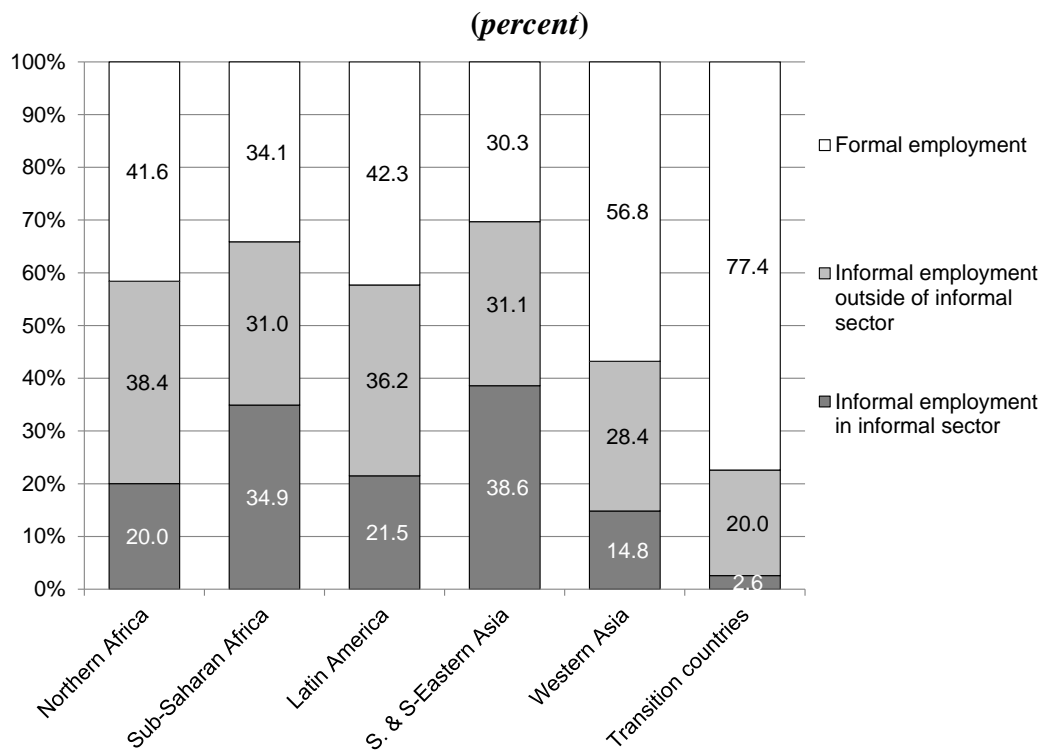
Former Soviet-style economies that are transitioning to more free market-oriented systems have experienced an increase in informal employment because the shrinking of government-based jobs has not been offset by growth in formal, private employment.

The notable drop in informal employment in Sub-Saharan Africa may be attributable to the high rate of economic growth of 4.6 percent per year in the most recent decade, compared with lower growth in the past, when informal employment was on the increase.

In Latin America, informal employment seems on the rise, increasing from 54.2 percent at the end of the 1990s to 57.7 percent at the end of the 2000s, even if this trend could be decelerating in the last period: most countries for which an estimate is available for the first half of the 2000s have seen employment in the informal economy decrease in the second half (except Mexico and Peru).

Charmes (2012) also examined the share of informal employment coming from within and outside the informal sector. He found that in four of the six regions of the developing world under study, the majority of informal employment came from outside the informal sector, that is, from formal sector firms and from households. In Northern Africa, Latin America, and Western Asia about two-thirds of informal employment came from formal sector firms and households (figure 5). In transition countries, a mere 11 percent of informal employment came from the informal sector, and 89 percent came from outside of it. Only in Sub-Saharan Africa and South and Southeastern Asia did the share of informal employment originating in the informal sector exceed that coming from outside the informal sector.

Figure 5 Formal and Informal Employment by Region, 2005–10



Source: Author's calculations based on data in Charmes (2012).

A 2011 ILO report provided statistics on informal employment from 47 low- and medium-income countries (International Labour Organization 2011). It found that in 15 countries, informal employment accounted for more than two-thirds of total nonagricultural employment; Central and Eastern European countries featured the lowest proportion of informal employment; in all but two countries, the bulk of informal employment was concentrated in the informal sector; in 30 of the 41 countries with data disaggregated by gender, the proportion of women in

informal employment exceeded that of men; in the largest developing countries, the percentage of women in informal employment in manufacturing activities was usually much higher than that of men;² and cross-country data suggested that informal employment was paired with low-income per capita and high poverty rates.

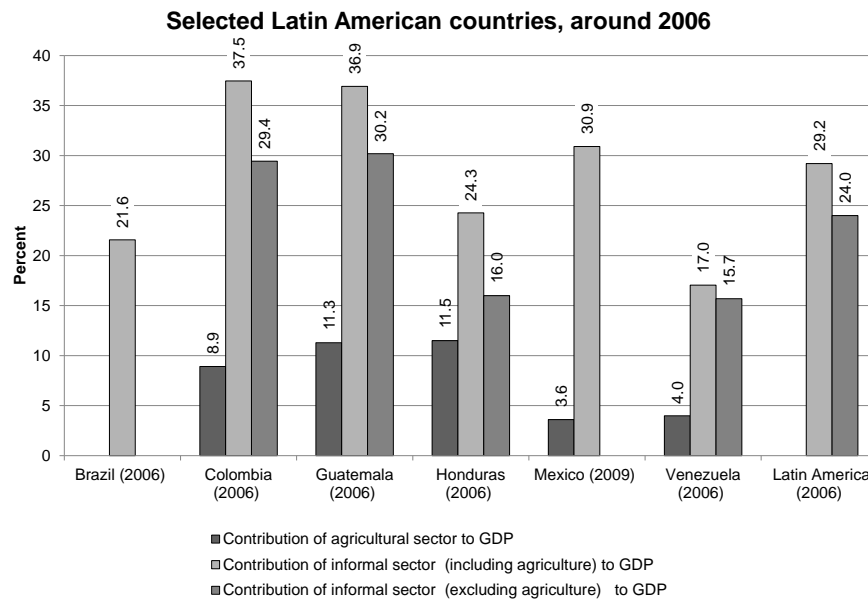
2. In Brazil, 48.6 percent of women have an informal job in manufacturing compared to 31.7 percent of men; in India, the share of women with informal employment in the manufacturing sector reaches 94 percent.

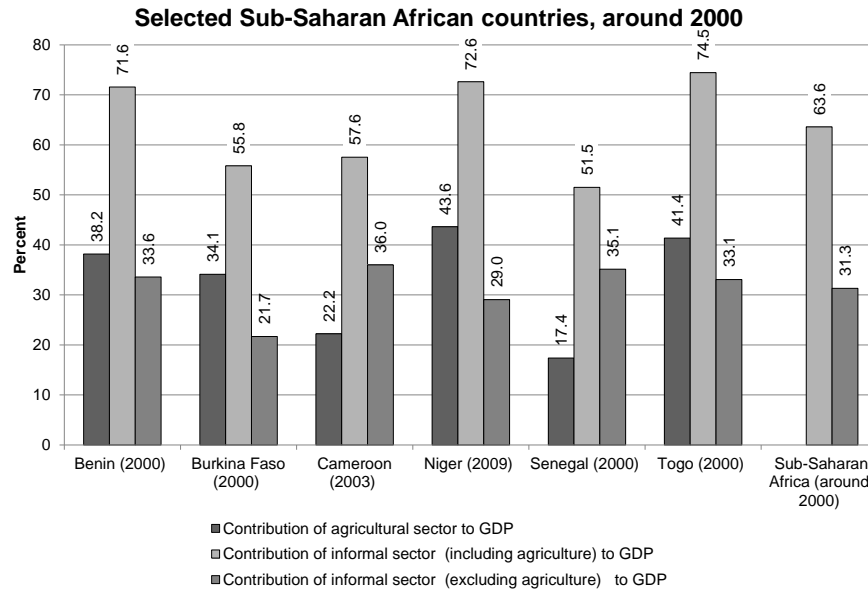
3.1. ECONOMIC SIGNIFICANCE OF INFORMAL EMPLOYMENT

As already noted, the relatively high contribution of the agricultural sector to employment in developing countries, and the high share of informal employment in that sector, makes it advisable to examine trends in informal employment outside of agriculture. For the same reason it is useful to examine the contribution of the informal sector to GDP outside of the agricultural sector. The figures below present this information for selected countries from two contrasting regions of the developing world, Latin America and Sub-Saharan Africa.

In Latin America, the informal sector's contribution to nonagricultural GDP varies from a low of 16 percent in Venezuela to a high of 30 percent in Colombia and Guatemala. The relatively small economic significance of the agricultural sector in most of these countries (compared with Sub-Saharan Africa) implies that the informal sector's contribution to GDP does not change much whether the agricultural sector is included or excluded from it. An exception is Honduras, where about one-third of the informal sector's output comes from agriculture; excluding the agricultural sector reduces the informal sector's contribution to GDP from 24.3 percent to 16.0 percent.

Figure 6 Contribution of Agricultural and Informal Sectors to GDP in Two Regions of the Developing World
(percent)





Source: Charmes 2012.

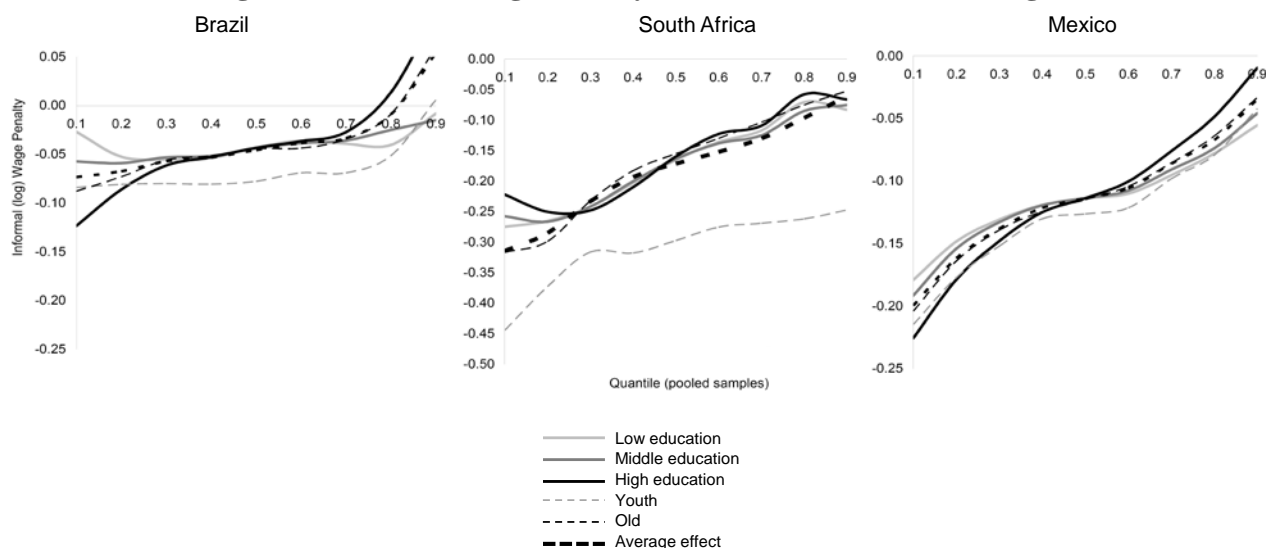
In Sub-Saharan Africa, the contribution of the informal sector to nonagricultural GDP varies from a low of 22 percent in Burkina Faso to a high of 36 percent in Cameroon. In this region, the agricultural sector accounts for a much larger share of total GDP; therefore the share of informal sector GDP from agriculture is relatively large in all countries.

3.2. INCOME OF INFORMAL SECTOR WORKERS

Bargain and Kwenda (2009) examined the existence of the wage gap, or so-called “informal wage penalty,” a phenomenon by which informal sector workers would receive lower after-tax wages than equivalent formally employed workers. In their empirical work they used quantile regressions and large panel datasets from Brazil, South Africa, and Mexico to estimate the wage gap between informal and formal salary workers, accounting for taxes paid in formal employment and for differences in workers’ age and education levels. They found that younger workers face larger penalties, especially in Brazil and South Africa (figure 7), a result that is in line with previous research. Education levels seem to affect the wage gap only at the two extremes of the distribution.

At the top, the informal wage penalty is smaller in all countries — and even turns into a premium in Brazil — for those with higher education. This could be similarity of characteristics between the top informal workers and their formal sector counterparts. In the lower part of the distribution, a larger penalty is observed for high education groups in Brazil and Mexico. This possibly reflects that education has a higher return in the formal sector, either because it acts as a signaling device or because this sector is capital-intensive and pays high rewards for complementing capital inputs.

Figure 7 Informal Wage Penalty: Effect of Education and Age



Source: Bargain and Kwenda 2009.

3.3. THE CAUSES OF INFORMALITY

There is a rich literature about the determinants of labor informality; Latin America is often a region of interest in this area (Albrecht, Navarro, and Vroman 2009; Dabla-Norris, Gradstein, and Inchauste 2008; Loayza 1996; Perry, Maloney et al. 2007; Ulyseas 2010). What follows is an enumeration of the possible causes cited in an earlier publication by the ILO (2002) that adequately reflects on the findings of the above authors.

Legal and institutional frameworks may influence the extent of informal employment. For example, poorly designed and burdensome rules that involve dealing with corrupt and inefficient bureaucracies increase transaction costs for potential entrepreneurs, discourage compliance, impede economic participation, and encourage endemic corruption, thus discouraging entrepreneurs from participating in the formal economy. Transaction costs can include obtaining a license to conduct a business, acquisition of title to land or acquiring a lease, access to credit facilities, labor and social charges, and tax costs. When enterprises are outside the legal and regulatory framework, so too are their workers, who then do not enjoy the protection of the law.

Another key factor influencing the size of the informal economy is economic growth. Some countries have experienced little or no growth in recent decades, while others have concentrated on capital-intensive growth, resulting in growth that is not accompanied by a higher supply of formal employment. In both contexts, not enough jobs are created for all those seeking work, forcing people to find employment or to create their own work in the informal economy.

Economic reforms have also been linked to the growth of informal employment. The stabilization and structural adjustment policies of the 1980s and 1990s are blamed in many countries for their reportedly negative economic and social consequences, including growing poverty, unemployment, and underemployment, and a consequent expansion of the informal economy. The financial crisis in the second half of the 1990s in many Asian economies was also an

important underlying factor. ILO research showed the informal economy expanded under the impact of the financial crisis. In the transition economies, but elsewhere as well, economic restructuring and the downsizing of enterprises led many laid-off workers to the informal economy.

Another factor for informal employment is the pervasiveness of government as an employer in poor countries and the public sector's low wages. This pattern, widespread in Africa, compels civil servants to supplement their meager public salaries with additional income from work in the informal economy.

Poverty has also been blamed as a triggering factor for informal employment, although the link between these two variables is not clear.

Demographic factors are viewed as a cause for growing labor informality. Informal employment expands where formal businesses are unable to absorb the influx of young individuals looking for work.

Population dynamics also contributes to work informality. Labor supply increases locally as a result of an influx of migrants in search of jobs. Limited demand for formal labor leads to more employment in the informal economy. In China, for example, the government has identified the large number of rural-urban migrants (some 60 million) as an important reason for the need to create jobs in the informal economy.

Informality makes health insurance reform difficult, while, on the other hand, health insurance reform may encourage informality. What follows is evidence from the developing world that publicly subsidized provision of health insurance may lead workers to leave the formal sector or to avoid joining it, to circumvent the otherwise mandatory SHI contributions to health.

Camacho, Conover, and Hoyos (2009) studied whether the Colombian government, when instituting and expanding social programs in the early 1990s, inadvertently created incentives for people to become informal. As discussed below, Colombia's 1994 reform created two regimes within the country's SHI system, one to be fully financed from the contributions of its beneficiaries (non-poor working Colombians and their families), and another for the poor that was to be fully subsidized from the nation's treasury and from cross-subsidy from the contributory component. Whereas the contributory regime had until recently a much more comprehensive benefits package than the subsidized regime, this design did create incentives for people to misrepresent their socioeconomic status to qualify for the subsidy. Camacho, Conover, and Hoyos used data from repeated cross-sections of the Colombian Household Survey for periods before and after implementation of the reform. They found robust and consistent estimates of an increase in informal employment between 2 and 4 percentage points attributable to the design attributes of the reform just mentioned.

A similar phenomenon seems to have occurred in Mexico, a country where more than half of all workers are informally employed and one out of every four is poor. In his book *Good Intentions, Bad Outcomes*, Levy (2008) argues that several subsidized social programs have hampered growth, fostered illegality, and provided erratic protection to workers, trapping many in poverty. In his research he also wondered whether noncontributory programs introduced in Mexico to act as social safety nets for those outside the formal sector were providing perverse incentives for

formal sector workers to switch to informal employment. By doing so, workers could avoid having to make otherwise mandatory contributions to SHI while receiving some free services under the new program. Levy argues that the high prevalence of work informality has presented Mexico with a dilemma: provide benefits to informal workers at the expense of lower growth and reduced productivity or leave millions of workers without benefits. He proposes a solution to convert the existing system of social security for formal workers into universal social entitlements. He advocates eliminating wage-based social security contributions and raising consumption taxes on higher-income households to increase simultaneously the rate of growth of GDP, reduce inequality, and improve benefits for workers.

Aterido et al. (2011) set out to examine whether Mexico's subsidized health insurance program for the poor, *Seguro Popular*, had the unintended consequence of promoting informal employment, for the same reasons cited by Levy. These authors use panel data to address this hypothesis and find that *Seguro Popular* may have increased labor informality by between 0.4 and 0.7 percentage points. Previous studies, which did not use econometric methods and data as robust as the one by Aterido et al., also found a similarly small effect.

Wagstaff and Manachotphonng (2012) studied the effects of Thailand's subsidized health program, known as the Universal Coverage Scheme (UCS), or "30-Baht scheme," on labor informality. They noted some key differences between Mexico's *Seguro Popular* and Thailand's scheme, which could affect the magnitude of its consequences of informality.

First, Thailand's scheme involves no copayments and minimal contributions for participation by beneficiaries, while in *Seguro Popular*, contributions to the scheme are determined by the applicant's income. Second, Thailand's scheme is relatively more generous than Mexico's, with average benefits in the former equal to 85 percent of the average benefits given by the contributory scheme, compared to 65 percent for Mexico. Third, in Thailand, coverage of the subsidized is for the individual worker only, while in Mexico it is for the worker and his or her family.

The authors used data from Thailand's Labor Force Survey and took advantage of the incremental implementation of the UCS to identify its consequences on labor informality. The authors found that Thailand's UCS appears to have encouraged employment, especially among married women; reduced formal-sector employment, at least among married men; and increased informal-sector employment, especially among married women. The largest positive informal-sector employment effects occur in the agricultural sector. By removing the financial risk of health shocks resulting from informal-sector employment, UCS has allowed couples to switch from a situation where the breadwinner works in an urban formal-sector job and the spouse collocated but does not work, to one in which both work in informal-sector jobs in a rural setting.

There is also evidence from Chile that the government-subsidized component of the National Health Fund (Fonasa) promotes informality and leads workers to underreport their income (Bitrán 2012a). Fonasa's indigent population represents over one-fourth of Chile's total population, yet poverty in Chile is only 14.4 percent. The distance between these two figures led Fonasa authorities in 2010 to inquire about the existence of the so-called "false indigents." The inquiry involved first an analysis of the 2009 national Socioeconomic Characterization Survey (CASEN), followed by cross-checking of Fonasa's beneficiary roster with records from the

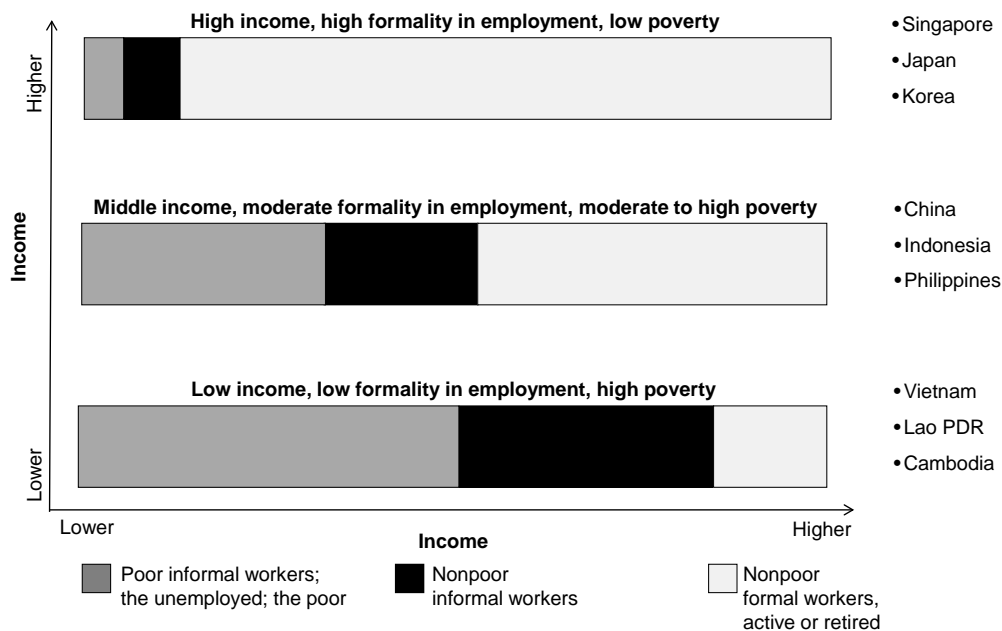
Internal Tax Service. The enquiry revealed that approximately 400,000 individuals were illegally enrolled in Fonasa's Group A. Most of them were temporary and independent workers who made no pension contributions. Contributing to the pension system is a legal requirement for all Chilean workers, unless they are considered indigent. This confers a perverse incentive for some to qualify as indigent, as they are thus relieved of the burden to put income away in the form of a pension contribution.

IV. CONCEPTUAL FRAMEWORK

4.1. INSURING THE POOR AND VULNERABLE AND THE INFORMALLY EMPLOYED

In his review of health insurance issues in East Asia, this author noted that the kind and extent of insurance coverage that different countries can have depends largely on their level of development, which determines the extent of poverty, informal employment, and availability of fiscal resources (Bitrán 2005). Countries such as the Republic of Korea, Japan, and Singapore have a working population that is predominantly employed in the formal sector, with only a small share of the population working in the informal sector and a small fraction living in poverty (figure 8). These countries have achieved UHC through a health system that delivers a relatively broad and homogeneous set of health services to the entire population. Government revenue is high enough to subsidize health services for the poor and those in the informal sector. Achievement of UHC by these countries was possible owing to the sustained economic growth over more than two decades, which brought about additional needed tax revenue to government to subsidize enrollment in SHI of the poor and nonpoor informal sector workers.

Figure 8 Economic Development and Population Characteristics according to Income and Employment Status



Source: Adapted from Bitrán 2005.

Middle-income countries such as China, Indonesia, and the Philippines have a relatively larger share of the population in poverty or with informal employment. Each stratum has access to a different set of health services. Government support is insufficient to fully subsidize health care for the poor and the informally employed, which results in significant out-of-pocket payments and limited financial protection for health care. This is particularly the case in China.

In low-income countries, such as Cambodia, Lao PDR, and Vietnam, a large share of the economically active population works in the informal sector, and a significant proportion of the population live in poverty. Their efforts to move toward UHC are hampered by their relatively small tax base and the consequent fiscal limits on public resources available for the health sector. Their publicly financed health systems rely heavily on user fees to supplement meager government salaries and the lack of drugs and other resources. Also, the small proportion of the working population in the formal sector limits the amount of revenue collected by the social security agency. Political pressures to cover and fully subsidize several population groups, (students, the near-poor, and ethnic minorities) under social security further complicates the task.

4.2. THE PROBLEMS POSED BY A SEGMENTED HEALTH SYSTEM

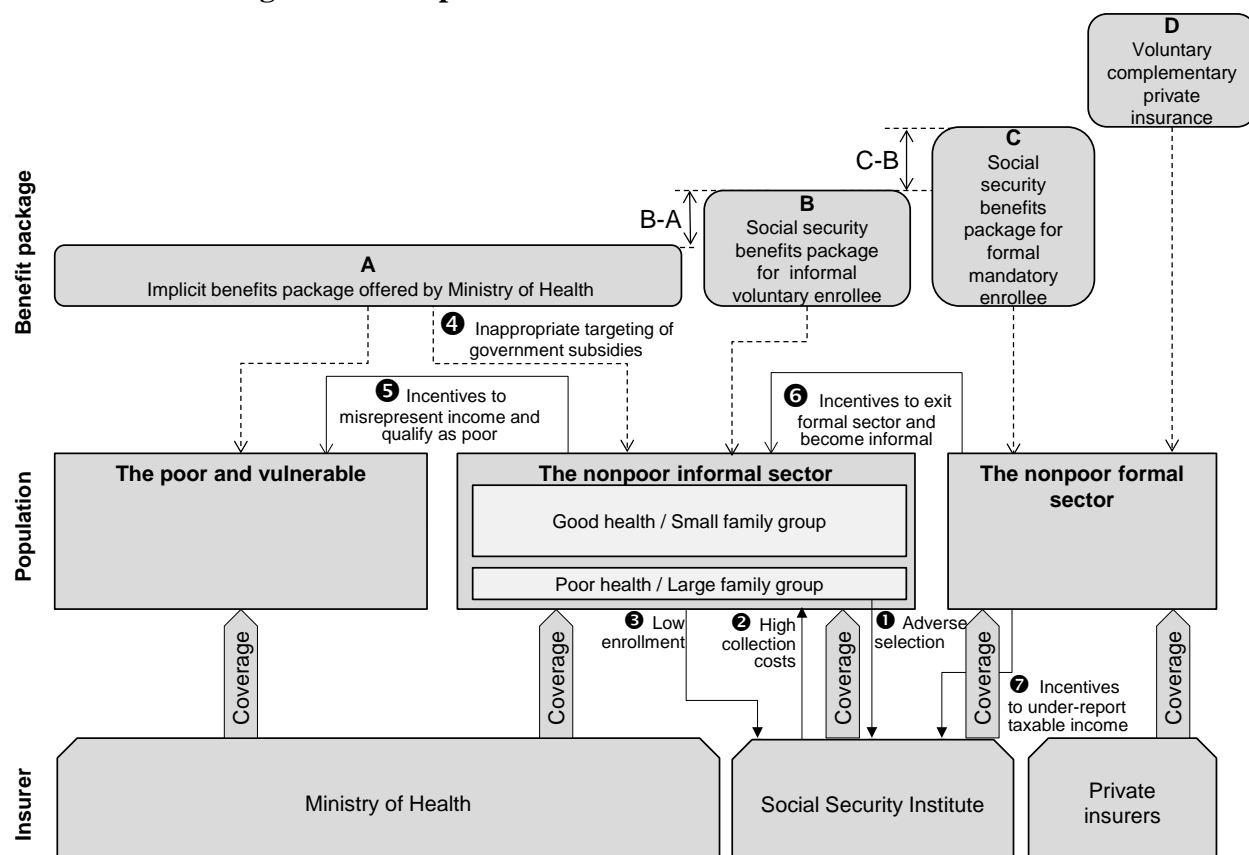
The challenges posed by the high prevalence of poverty and a large informal sector are compounded by the existence of segmented health systems. Most developing countries have such systems, where separate population groups, defined on the basis of income, employment status, and other characteristics, have access to different health benefits and contribute variably to the financing of these benefits. Frenk and Londoño (1997) noted this segmentation in their “structured pluralism” paper. They pointed out that in Latin America the Ministry of Health was the health system of the poor; the social security agencies managed the health system for the formally employed; private insurers and providers constituted the health system for the high-income segment; while a large segment of the non-poor population, mostly informal sector workers and their families, were left without explicit health coverage.

This segmentation remains in place in much of Latin America and elsewhere in the developing world today, although a few countries, such as Colombia, Costa Rica, and Thailand have, since the appearance of that article, made great strides toward unifying their health systems.

The existence of a segmented health system brings about several problems that result in the misuse of public subsidies, insufficient insurance coverage, greater informality, and smaller social security and tax collection.

Figure 9 depicts the main features of those systems. In the middle section of the figure is the population, broken into three groups: the poor and vulnerable, the non-poor informal sector, and the non-poor formal sector. At the bottom of the figure are the insurers, including the Ministry of Health (MOH), the social security institute, and private insurers. At the top of the figure are the benefits provided by the insurers.

Figure 9 Conceptual Framework: A Problem of Incentives



Source: Author.

The MOH is financed mostly from treasury resources with a minor fraction also from user-fee revenue, where such a policy exists. It generally provides undefined or nonexplicit coverage, by making health services available to the entire population, or only to the lower-income segments of the population. Due to limited public resources and poor management, it is usual for such services to be rationed through queues, demand deflection, denial, and low-quality care. The MOH typically delivers its services through a government-run network of health care providers at the ambulatory and inpatient levels.

The social security institute is financed from mandatory contributions payments made by its formal sector members and by voluntary contributions by its informal sector members. It may offer two different benefits packages, a more modest one for voluntary enrollees from the informal sector, and a more generous one for mandatory enrollees from the formal sector.

Private insurers are self-financed from voluntary premium payments made by their affiliates and offer complementary insurance on a voluntary basis to high-income formal sector workers who wish to purchase additional coverage beyond what is offered by the social security institute. High-income self-employed individuals may also choose not to obtain social security coverage and purchase private insurance.

In such a segmented system, the following problems arise: First, among the informal sector workers, those who have a greater propensity to obtain SHI coverage on a voluntary basis are those with large families or those who anticipate high utilization of health care services (for example, families with one or more members with a chronic condition). This is known as adverse selection. The voluntary premium that these enrollees pay is often nominal, to induce enrollment, and it is also less than the average health expenditure generated by these individuals and their families. Thus, SHI experiences a deficit with them.

Second, SHI tends to incur high administrative costs associated with the collection of those contributions. Often, these costs are comparable to the revenue collected, leaving no or little margin to defray health expenditures of the voluntary enrollees and their families.

Third, enrollment by informal sector workers is generally small; the vast majority of these workers and their families remain uncovered. Lacking health insurance coverage leaves them exposed to the uncertainty of having to face high out-of-pocket costs if the need arises.

Fourth, informal sector workers who are neither poor nor vulnerable and who decide not to enroll with SHI on a voluntary basis, typically are able to obtain subsidized health care from MOH providers. This implies that a share of public subsidies is badly targeted because it benefits individuals who are not poor or vulnerable. In some countries (for example, Nicaragua), this problem is compounded because the benefits package offered by the SHI agency has important exclusions (for example, some expensive tertiary care), and therefore a majority of SHI beneficiaries, both voluntary and mandatory enrollees and their dependents, use subsidized MOH services.

Fifth, while it is common for the SHI benefits package to be superior in quality and scope to the services offered by MOH, in some countries the difference is small enough to confer perverse incentives. Some informal sector workers may decide to misrepresent their incomes or work status to qualify as poor to obtain fully subsidized health care from MOH. This has been a common phenomenon in Chile, where certain categories of workers (typically domestic service) request the employer not to sign a legal contract, to be able to qualify as poor or indigent in MOH's means test. The employer has financial incentives to agree, as in the absence of a legal contract, he or she does not have to pay the legal allowances of formal employees, which include pension, unemployment insurance, and health insurance.

Sixth, formal sector workers may decide to leave the formal sector to become informal and obtain subsidized health coverage. This has been a problem in Colombia, Mexico, and Thailand, as described above. Likewise, individuals entering the labor force or those working in the informal sector may decide not to join the formal sector to avoid the mandatory contributions they would have to make for health, pension, disability and unemployment insurance.

Seventh, non-poor formal sector workers may have an incentive to underreport their income, or to hide part of their income by receiving noncash benefits from employers (such as a free company-provided car), to minimize the mandatory contribution to SHI. This problem was common in Colombia during the first 15 years into the SHI reform. Upper-middle- and upper-income formal sector workers did not value the coverage offered by their SHI institution and instead purchased private health insurance. By declaring a minimum income and by making the

minimum contribution to SHI they found a way of eluding higher requisite contribution. A specific feature of the Colombian reform, aimed at achieving solidarity, proved to be its Achilles' heel: the benefits package that SHI offered was the same irrespective of the amount of the contribution. This problem has now been solved (more on Colombia's reform below).

Figure 9, above, in its upper section shows the health benefits packages offered by the different kinds of insurers. The difference in content among these packages and the cost of securing coverage (that is, the premium or contribution) are the key variables that drive individual decisions about which coverage to seek. Following are some relevant examples.

If the SHI agency offers informal sector workers voluntary enrollment in exchange for a small monthly premium, potential enrollees will evaluate this option by determining the extent to which the SHI benefits package on offer exceeds in quality the one offered for free by MOH. They will then contrast the value of any additional benefits in relation to the monthly premium they are required to contribute.³ If the additional benefits are substantial, and the premium is small, they may be inclined to enroll. If the additional benefits are marginal, they may prefer to forego this option and remain explicitly uninsured but with the option of using MOH services at little or no charge. An exception to this decision rule occurs when voluntary enrollment in SHI is accompanied by additional legal requirements. This is the case in Chile, where the National Health Fund, Fonasa, requires informal sector applicants to also contribute to a pension system. This increases the cost of enrollment and may lead many informal sector workers to forego coverage or to try and pass as indigent, to receive fully subsidized coverage by Fonasa.

Likewise, if the benefits package of voluntary informal enrollees is the same or similar to that of formal sector enrollees, and if the latter are required to contribute much more to SHI than the former, formal sector enrollees will have a strong incentive to misrepresent their employment status or to shift to the informal sector.

As shown in the following section, a variety of designs devised by government or SHI agencies, exist to cover informal sector workers. Often, however, these designs convey perverse incentives, failing to attract a substantial share of informal workers while promoting informality. An overall lesson that emerges from many of these country cases is that it is difficult to enroll informally employed individuals on a voluntary basis, even if they are offered large enrollment subsidies. Further, designs aimed at attracting the informal into a voluntary health insurance scheme may introduce distortions in the system that lead to perverse behaviors, such as promoting informality or the evasion and elusion of contributions.

3. Strictly speaking, when evaluating the options available, individuals actually assess their expected utility by considering expected benefits and costs. They consider their subjective probability of needing health services in the future, the out-of-pocket costs of those services if uninsured, and the stream of premium payments if insured.

4.3. ENABLING FACTORS FOR UHC

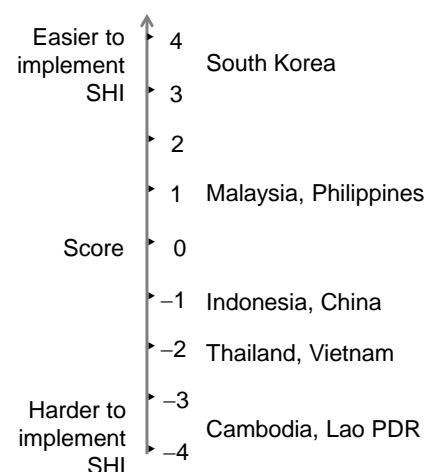
Gertler noted that Asian countries that successfully achieved UHC through SHI — Japan, Korea, Singapore, and Taiwan — were the ones that instituted universal SHI when their per capita incomes were above US\$5,000 (Gertler 1998). Countries that reach high levels of income typically have stronger institutions, are largely urbanized, and have the majority of their workforce in formal employment. For these countries, the early efforts to expand coverage and the actual legal enactment of SHI were far apart. Korea, for example, started coverage expansion efforts as early as 1963 with the introduction of voluntary health insurance, followed around 1980 by the enactment of legislation mandating coverage for the formally employed. In 1977, 8.7 percent of the population was covered. By 1987, this number had increased to 50 percent. Encouraged by these results, government mandated universal health insurance coverage, so that by July 1989, 100 percent of the population was legally eligible for coverage.

Urbanization in these four countries was relatively high by the time they achieved universal SHI coverage. Further, due to the high growth of their economies, they were able to absorb the rapid cost escalation associated with moral hazard from expanded SHI coverage (Gertler 1998). Between 1960 and 1992, the average annual growth rate in per capita GDP of Korea, Taiwan, and Singapore was 10.5 percent, 9.2 percent, and 7.9 percent, respectively. The extensive public contribution required to subsidize enrollment by informal sector workers and the poor in SHI is not available at low levels of income and economic growth. Compared to Indonesia and the Philippines, in the early 2000s Thailand was in a relatively sound position with a per capita GDP that was more than twice as high as the other countries' and with a growth in GDP of over 5 percent per year. China was and remains in a relatively favorable position as well, given its high economic growth rate.

A study by Ensor (1999) about the feasibility of introducing and expanding SHI in transition Asian economies (figure 10) identified three categories of enabling factors for UHC: transition features, structural characteristics, and country-specific features. Transition factors are those shared by countries undergoing economic change. They include changes in employment structure (for example, the privatization of state-owned firms leading to a reduction in employment in the public sector and a growth in small private, mostly informal employment), exodus of rural health workers to more lucrative jobs, and growing reliance on user fees in government health facilities. Structural characteristics are features of a country that are important in determining the feasibility of collecting revenues through a payroll tax. They include the proportion of the population employed in the industrial sector, the proportion of the population that is urban, the population density, the income of the country, and the growth in income.

The first three structural characteristics are proxies for the ease of registration and contribution to SHI and thus for administrative costs. The last two structural characteristics are indicators of how

Figure 10 Score System: Feasibility of Achieving UHC through SHI in Selected East Asian Countries



Source: Ensor 1999.

easy it will be for firms and individuals to afford SHI contributions. The country-specific features that influence the feasibility of implementing SHI include the quality of management of health insurance funds, the ability of managers to predict and match costs and revenue, and the efficiency of purchasing practices.

Ensor (1999) used the first four of the five structural characteristics, and a method for ranking them according to their deviation from the mean for a group of countries.⁴

V. THE CHALLENGE OF PROVIDING HEALTH INSURANCE TO INFORMAL SECTOR WORKERS

Providing informal sector workers and their families appropriate access to health services is a central preoccupation of policy makers seeking to achieve UHC in developing countries. Government providers typically operate with tight budgets and are characterized by unmotivated health staff and a lack of medicines and basic supplies, which leads to rationing of care. Also, in several low- and middle-income countries, particularly in Asia but also in Africa, government providers charge legal or illegal user fees for their services. In addition, in the poorest countries a large share of the population lives far away from the closest public health center or hospital, and transportation is nonexistent or expensive. For all these reasons, access to services from public providers for the poor and the non-poor informal population is not always feasible and often involves significant cash payments. Private providers are their other health care option, but these are generally self-financed through user fees, which limits access by the poor; their services also tend to be unregulated, resulting in low-quality or unsafe services.

This section reviews the published literature on initiatives seeking to provide health insurance or other forms of financial protection to the informally employed and their dependents. Since in developing countries most of the poor are also informal, the initiatives reviewed include ones aimed at insuring the poor (and informal), those aimed at insuring the nonpoor informal, and others directed at both.

5.1. PREVIOUS REVIEWS OF HEALTH INSURANCE FOR INFORMAL SECTOR WORKERS

Providing health insurance for informal sector workers and their families has received considerable attention from health policy researchers over the last 15 years. In 1998, Bennett et al. (1998) published a major review consisting of 82 schemes that sought to promote risk sharing of the costs of health care for persons outside formal sector employment. The schemes came from a broad spectrum of developing countries and were diverse in the kinds of benefits they provided, and in their governance and financing. With the important exception of China's rural medical scheme, few of the schemes reviewed covered very large populations or even high proportions of the eligible population. Many had encountered substantial adverse selection problems, particularly if at their outset they had not included design features to guard against these.

4. Shaw and Ainsworth (1996) developed a similar method earlier for Sub-Saharan Africa to compute a score that measures the feasibility of implementing SHI.

All of the schemes depended on continuing access to some form of external subsidy. Yet few reached the poorest households because most schemes seemed to target the rural middle class. Purchasing functions under the schemes tended to be weak, with scheme managers commonly focusing on raising revenue rather than ensuring efficient delivery of quality health care. The authors noted that available evaluations of the schemes tended to ignore the interaction of the schemes with the larger health system. The evaluations also showed that in the absence of an adequate regulatory and policy framework for small-scale health insurance schemes, these may avoid responsibility for chronic or severe patients (leaving these cases to the public sector), attract unduly high levels of government and international subsidy, and introduce inefficiencies into health care delivery by ignoring referral structures. They pointed out that unless there is adequate targeting of government subsidies, schemes may actually generate greater inequity between different population groups.

Gumber (2002) reviewed existing health insurance arrangements in India, including ones for informal sector workers. He examined community-based and self-financing programs whose target population was mainly the informal sector, noting that while they were able to raise some revenue from members, they tended to be restricted to small population groups and covered a limited range of health care services. This author reviewed health insurance schemes linked to microcredit initiatives and remarked that a common source of credit default was the cash outlays that households had to make to obtain health care, hence the drive to promote health insurance. A noteworthy initiative in this context was India's Self-Employed Women Association (SEWA), which implemented a successful health insurance scheme for its 215,000 members, mostly informal sector women.

In 2006, the Philippine Health Insurance Corporation (PhilHealth), in collaboration with several development partners, held an international conference titled, "Conference on Extending Health Insurance to Informal Economy Workers," which drew 200 delegates from 25 countries (PhilHealth 2006). A synthesis report presented the event's main findings and recommendations over a broad range of key policy issues, such as labor market trends and the large and in some places growing informal sector; the practical difficulties of collecting a steady and significant stream of revenue from informal sector workers; the relative advantages of a single health insurance fund compared to multiple funds; the trade-offs between efficiency, consumer preferences, and financial protection involved in the design of benefits packages; the importance of empowering the insured through the use of demand-side subsidies; the importance of making enrollment mandatory; and the key role required of governments in the form of regulation and technical guidance for the development of health insurance. A secondary motivation for the conference was PhilHealth's interest in exploring ways to boost enrollment among large numbers of informal economy workers through linkages with community-based health insurance schemes, small cooperative nongovernmental organizations, and large microfinance organizations and rural banks.

The PhilHealth Synthesis Report questioned the common propensity among countries to seek universal coverage through SHI. It identified three main approaches to coverage extension. The first is SHI, whose advantages — according to the authors — are the extent of participation and empowerment SHI promotes among contributing members and the revenue raised from contributions. The authors note, however, that premium collection involves large administrative costs and that the difficulty assessing participants' income permits evasion of contributions and

misallocation of government subsidies to the non-poor. The second approach is tax-based financing, which removes the link between contributions and benefits. Its advantage is that it can lead to rapid increase in coverage; however, it requires large amounts of government subsidies, and these subsidies may end up benefitting the non-poor. The authors noted that Costa Rica, Malaysia, and Sri Lanka are among the many countries that have adopted this approach. The third approach is mixed, involving an SHI component alongside a tax-based component. Japan, Korea, and Taiwan have followed this route.

A report by Acharya et al. (2012) presents findings from a detailed review of econometric studies about the impact of health insurance arrangements for informal sector workers in the developing world. The authors examined the impact from four perspectives: enrollment, health services utilization, financial protection, and health status. While they reviewed studies on countries that in the last decade have experienced large increases in health insurance coverage, such as China, Ghana, and Vietnam, they saw no clear pattern of the influence on enrollment of other individual variables such as age, gender, preexisting medical conditions, and distance to health providers. They did find that, according to most studies, education increases a person's propensity to enroll.

Some of the studies reviewed by Acharya et al. found that insurance increased utilization of various covered services, although contradictory findings also emerged from the same country (for example, Mexico and its *Seguro Popular* —discussed below —, Vietnam, and China). As for financial protection, the authors noted that none of the studies addressed financial protection against worker absenteeism or reduced productivity from illness, and most addressed only out-of-pocket spending (OOPS) but ignored the effect of premiums and entry fees on health insurance. The authors mentioned a 2007 study on the limited impact of OOP expenditure for the insured in Vietnam, where there was some protection for high expenditures, with the poor experiencing a small effect. They also mentioned subsequent studies in Vietnam that did find a protective effect of insurance. In China, only four out of sixteen studies found a protective effect of health insurance, and five studies found a lower incidence of catastrophic expenditures. Finally, few studies assessed health impacts, and few among these found a positive health insurance effect. One study from China was an exception. The authors recommended that more rigorous impact evaluations should be conducted to assess health insurance impact, and that to achieve greater impact, improvement in health care supply should always accompany health insurance expansion efforts.

5.2. COMMUNITY-BASED HEALTH INSURANCE IN AFRICA

Community-based health insurance (CBHI), also referred to as health micro insurance or mutual health organization (from the French *Mutuelles de Santé*) is a response, often spontaneous, by many developing countries to the challenge described in the preceding paragraph. Donor support of these initiatives has been common. Ekman (2004) conducted a systematic review of evidence about the extent to which CBHI is a viable option for low-income countries in mobilizing resources and providing financial protection. Overall he found that the evidence base is limited in scope and questionable in quality. He also found strong evidence that CBHI provides some financial protection by reducing OOPS and evidence of moderate strength that such schemes improve cost-recovery. He obtained weak or no evidence that schemes have an effect on the quality of care or the efficiency in production. In absolute terms, the effects are small, and

schemes serve only a limited section of the population. He concluded that CBHI arrangements are, at best, complementary to other more effective systems of health financing.

A background paper written for the *World Health Report 2010* reviewed these efforts in the context of the drive of countries to achieve UHC (Soors et al. 2010). These authors identified five common characteristics of CBHI: risk pooling, risk sharing and membership premiums' independence from individual health risks, community involvement in the schemes' design and management, nonprofit character, and voluntary affiliation. Where governments have built upon these schemes in the quest for UHC, voluntary membership has been maintained (as in rural China), or it has been replaced by mandatory enrollment (as in Ghana). Dror and Jacquier (2001) introduced the concept of health micro insurance, where the term *micro* indicated that the initiatives were local and below the national level.

The review by Soors et al. focused on four regions of the developing world — West Africa, East and Central Africa, Asia, and Latin America. In West Africa (Benin, Burkina Faso, Cameroon, Ghana, Guinea, Mali, Mauritania, Niger, Senegal, Togo), the number of schemes increased eightfold between 1997 and 2007, reaching 626 in 2007. They noted, however, that most of these schemes had fewer than 1,000 members, thus limiting their ability to have effective (that is, large enough) risk pools. They also pointed out that in many countries initiatives exist to form networks for these schemes and to create legislation to govern them. In Senegal, prepayment plans resulted in a drop in OOP expenditure out of total private expenditure, from 92 to 79 percent, but by 2007, less than 4 percent of the population was affiliated with one of the country's 130 CBHI schemes. In Ghana, the National Health Insurance Act of 2003 mandated the creation of CBHI in every district, paving the way for a scale-up of CBHI as a strategy to achieve UHC in the long term.

A debate persists about the merits of using contributions to the National Health Insurance Scheme (NHIS) by the formal sector to subsidize enrollment by informal sector workers. By 2009, reported coverage by Ghana's NHIS was almost 50 percent, although there is evidence that many of those with an insurance card were inactive enrollees (Bitrán 2012b). There is recent evidence that Ghana's NHIS has helped improve financial protection and access to maternal and child health services (Makinen et al. 2011; Nguyen, Rajkotia and Wang 2011; Sulzbach 2008). Elsewhere in Western Africa the relevance of CBHI is still small as measured by the share of the population covered and by the amount of financing channeled through these mechanisms.

In Central and Eastern Africa, CBHI has drawn growing attention by governments, although outside of Rwanda these schemes are either new or cover only a small fraction of the total population. In Rwanda, the growing *mutuelles* led to a government decision in 1999 to use them as the springboard to UHC. By 2008, national coverage was 85 percent. Recent evidence shows that *mutuelles* improved medical care utilization and protected households from catastrophic health spending, although enrollees in the poorest expenditure quintile had a significantly lower rate of utilization and a higher rate of catastrophic health spending (Lu et al. 2012).

CBHI also plays an important role in Asia, particularly in India and Bangladesh. China's New Rural Cooperative Medical Scheme (NRCMS) is classified by some as a form of CBHI (Soors et

al. 2010), and it meets the five common characteristics of CBHI listed above. Thus, it is presented below along with the experiences of India.⁵

5.3. COMMUNITY HEALTH INSURANCE IN INDIA

It is estimated that about two-fifths of India's GDP originates from the informal sector and almost 90 percent of families depend on this sector for their livelihood (Gumber and Kulkarni 2000). The challenges to informal sector families of meeting health expenditures have given rise to several local and national initiatives to provide health insurance. Member-financed CBHI exists in India although this author could not find published figures about the total number or percentage of Indians actually covered through this mechanism. Millions of Indians are insured under schemes that are financed partly by beneficiary communities but obtain a majority of their funding from central or local governments. They are reported in the next section.

The information gathered by Soors et al. (2010) suggests that member-financed CBHI in India mobilizes a relatively small volume of total health financing resources. These authors reported that the share of prepayment plans (including CBHI but not mandatory health insurance) in private health expenditure rose from 1.0 to 2.1 percent between 2000 and 2007 — both modest amounts — while out-of-pocket expenditure as a proportion of private health expenditure dropped from 92.2 to 89.9 percent over the same period.

Dror et al. (2007) assessed willingness to pay for health insurance among 3,024 Indian households in seven locations where micro health insurance units were in operation. They found that about two-thirds of the sample agreed to pay at least one percent of annual household income for health insurance. They also found evidence of adverse selection because households that had experienced a high-cost health event (as well as male respondents) reported slightly higher willingness to pay. In a subsequent study, Dror (2007) carried out a simulation exercise using household-level data on health utilization and expenditure to determine the extent to which existing microinsurance regulations would lead to adequate financial protection of households. He found that regulations were inappropriate and would result in the supply of health insurance schemes that would provide only limited financial protection. According to this second study by Dror, it was the unattractive value of the health insurance being offered that resulted in low demand, rather than a low willingness to pay for health insurance.

5.4. GOVERNMENT-SPONSORED HEALTH INSURANCE SCHEMES (GSHISs) IN INDIA

These schemes were launched in India in 2007 as an attempt to cover the country's poor.⁶ Prior to the appearance of GSHISs, nearly all public financing was directed to the government-owned-and-operated service delivery system to support an implicit (and often undelivered) benefits package. The poor were commonly faced with steep OOPS to resolve their health needs in both public and private facilities. In 2007, out-of-pocket health spending accounted for approximately

5. Ekman 2004, who shows that CBHI helps reduce OOPS by members.

6. This section is a brief summary from *Health Insurance India Are You Covered?*, vol. 72238, Directions in Development, Human Development, World Bank, Washington, DC, 2012.

80 percent of all health financing in the country. In 2010, only three years into the birth of GSHISs, about 240 million Indians (or 19 percent of the population) were already covered by these schemes, (see table 1). GSHIS's target population consists of those living below the poverty line (BPL) and the informal sector; however, the definition of BPL lists varies across schemes. The aim of GSHISs is to provide financial protection to the poor against catastrophic health shocks.

Accordingly, most of the newer schemes demonstrate a strong emphasis on surgical procedures. Ambulatory care is largely uncovered except for limited coverage as part of an inpatient episode. Most schemes limit their exposure through annual family caps, ranging from Rs 30,000 for the health insurance scheme (*Rashtriya Swasthya Bima Yojana*, RSBY) to Rs 150,000 for the Andhra Pradesh scheme. Most GSHISs are marginally linked to the public delivery system, and most networked hospitals are private. For the tertiary-focused state GSHISs particularly, one of the main reasons to initiate these schemes was the limited capacity in the public sector to provide tertiary care. La Forgia and Nagpal (2012) forecast that in light of current trends, and assuming continued political and financial support from government, insurance coverage can be expected (conservatively) to exceed 630 million persons (50 percent of the population) by 2015. GSHIS coverage will likely more than double, from 243 million in 2009–10 to nearly 530 million in 2015.

Table 1. India: Selected Characteristics of Government-Sponsored Health Insurance Schemes, 2010

Schemes, 2010					
Scheme name	Employees' State Insurance Scheme (ESIS)	Central Government Health Scheme (CGHS)	Yeshasvini Co-operative Farmers Health-care Scheme (Karnataka)	Rajiv Aarogyasri Community Health Insurance Scheme (Andhra Pradesh)	
Launch year	1952	1954	2003	2007	
Geographical area	Pan India in notified areas	Pan India, 25 cities	Entire state of Karnataka	Entire state of Andhra Pradesh	
Target/eligible population	Private formal sector	Employees and pensioners of central gov't and certain other groups	Members of the rural cooperative societies (both above and below the poverty line)	BPL or annual family income below Rs. 75,000	
Number of beneficiaries	55.4 million	3 million	3 million	20.4 million families, 70 million beneficiaries	
Sources of funds	Contribution, % of wages (employees 1.75%, employers 4.75%)	Central gov't budget, employee contribution based on salary	Contributions (beneficiaries 58%), (state government 42%)	State government (100%, through the health budget and through a levy on alcohol sales in the state)	
Scheme name	Rashtriya Swasthya Bima Yojana, RSBY (GOI/MOLE)	Chief Minister Kalaighnar's Insurance Scheme ^a (Tamil Nadu)	Vajpayee Arogyashri Scheme (Karnataka)	RSBY Plus (Himachal Pradesh)	Apka Swasthya Bima Yojanab (New Delhi)
Launch year	2008	2009	2009	2010	2011–12a
Geographical area	Pan India: Currently implemented in 25 states	Entire state of Tamil Nadu	Gulbarg a Division of Karnataka	Entire state of Himachal Pradesh	Entire territory of Delhi
Target/eligible population	BPL families and other targeted groups	BPL; annual family income below Rs. 72,000;	BPL residing in covered areas	Enrollees in HP under RSBY	Enrollees in Delhi under RSBY

		members of 26 welfare boards			
Number of benefic- iaries	23.4 million families, 70 million beneficiaries	13.4 million families, 36 million beneficiaries	1.5 million families, 7.5 million beneficiaries	0.24 million families, 0.8 million beneficiaries	0.65 million families (proposed)
Sources of funds	Central government 75%, state government 25%, but in some states, it is 90% from center plus Rs. 30 from beneficiary	State government (100%)	State government (100%)	State government (100%)	

Source: La Forgia and Nagpal 2012.

5.5. HEALTH INSURANCE IN CHINA

In China, a large government initiative to provide insurance to the rural population is known as the New Rural Cooperative Medical Scheme (NRCMS), rolled out during 2003–08. It is a voluntary health insurance program for rural residents not employed in the formal sector. Its financing comes from premiums paid by enrollees and from local and central government subsidies. The NRCMS differs from the system it replaced, the now extinct Cooperative Medical Scheme (CMS), in that in the previous system, enrollment was mandatory and financing was derived from commune income (Wagstaff et al. 2009).

Soors et al. (2010) report modest gains in financial coverage associated with NRCMS at the country level: between 2000 and 2007, the share of prepayment plans in private health expenditure rose from 1.0 to 7.1 percent, while out-of-pocket expenditure as a proportion of private health expenditure dropped from 97.3 to 92.0 percent over the same period. Several studies have found that with NRCMS, the incidence of catastrophic health expenditures had fallen only mildly as had the incidence of poverty from high OOPS. This slight impact on financial protection contrasts with the reported expansion in population coverage: according to official data, the NRCMS covered 73 percent of the targeted rural population in 2004 and had reached 95 percent in 2008.

Various studies reported by Soors et al. (2010), including a comprehensive review of recent studies of China's health care reform by Wagstaff et al. (2009), have confirmed the limited financial protection conferred by NRCMS. Several authors agree that increased public finding is necessary but not sufficient to improve financial protection of NRCMS; additional medical financial assistance (MFA) safety-net programs for the urban and rural extreme poor was started in 2003 and is closely linked to the NRCMS. Its performance in terms of financial protection, however, has been even weaker than that of NRCMS.

There is consensus among researchers; however, that China's reform has resulted in improved accessibility to health services and, in some cases, also in better health status (Soors et al. 2010; Yip et al. 2012). Further, Yip et al. (2012) report that by 2011, China's three large SHI programs covered more than 92 percent of the country's population. Table 2, lists the three schemes and their characteristics for the years 2008 and 2010. The first scheme listed, Urban Employee Basic Medical Insurance (UEBMI), covers formal sector workers and is cofinanced by the worker and the employer, with the employer contributing about three times as much as the worker. This scheme receives no public subsidies.

The Urban Resident Basic Medical Insurance (URBMI) program covers children, students, the elderly without previous employment, informal sector workers, and migrants in some cities. This scheme also involves a contribution, set at the individual level, although its absolute value represents about one-tenth the total premium per person of the UEBMI. Unlike the UEBMI, this scheme does receive a government subsidy, which increased from ¥80 to ¥120 between 2008 and 2010, and which was due to increase to ¥200 in 2011. The NRCMS, described above, also calls for an individual contribution, which in 2011 was expected to be the same as that of the URBMI. It also benefits from government subsidies, which by 2011 were expected to be the same, on an individual basis, as those received by the URBMI.

Table 2 China: Summary of Three SHI Programs

	UEBMI ^a		URBMI ^b		NRCMS ^c	
Target population	Formal sector urban workers		Children, students, elderly people without previous employment, informal sector workers, and migrants (in some cities)		Rural residents	
Year	2008	2010	2008	2010	2008	2010
Risk-pooling unit	City	City	City	City	County	County
Enrollment,(%)	80.7	92.4	63.8	92.9	90.0	96.6
Total premium per person (¥)	1,443	1,559	131	138	96	157
Government subsidy per person (¥)	0	0	80	120 (200 in 2011)	80	120 (200 in 2011)
Central government contribution (¥)	0	0	40	60 (100 in 2011)	80	60 (100 in 2011)
Individual contribution	2–3% of salary	2–3% of salary				
Employer contribution†	6–8% of salary (about ¥1,483–1,977)	6–8% of salary (about ¥1,483–1,977)	0	0	0	0
Benefit design						
Inpatient reimbursement rate (%)	67.0	68.2	43.8	47.9	37.8	43.9
Counties or cities covering general outpatient care (%)	Savings accounts	Savings accounts	12.5	57.5	29.1	78.8
Counties or cities covering outpatient care for major and chronic disease (%)	Savings accounts	Savings accounts	61.6	82.7	63.0	89.4
Total reimbursement ceiling	n.a.	6 times average wage of employee in the city	n.a.	6 times disposable income of local residents	n.a.	6 times income of local farmers

Source: Yip et al. 2012.

Note: a. Urban Employee Basic Medical Insurance; b. New Cooperative Medical Scheme; c. Urban Resident Basic Medical Insurance; n.a. = not applicable.

Importantly, the premium of formal sector workers is more than 10 times higher than that of informal workers, and the premium for informal workers is similar in urban and rural areas. Counting both the premium and the governments' premium subsidy, the per-member contribution to insurance for the poor, students, and informal workers represents only one-fourth the contribution of formal sector SHI. Accordingly, there are important differences in benefits. The reimbursement rate for inpatient services is lower in subsidized insurance than in insurance for formal workers. In the latter, coverage of outpatient services comes from health savings accounts, whereas in subsidized insurance it comes from out-of-pocket payments and subsidies from counties and cities.

5.6. ACHIEVING UHC IN THE REPUBLIC OF KOREA⁷

Korea's SHI system, instituted in 1977, covers the entire population, with a mostly contributory component — the National Health Insurance (NHI) — for the employed and the self-employed, covering 96 percent of the population, and a fully subsidized component — the Medical Aid Program (MAP) — for the poor, covering 4 percent. In 2009 it was estimated that about one-fourth of the country's population belonged to a family where the income earners were self-employed.

Developing a system to draw contributions from the self-employed was a significant administrative challenge because it was difficult first to locate the self-employed and second to collect contributions from them. To devise a collection system, in 1981 the government started pilot tests in three counties, expanded these to more areas, and then conducted a second set of pilot tests around 1985. From these tests the government devised a method to determine the amount of contributions that self-employed households would make to NHI. The method considered two kinds of contributions: one with two portions, which included a flat fee for all households plus a fee proportional to the number of household members, and another with three portions, which were determined on the basis of household income, property, and car ownership. Benefit levels were set equal for formally employed and self-employed workers and their families.

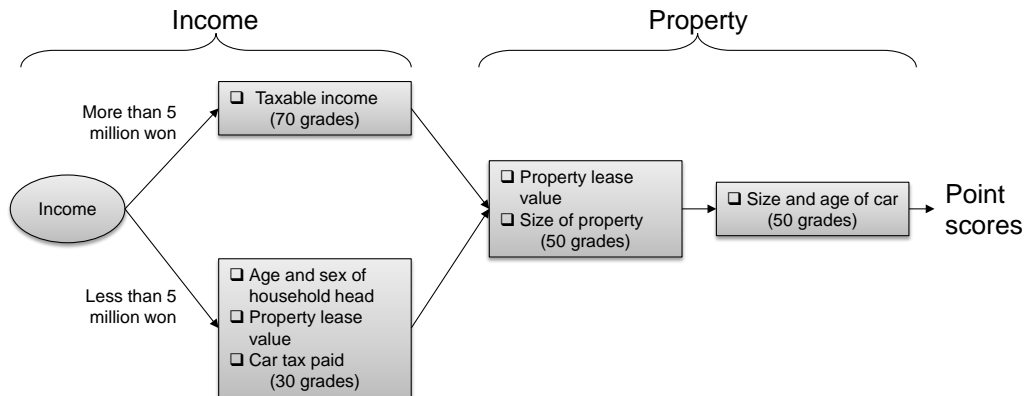
Initially, the collection rate was below 50 percent, even though total contributions for the self-employed were set below those of workers employed by a firm. After reviewing results from the pilots, the Ministry of Health and Social Affairs decided to subsidize insurance for the self-employed beyond an initially modest subsidy directed solely at operating and maintenance expenses. Problems in estimating incomes of the self-employed remain unresolved; if anything, these have become more pronounced as insurance for urban areas has expanded since 1989. The pilot projects were implemented primarily in the farming and fishing sectors, and therefore it has proved difficult to apply lessons learned to urban areas where prevailing the income structure and lifestyle are different. This remains a considerable challenge for the authorities concerned.

The current system to determine NHI contributions for the self-employed is depicted in figure 11. Contributions by a household are proportional to a scoring system that depends in part on the

7. This section draws on Jeong 2010.

household's taxable or estimated income, and partly on the value and size of the property it occupies and the size and age of the car it owns. Jeong (2010) notes that while the current calculation system is more detailed than the previous, it leaves much to be desired in terms of transparency. Indeed, the calculation system is so complicated that laymen often cannot understand how their contributions are calculated.

Figure 11 Korea: Point Scores in the Calculation of Contribution to NHI



Source: Author, modified from Jeong 2010.

One out of six employees of the National Health Insurance Corporation (NHIC — with a total staff of 8,874) is in charge of contribution collection. There are 178 NHIC branches countrywide with nine employees on average in charge of collection in each branch, each employee taking charge of 10,725 locality subscribers and 7,836 employee subscribers. NHIC staff levy and collect insurance contributions on a monthly basis and are scheduled to collect the contributions of pension insurance, employment insurance, and industrial injury compensation insurance as well as health insurance from 2011 onwards in accordance with the reform plan introduced in 2009. Efforts to reduce arrears in insurance contributions account for a considerable portion of the NHIC's duties. Targets for a certain level of collection are set each year and each month, and collection results are analyzed and managed by each branch on a competitive basis. Credit card and internet payments are allowed to facilitate the task of contributors.

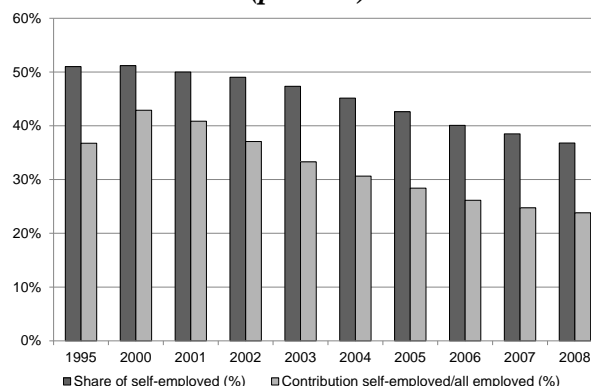
Financing of NHI comes mainly from contributions by the employed and the self-employed, but also from subsidies provided by government and, since 2002, from proceeds from a tobacco levy (figure 12). The self-employed members of NHI have declined as a proportion of total members, from just over 50 percent in 1995 to 37 percent in 2008 (figure 13). This is partly the result of regulations since 2003 that require businesses with even one employee on the payroll to switch over to a worksite insurance subscription. The contributions to NHI by the self-employed are below their share of membership. For example in 2008 the self-employed represented 37 percent of all contributors to NHI, but their contribution was only 24 percent of total member contributions. This resulted partly from the relatively lower incomes of the self-employed, but also because of lack of data required to levy taxes and insufficient exploration of ways to expand the contribution base. Contribution revenues can be increased by expanding the contribution base, for instance, the incomes that are subject to tax. Another way of increasing revenues is to reduce leakage and underreporting of income, which would probably result in an increase of the number of households, including those in high-income groups, who contribute to the NHI.

Figure 12 Korea: Shares of Total NHI Revenue by Source (percent)



Source: Author from data in Jeong 2010.

Figure 13 Korea: Self-Employment and NHI Contributions by the Self-Employed (percent)



Source: Author from data in Jeong 2010.

The administrative costs of NHIC have dropped from about 9 percent in 1990 to 2.4 percent in 2008. The bulk of these costs is attributable to the collection of contributions from the self-employed. Jeong (2010) concludes that three factors have allowed the Republic of Korea to establish an effective contribution system for the self-employed population and insurance coverage for all within the relatively short period of 12 years. First, contributions for the self-employed were set below cost at a level that was deemed affordable. Second, support from the national treasury made it possible to keep this level of contributions at the relatively low level. Third, sustained economic growth has also contributed to success: In spite of rising medical expenditures and the contributions required to support of them, the capacity of the nation as a whole to pay has also grown.

5.7. ACHIEVING UHC IN INDONESIA⁸

Indonesia exhibits one of the lowest levels of total health spending in the world, with only 2.9 percent of GDP allocated to health. Low public spending on health results from poor fiscal capacity and a low priority given to the health sector by policy makers.

Despite this low resource base, in the past decade the government has taken significant steps toward universal coverage for social protection through laws 40/2004 on the National Social Security System and Law 24/2011 on Social Security Administrative Bodies (Badan Penyelenggara Jaminan, PJS). The latter law calls for integration, starting in 2014, of the current fragmented system of multiple health insurance schemes under the BPJS Health Insurance organization, creating the largest single payer system in the world.

According to Indonesia's Central Bureau of Statistics, about two-thirds of Indonesians were employed in the informal economy in 2009, often with low pay, hazardous working conditions,

8. This section draws on Mukti 2013.

and no social security (ILO 2013). A study commissioned by the ILO on extending social security to the informal economy found that in Indonesia the informal economy is both a rural and an urban phenomenon with a huge disparity among the regions. The size of the informal economy increased since the financial crisis in 1998, which stalled the economic transformation from agriculture to industrialization in Indonesia. Mukti (2013) reports that currently 73.2 million persons in Indonesia are informal workers, of these, 53.2 million are paid informal workers and 20 million are unpaid workers; substantial numbers of all informal workers are not yet covered with health insurance.

Mukti also estimates that 58 percent of Indonesians are currently covered by SHI (table 3), and concludes that achieving UHC, as mandated by law, will require significant additional public resources to subsidize the enrollment of the poor and near-poor and of informal workers. Even after the envisaged expansion of contribution-free coverage from 76.4 million covered currently by *Jamkesmas* (first row of table 3) to 96.4 million to be covered by BPJS in 2014, a substantial number of informal workers will not have health insurance. Calculations based on a 2011–12 study of the informal economy suggest that 31.2 million (paid) informal workers will not be covered by health insurance in 2014 (Mukti 2013). This coverage gap needs to be addressed to achieve UHC.

Table 3 Indonesia: Health Insurance Coverage by Scheme, 2013

Scheme	Membership	Current coverage	
		Millions of people	Percentage of total population
<i>Jamkesmas</i>	Poor and near-poor (bottom 40%)	76.4	32
<i>Askes</i>	Civil servants (nonmilitary)	14.0	6
<i>Jamsostek</i>	Formal private sector workers	4.8	3
<i>Jamkesda</i>	Subnational schemes (estimated)	36.0	15
Private	Voluntary insurance — household individual	6.6	3
Military	Military service employees	2.0	1
Total		139.8	58

Source: Mukti 2013.

The current policy defines an income cutoff point; under that point government finances SHI coverage and over it, the worker does. According to the informal economy study just mentioned, approximately one-third of all informal workers are covered with health insurance paid for by contribution assistance from the government. It is estimated that a substantial number of informal workers will be over the cutoff point and therefore will be required to pay contributions to BPJS Health. According to Mukti, this will create inequity since people with almost the same income will be subject to a different financing regime: those immediately below the cutoff getting a full premium subsidy and those immediately above receiving none. In an alternative policy scenario, were all informal workers to be covered by government funds, another equity issue would emerge: people with the same ability to pay would be treated differently based on the status of their work relationship (formal versus informal). This could lead to greater informality.

Mukti proposes that Indonesia should avoid getting “stuck” at current levels of coverage experienced in recent decades in other countries, such as Egypt (55 percent), Iran (78 percent), and more recently the East Asian countries of Philippines (65 percent) and Vietnam (58 percent). In each case, he notes, it has been the near-poor and informal sectors that have been left out of the coverage enrollment process due to insistence that it be a fully contributory scheme. China and Thailand, on the other hand, will reach full universal coverage through an essential abandonment of contributory approaches and an almost total reliance on general revenues.

The World Bank has estimated that UHC will cost an additional \$13 to \$16 billion once implemented. Mukti believes that government cannot afford currently to fully subsidize every near-poor and informal sector individual, but that it might want to consider a phased subsidy strategy which could match central funding with provincial-level, district-level, and minimal family contributions, much as was successfully done in China over the last five years. Annual premiums per capita would be less than \$30 year according to the government’s own model. Part of this phased effort might be to leverage new revenues from one or more of the following measures: a new tobacco tax, a phasing-out of the fuel subsidy, an increase in the value added tax, or gains in efficiency in government health spending.

5.8. BRAZIL’S SHIFT FROM SHI TO GENERAL TAX FINANCING FOR HEALTH

Most developing countries seeking UHC have adopted a strategy that relies on SHI to finance coverage expansion. Brazil is an exception. Until 1988 its health system was similar to others in Latin American countries: it was segmented and had a social security agency that collected premiums from formal sector workers and provided them with health care services through its own network of health care providers. In principle Ministry of Health providers offered universal access to health services to all Brazilians, but in practice the ministry rationed services in various ways due to budget limitations. Higher-income individuals wishing to have additional health insurance coverage purchased private insurance. Starting in 1988, Brazil made changes to its constitution to abandon SHI and create the Unified Health System (*Sistema Único de Saúde — SUS*), a publicly financed agency that would provide comprehensive health care to all Brazilians irrespective of income, location, age, gender, and work status. Funding for SUS comes from tax revenues and so-called social contributions (taxes that in principle were earmarked for health) from the federal, state, and municipal budgets (Government of Brazil 2013). Other sources of funding of Brazil’s health care system are private, including out-of-pocket and employer spending (Paim et al. 2011).

When Brazil made the decision to switch to a general tax-financed health system, approximately 40 percent of its working population was in the informal sector. Ten year earlier, in 1980, informality was higher, equal to 50 percent. Since the implementation of SUS, informality has expanded, and by 2007 it stood at 44 percent. A study by Bosch et al. (2007) about the determinants of labor informality in Brazil identifies multiple causes but does not attribute it in any part to changes in the financing of the health system. Estevão and Carvalho-Filho (2012) describe the high rate of informality to labor market rigidities resulting from regulations introduced by government.

A broad review of the achievements and challenges of Brazil's SUS by Paim et al. (2011) concludes that "the SUS has vastly increased access to health care for a substantial proportion of the Brazilian population, achieved universal coverage of vaccination and prenatal care, enhanced public awareness of health as a citizen's right, and invested in the expansion of human resources and technology, including production of most of the country's pharmaceutical needs." Yet they also conclude that funding for the SUS has not been sufficient to ensure adequate or stable financial resources for the public system. They report that the SUS has thus done less to increase public funding for people's health care needs than its original goal to establish a universal and equitable health system in Brazil funded with public resources. According to household survey data, in 1981, about 67 percent of total health services provided in the month before the survey were paid for by public funds, 9 percent by private health plans or insurance policies, and 21 percent by OOP spending. By 2003, the proportion of health service consumption paid for by public funds fell to 56 percent and remained at that level in 2008. Taxes that were originally earmarked for health, such as the 1997 tax on financial transactions, were diverted for other purposes. The same authors reported that in 2006 only 40 percent of the revenue raised through this tax went to SUS, while 60 percent was diverted to pay the public debt. They also noted that since 2007, reductions in the federal share of SUS financing have been only partly balanced by increased state and municipal health spending. Further, since 2003 real federal health spending has fallen. In 2007 total health spending as a share of GDP was 8.7 percent, up from 6.7 percent in 1990, but the public share of total health spending has remained rather constant since 1990, at 43 percent. Out-of-pocket health spending as a share of health financing has increased since the advent of SUS.

Offering a balanced assessment of Brazil's SUS reform is beyond the scope of this report. It appears that SUS has brought about progress in the health sector but has also been fraught with problems. Without a detailed assessment it is not possible to calculate whether SUS created better equity and efficiency than would have been achieved under the previous SHI system. The available evidence does not allow an assessment of the specific impact of SUS on access, satisfaction, and financial protection in health for informal sector workers and their families. In any case, Brazil's policy initiative does not stand out as a panacea.

5.9. SWITCHING TO A TAX-FINANCED HEALTH SYSTEM: OECD AND THAILAND

Brazil is not the only country in the world that has switched from SHI to a tax-financed health system. As is shown in table 4, among OECD countries, Denmark, Italy, Spain, Greece, and Portugal have all made a similar decision in the 1970s or 1980s. In the developing world Thailand's Universal Coverage Scheme (UCS) health reform stands out as a widely publicized initiative that sought to move away from the fragmented health system that included a SHI component, to an integrated system financed through general tax revenue.

A review of the reform's achievement and challenges was published by the Health Insurance System Research Office (2012). The review reported important gains, such as improved access to necessary health services, improved equity of service utilization, and averted medical impoverishment. It also reported that UCS led to a significant increase in government health spending and a marked decline in out-of-pocket expenditure; the elimination of the rich-poor gap in OOPS; increased equity in public subsidies; and progressivity in (or pro-poor) health expenditure.

In Thailand about one-half of the active labor force is in the informal economy. Prior to the reform, one-third of the population lacked health insurance coverage, and most of it consisted of informal sector workers. The above-named review reported that impoverishment among informal sector workers dropped as a result of the universal coverage reform. Health insurance coverage in the country is now universal.

This report cannot attempt to offer a comprehensive assessment of Thailand's and other countries' reform on health sector outcome variables for informal sector workers. It can, however, suggest that SHI is not the only viable or advisable policy option to expand health coverage in developing countries or to improve the health situation of informal sector workers. A useful discussion about the limitations of SHI in the context of achieving UHC can be found in Wagstaff (2007).

The remainder of this section presents eight additional country case studies covering three regions of the developing world, to illustrate additional policy approaches and results related to the provision of health coverage for informal sector workers and their families. The cases draw on the author's knowledge of these countries and information obtained by this author through structured interviews of expert country informants, with supplemental information obtained from the literature. The countries are, in ascending order of purchasing power-adjusted per capita income: Ghana, Cambodia, Vietnam, the Dominican Republic, Colombia, Peru, Mexico, and Chile. Selected demographic, economic, and health resource indicators are presented for these countries. The cases provide a brief description of the health insurance system and its coverage of different population groups. They also present information about the magnitude of the informal sector and the efforts made by governments to promote coverage with health insurance. Figure 14 shows the extent of work informality in the selected countries 15 shows selected variables for the

Table 4 OECD Countries: Choice of Health Financing System

Country	Before the mid-1970s	At the present time
Denmark	SHI	GTF (1973)
Finland		GTF
Italy	SHI	GTF (1978)
United Kingdom		GTF
Norway		GTF
Spain	SHI	GTF (1986)
Canada		GTF
Greece	SHI	GTF (1983)
Ireland		GTF
Portugal	SHI	GTF (1979)
Sweden		GTF
Austria	SHI	SHI
France	SHI	SHI
Germany	SHI	SHI
Japan	SHI	SHI
Switzerland	SHI	SHI
Holland	SHI	SHI
Luxemburg	SHI	SHI
Belgium	SHI	SHI
Israel	SHI	SHI
Hungary		SHI (1989)
Lithuania		SHI (1991)
Czech Republic		SHI (1992)
Estonia		SHI (1992)
Latvia		SHI (1994)
Slovakia		SHI (1994)
Poland		SHI (1999)

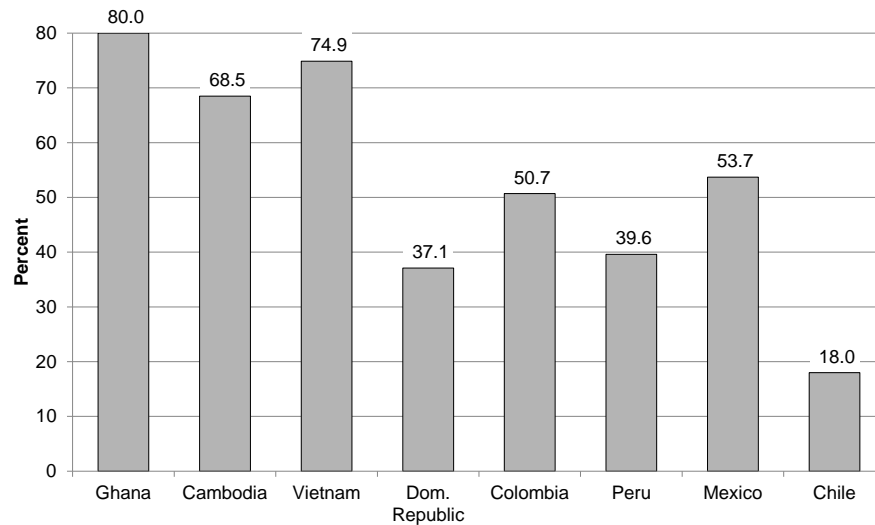
SHI: Social health insurance.

GTF: General tax financing.

Source: Saltman, Busse et al. (2004)

country cases, characterizing their level of economic development, demography, employment, urbanization, health expenditure and resources, and tax revenue.

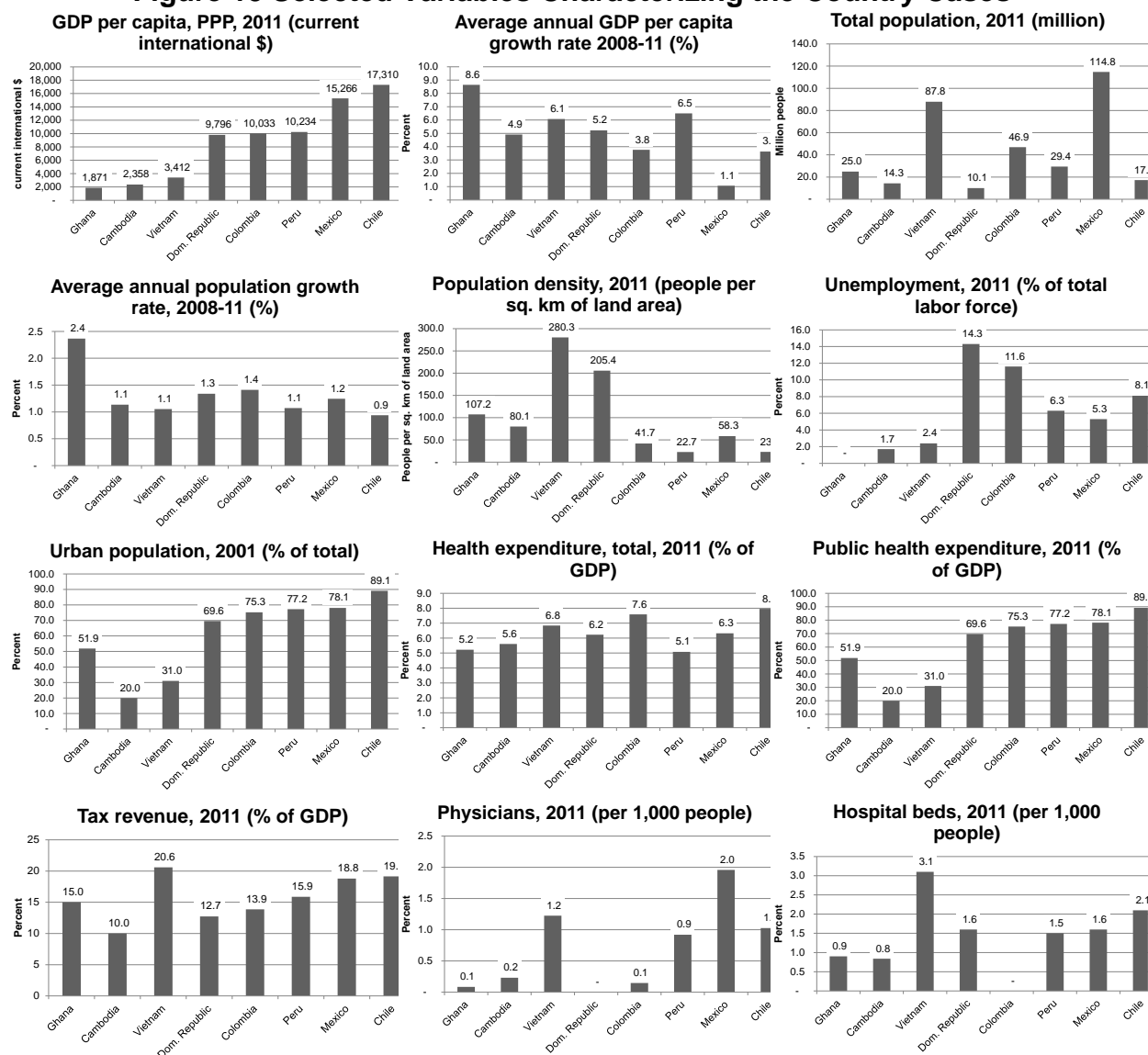
Figure 14 Eight Case Study Countries: Informality in Employment, around 2010 (*percent of population*)*



Sources: Calculated by the author, based on poverty data from the World Bank DataBank, and information on informality from the sources cited in each of the case studies of section 5.

* Countries from left to right are in ascending order of income.

Figure 15 Selected Variables Characterizing the Country Cases



Source: Elaborated by the author from World Bank's World DataBank, Health Nutrition and Population Statistics at <http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=health-nutrition-and-population-statistics>

5.10. GHANA⁹

As elsewhere in Sub-Saharan Africa, Ghana's health system was created after independence with a tax-funded government network of health care providers that offered services free of direct charge to all citizens. To alleviate fiscal pressures, in the mid-1980s Ghana introduced user fees in government health facilities, and this improved the availability of drugs and supplies among these providers. During the 1990s, community health insurance developed across the country. In

9. Information in this section comes from personal communication with Irene Agyepong (School of Public Health, Ghana) and Evelyn Awittor and from the cited references on Ghana.

2000, the New Patriotic Front promised to abolish user fees and to set up the National Health Insurance Scheme (NHIS) to remove financial barriers to health services. The National Health Insurance Act 650 of 2003 positioned NHIS to provide a broad range of health care services to Ghanaians through district mutual and private health insurance schemes. Insurance enrollment began in earnest in late 2005. Until then, less than 5 percent of all Ghanaians had some form of health insurance coverage, mostly provided by large employers and by some mutual health organizations.

The NHIS is financed through the following sources: (a) sales tax, value-added tax, and levies (2.5 percentage points), which fund most of those who are exempt; (b) payroll taxes, Social Security and National Insurance Trust (SSNIT), at 2.5 percentage points, which covers most of the SSNIT contributors and pensioners; and (c) voluntary premiums, which cover most of the informal sector workers (Saleh 2013).

According to data from Ghana's 2008 Demographic and Health Surveys (DHS), coverage by the NHIS was 39 percent for women and about 30 percent for men (Makinen et al. 2011). Total coverage was estimated at 34.5 percent.

It is estimated that informal employment accounts for 80 percent of all employment in Ghana (Osei-Boateng and Ampratwum 2011). Enrollment in NHIS by informal workers is not mandatory and calls for the payment of an annual premium equal to about US\$10 per family member, except for children under 18, who by law are exempt. Reportedly, the government of Ghana is experiencing difficulties in enrolling individuals from the informal sector. According to one report, by the end of 2006, only about 22 percent of workers in the informal sector had enrolled in the NHIS (Wahab 2008).

Shieber et al. (2012) conclude that “the fact that an estimated 70–90 percent of Ghana's labor force works in the informal sector and that most firms are very small provides significant challenges to both revenue collection and enrollment in the NHIS”. These authors also note that premiums for informal sector workers are low relative to their costs and that 70 percent of firms in Ghana have fewer than five employees. These facts and the high share of informal employment are partially responsible for NHIS's currently low revenues and premium collection. The authors conclude that if Ghana cannot productively employ people entering the labor force, this may lead to lower economic growth, tax revenues, and NHIS premium income.

5.11. CAMBODIA¹⁰

One-third of Cambodia's population lives in poverty (World Bank 2013) and about 20 percent live in extreme poverty. Cambodia's private sector is dominated by the informal economy, which accounts for 80 percent of GDP and close to 90 percent of employment. Much of informal employment is found in agriculture. Only around 7,000 enterprises are registered and are focused on garments and tourism (International Labour Organization 2007).

10. Information in this section comes from personal communication with Chhorn Sao (Health Financing Manager at Reproductive Health Association of Cambodia) and from the cited references on Cambodia.

Out-of-pocket health spending is the main source of health financing in Cambodia, as in several other Asian countries (for example, China, India, Vietnam), representing more than two-thirds of total health spending. Government health care providers are strongly dependent on user fees to supplement health workers' incomes and to purchase drugs and supplies.

The chief mechanisms that confer financial protection in health to the population are health equity funds (HEF) and community-based health insurance (CBHI). HEFs pool resources from government and donors to finance health care for the poor who seek ambulatory and inpatient health care in government health facilities. HEFs cover a set of defined inpatient and outpatient health services. Two types of means tests are used in the country to assess HEF eligibility. One was adopted by the MOH for post-identification, that is, to assess eligibility of individuals applying for HEF support when seeking health care. Another was adopted by the Ministry of Planning to determine HEF eligibility at the household level. Thus, HEFs function as a safety net for poor, uncovered individuals when they are seeking health care, and as insurance for households that have qualified for HEF coverage. Individuals covered by an HEF may get a partial or a full user-fee waiver in government facilities. It is estimated that 80 percent of Cambodia's poor are covered or get coverage from an HEF.

Voluntary CBHI schemes, which aim to cover informal-sector workers who can afford to pay the premiums, are implemented in several health operational districts. Enrollment in CBHI involves a periodic prepayment and may or may not require copayments at the time of service delivery. Like HEFs, CBHI schemes rely exclusively on public health care providers. Current coverage of CBHI is a mere 2 percent of the population. A reason for this low coverage is the poor reputation of the quality of health care in government health facilities, which are the sole providers of CBHI. The nongovernmental organization Research and Technology Exchange Group (*Groupe de Recherche et d'Echanges Technologiques*, GRET) has set up CBHI in Cambodia and is supporting its further development. It has documented improved access to health services for its members and better referral patterns (International Labour Organization 2007).

Cambodia's government successfully scaled up HEFs to much of the country in the mid- 2000s, replicating a range of designs that had previously been carried out by donors as small pilots in various parts of the country. Currently, the government, MOH, and development partners are preparing to further scale up HEF and CBHI, and to move their administration from nongovernmental agencies currently managing them to the jurisdiction of a national institution or administration (Annear and Ahmed 2012). In addition, policy makers are discussing the option of making health insurance compulsory and creating a national agency to manage social protection for informal sector workers.

5.12. VIETNAM¹¹

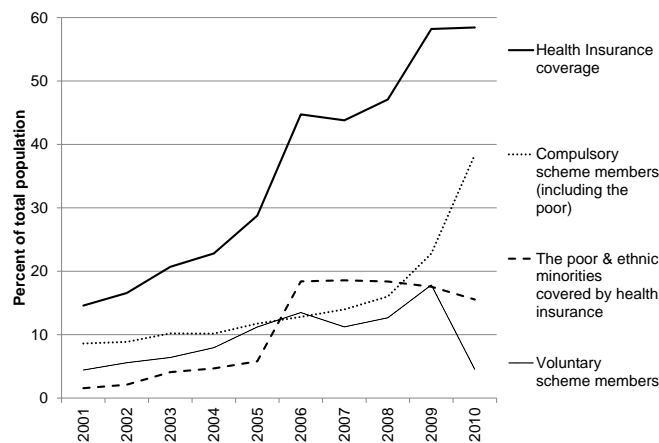
Vietnam's Health Insurance Law of 2008 mandates enrollment of all citizens in the country's SHI agency, Vietnam Social Security (VSS). By the end of 2010, nearly 60 percent of the country's population was covered by SHI (figure 16) (Tien 2012). The 2008 law envisioned that farmers would have SHI coverage by 2012 and remaining groups of the informal sector by 2014 (see the timing of enrollment of various population groups into SHI in figure 19).

To promote enrollment in SHI, certain population groups, including the poor, minority ethnic groups, and households living in disadvantaged areas are not required to make any contribution to SHI. In addition, government subsidizes 70 percent of a flat premium for the near-poor and 30 percent for medium-income farmers. High-income farmers are required to contribute the full premium. While SHI beneficiaries can use both public and private providers, public providers are dominant in Vietnam (for example, 95 percent of all hospital beds are public).

Vietnam, like other countries in the region, has recognized that expanding coverage based on contributory mechanisms alone is not feasible in a context where a large share of the population is still poor, in the informal sector, or both (Somanathan et al. 2012). The expansion of SHI in Vietnam has been financed largely through tax subsidies to cover insurance premiums for the poor and other vulnerable groups. As SHI expanded rapidly during 2006 to 2010, government share of SHI revenues rose from 29 percent to almost 50 percent. Government health spending increased at a faster rate than economic growth in the same period. By comparison, income elasticity of government health spending was only about 0.5, which indicates that there was a clear upward shift in government health spending after 2006. This includes government subsidies to cover the premium costs of enrolling the poor and other vulnerable groups, and partial subsidies to cover the premium costs of enrolling the near-poor. Contributions from employers, employees, and other individuals have declined as a share of total revenues. Overall, government's share of total health expenditure was higher in the second half of the decade 2001-2010 than in the first half (figure 17), reflecting government's effort to increase public funding for SHI.

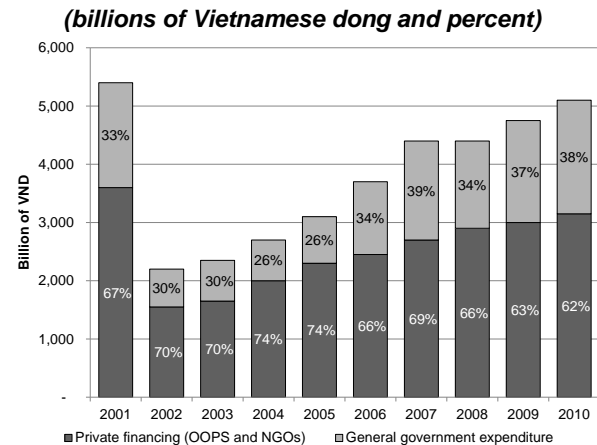
11. Information in this section comes from personal communication with Tran Van Tiem (Vietnam Social Security) and from the cited references on Vietnam.

Figure 16 Vietnam: SHI Coverage by Regime, 2001–10 (percent)



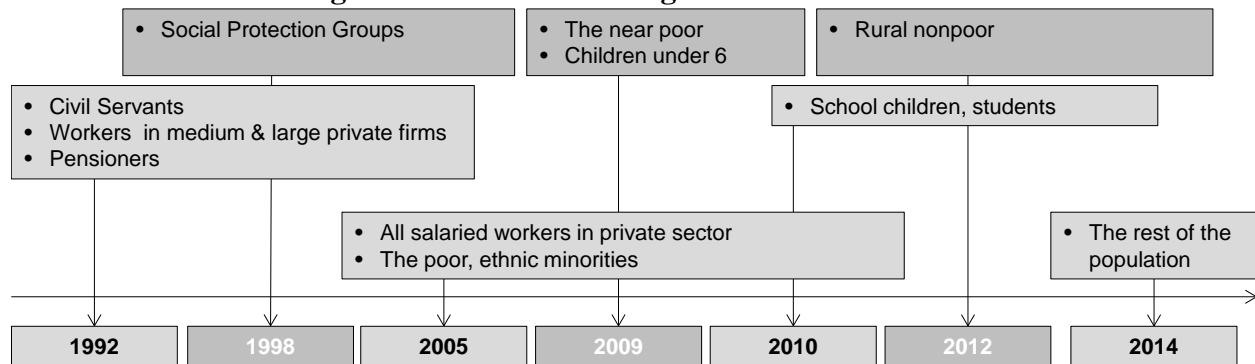
Source: Tien 2012.

Figure 17 Vietnam: Health Expenditure Trends and Structure, 2001-2010 (billions of Vietnamese dong and percent)



Source: Somanathan et al. 2012.

Figure 18 Vietnam: Timing of Enrollment in SHI



Source: Tien 2012.

Informality is very high in Vietnam: three out of four of its 46 million workers are informally employed (Meibner 2011). Efforts to expand coverage to informal sector workers were tried with community financing schemes in 1983 and the Voluntary Health Card Scheme in 1991. However, neither program was successful due to problems of adverse selection and moral hazard that derived from their voluntary nature (Somanathan et al. 2012).

Currently, about 60 percent of informal sector workers are covered by SHI. Formal and informal sector workers with SHI coverage have the same benefits package and official level of copayment (approximately 20 percent of health care costs). The poor have a lower copayment of only 5 percent. There is no ceiling for copayments by SHI beneficiaries. That only a fraction of informal sector workers are covered by VSS may be explained by (1) low quality of care in the primary health care network discourages enrollment in SHI, (2) the 30 percent premium constitutes a financial barrier for enrollment for the near-poor, and (3) SHI confers limited financial protection because copayments are not capped and public providers demand high informal payments.

In their recent World Bank report, Somananthan et al. (2012) recommended a series of measures to achieve UHC in Vietnam, including: (1) expanding the breadth of coverage of SHI, particularly for those hard-to-reach groups, such as the near-poor and the informal sector; (2) substantially increasing general revenue subsidies to pay for expanded coverage for informal sector workers and their families; (3) fully subsidizing the premiums for the near-poor; (4) making enrollment mandatory for all citizens and introducing measures to enforce enrollment compliance; and (5) providing financial incentives to promote family coverage for formal sector workers, instead of only employee coverage (as is currently the case).

Somananthan et al. argued that the first two measures were administratively more efficient than attempting to expand contributory SHI for the near-poor and the informal sector, and were an effective means to curtail adverse selection. They also concluded that increased health insurance coverage would be ineffective unless actions were taken to reduce OOPS by the insured. Proposed actions included enforcing strict controls on balance billing and providing a basic benefits package that could be fully financed through VSS reimbursements and subsidies. The authors of the report argued that both actions required systemic reforms over the medium to longer term, including reforms to provider payment mechanisms and the delivery system. In the short-to-medium term, proposed measures to contain the cost of OOPS included strengthening the implementation of the copayment policy, making the policy more transparent, further reducing copayments for the poor, introducing catastrophic cost coverage, and shifting patients' preference toward lower-cost generic drugs.

5.13. DOMINICAN REPUBLIC¹²

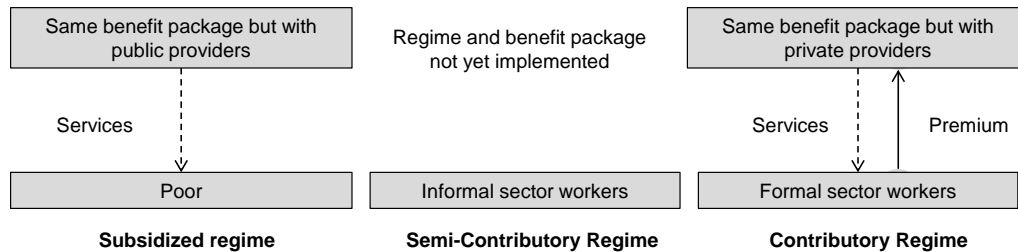
The Dominican Republic emulated many elements of the Colombian *Ley 100* reform (see Colombia's case below), but added some complexity to it. The Family Health Insurance Law 87-01 (2001), created three regimes (instead of Colombia's two) — the co-called Contributory Regime (CR), intended for formal sector workers; the Contributory Subsidized Regime (CSR), intended for nonpoor informal sector workers; and the Subsidized Regime (SR), for the poor. The reform started off slowly in the public system in 2002 and the CR, along with the coverage expansion process, came into effect at the end of 2007.

In the CR, about 10 percent of a worker's salary is allocated to health, with a split in payment between the employee (3 percent) and employer (7 percent). As in Colombia, there is also a cap (equal to 10 minimum legal salaries), on the salary or income that is subject to the 10 percent health contribution. Although the CSR has not yet been implemented, the law states that informal sector workers should contribute a multiple of the minimum wage (depending on the average income of each occupational category). The government would subsidize the amount paid by the employer (as in the CR). The government uses a means-testing instrument known as the Single System of Beneficiaries (*Sistema de Identificación de Beneficiarios-Índice de Condiciones de Vida*, SIUBEN), and has developed a national conditional cash transfer (CCT) program, to determine citizens' eligibility for the SR.

12. Information in this section comes from personal communication with Magdalena Rathe (Founder and Executive Director of *Fundación Plenitud*) and from the cited references on the Dominican Republic.

Members of the two regimes that have been implemented, the CR and the SR, are expected to receive the same benefits package, but the services they receive differ because they are delivered by different kinds of providers. The CR relies on private providers while the SR uses mostly public providers. Coverage in both is for the entire family (figure 19).

Figure 19 Dominican Republic: Beneficiary Groups and Health Benefits



Source: Author from personal correspondence with Magdalena Rathe.

The same incentives to evade contributions, discussed in Colombia's case below, may be present in the Dominican Republic's SHI system. Thus, it is likely that some nonpoor informal sector workers have managed to get coverage under the SR, that formal- and informal-sector workers underdeclare their income, and that informal sector workers have evaded their obligation to enroll in the system.

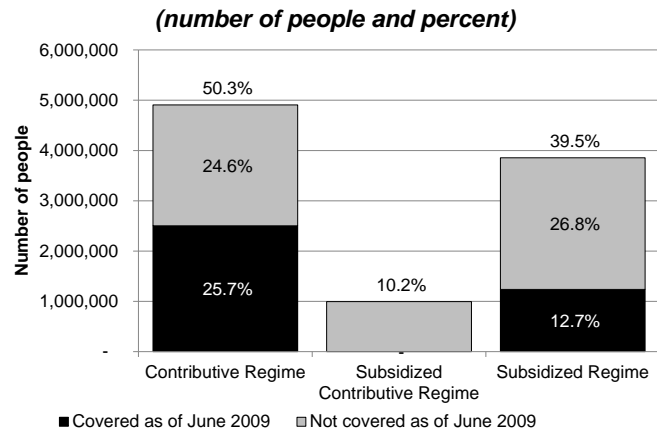
In 2007, 27 percent of the population was covered by insurance. In mid-2009, just two years after the launch of the CR, coverage had risen to almost 40 percent (figure 20). Rathe estimates that about one-half of formal sector workers still remain to be enrolled in the CR, and two-thirds of the poor also remain to be enrolled in the SR (Rathe 2010). The yet-to-be-implemented CSR would have a target beneficiary population of about 1 million people, or 10 percent of the country's population. According to Rathe, if the government decided to achieve full coverage with all three regimes, it would have to increase its public budget by between US\$270 to US\$690 million, that is, between 22 percent and 56 percent of the public health expenditure in 2008. This, she thinks, is possible since it represents only 7 percent of the public budget approved for 2010.

The main obstacle in implementing the CSR for informal workers is the difficulty inherent in the collection of contributions. One proposed solution is the elimination of the CSR; the inclusion of all poor informal workers in the SR; and the elimination of government premium subsidies for high-income independent workers, who would then belong to the CR.

Informal sector workers account for 56 percent of the Dominican Republic's labor force, and a high percentage of these receive an income equivalent to or less than the minimum wage (Conep 2008; Rathe 2010). To assess the insurance status of working-age individuals by employment category, the author analyzed data from the 2007 Demographic and Health Survey, which included a special module about employment of men and women, and also asked about health insurance coverage of each household member. Table 5 reports some results pertaining to the type of employment of working-age individuals who declared having worked in the preceding month and identified their health insurance coverage.

Employed individuals represented 55.0 percent of respondents (first column of table 5) and included both formal and informal workers. The self-employed, together with domestic and unpaid family workers, represent 38.4 percent of the respondents and may in their majority have been informally employed. Overall, health insurance coverage was 31.3 percent (second column), with broad variations by occupational category. Employed individuals had the highest rate of insurance coverage, 40.9 percent, while the lowest rates occurred among domestic workers, the self-employed, and unpaid family members. Two-thirds of those declaring they were employed were in the CR and one-third of the SR. Opposite proportions occurred among the self-employed, domestic, and unpaid family workers. Thus, some employees, who in their majority may have been informal, qualified as poor and were covered by the SR, while most of the presumed informal were in the SR, as well.

Figure 20 Dominican Republic: Population Covered and Not Covered as of June 2009



Source: Rathe 2010.

Table 5 Type of Employment of Working-Age Individuals Who Declared to Have Worked in the Preceding Month and Health Insurance Coverage

Occupational categories	Structure of occupational categories	Are you a member of any health insurance?		Who is your insurer?	
		Yes	No	Contributory Regime (ARS Contributivo)	Subsidized Regime (ARS Subsidiado)
Domestic work	4.6	16.7	83.3	32.5	67.5
Don't know	0.1	30.8	69.2	n.a.	n.a.
Employee	55.0	40.9	59.1	66.7	33.3
Employer	6.3	29.5	70.5	52.8	47.2
Member of cooperative	0.2	19.5	80.5	28.6	71.4
Self-employee	30.5	17.8	82.2	37.8	62.2
Work for family member without payment	3.3	19.0	81.0	35.6	64.4
Total	100.0	31.3	68.7	59.1	40.9

Source: Compiled by the author using data from Centro de Estudios Sociales y Demográficos and Macro International, Inc. 2007.

Note: n.a. = not applicable.

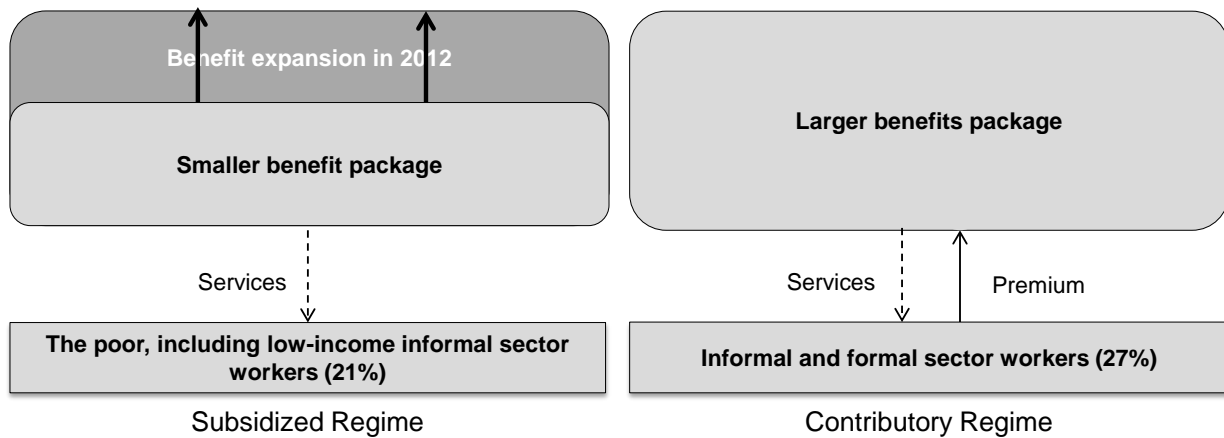
5.14. COLOMBIA¹³

In 1994, a major reform of the health system, known as *Ley 100* (Law 100), sought to achieve UHC through SHI by creating two regimes, a Contributory Regime (CR) for the nonpoor and a Subsidized Regime (SR) for the poor. Affiliation in the CR was mandatory for dependent and independent workers whose monthly income was greater than the minimum legal salary (MLS) or twice the MLS, respectively. Affiliation to the CR involved a monthly contribution equal to 12 percent of the worker's salary. For dependent workers, this contribution was split between the employee (4 percent) and the employer (12 percent), whereas independent workers had to finance the full 12 percent themselves. The salary or income subject to the 12 percent contribution was capped at 20 times the MLS. Individuals who did not qualify for the CR because they had no income or their income was below the legal threshold had to enroll in the SR. Benefits in the CR were self-financed, with 11 percentage points of the affiliates' contributions. Benefits in the SR were financed with 1 percentage point contributed by the affiliates of the CR plus subsidies from the nation's treasury.

Initially, the SR had a benefits package that was substantially smaller than that of the CR. The original plan, however, was that the SR's benefits package would progressively grow to equal that of the CR by 2000 (figure 21). That plan did not come to fruition, and the two benefits packages remained different until 2012, when the government implemented a measure to make them equal (see below).

13. Information in this section comes from personal communication with Adriana Ávila (actuary at *Instituto de Evaluación Tecnológica en Salud* — IETS) and Ursula Giedion (consultant at Inter-American Development Bank) and from the cited references on Colombia.

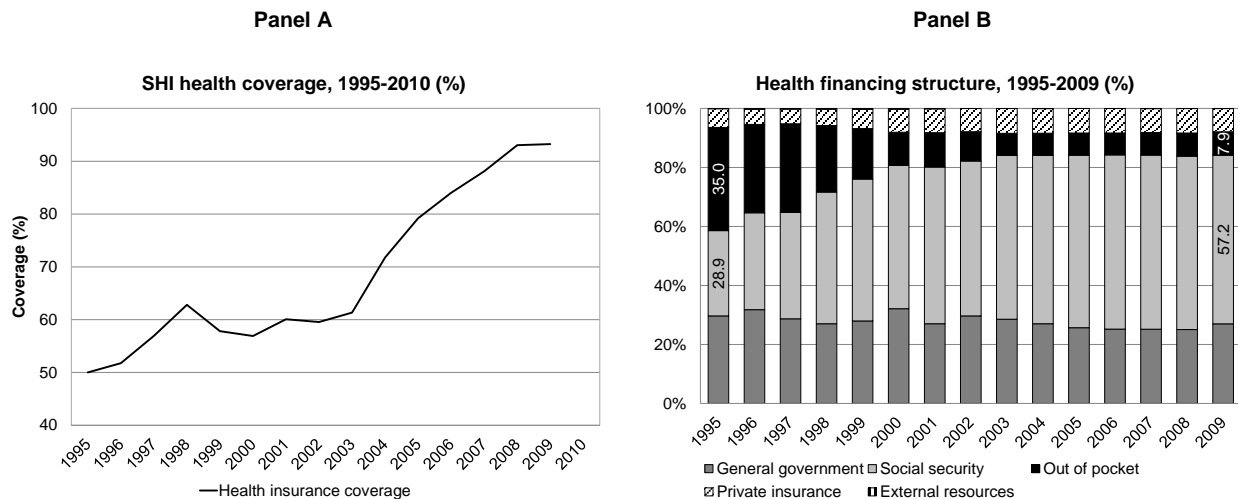
Figure 21 Colombia: Beneficiary Groups and Health Benefits



Source: Author.

Colombia's reform made it possible to achieve UHC by 2009 (see panel A of figure 22). Furthermore, there is substantial evidence that SHI coverage was not just nominal but that it improved effective access to health care and financial protection against health shocks for beneficiaries (Giedion et al. 2009). The improvements in access and financial protection made possible through the reform are demonstrated by the marked reduction in the system's reliance on out-of-pocket payments as a source of health financing (panel B of the figure).

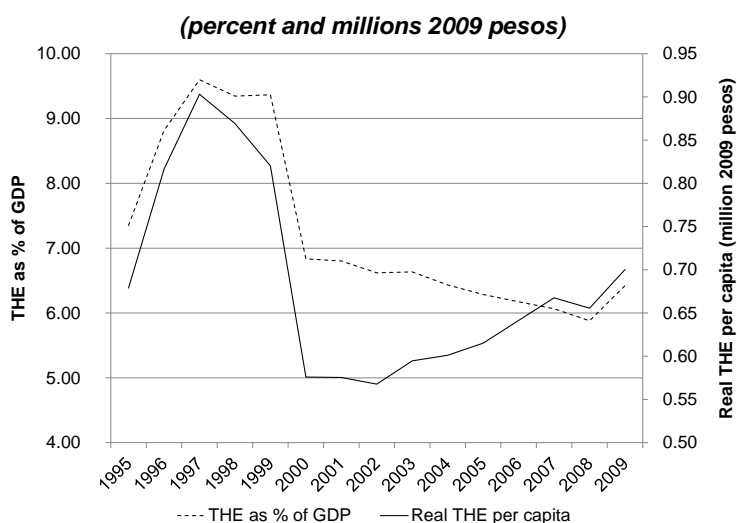
Figure 22 Colombia: SHI Health Coverage and Health Financing Structure, 1995–2009



Source: Bitrán 2012b.

It is estimated that about 50 percent of Colombia's workers are informally employed, up from 33 percent in the early 1990s (DANE 2013). Such a high rate of work informality has not interfered with the government's objective to achieve full SHI coverage. Colombia's experience is therefore important to all those countries with similar income levels that are striving to achieve UHC. Further, whereas in the early years of the reform total health expenditure as a share of GDP experienced a large increase, over the next decade this share fell to below its starting level at the beginning of the reform (figure 23).

Figure 23 Colombia: Total Health Expenditure as a Percentage of GDP and in Real per Capita Terms



Source: Bitrán 2012b.

Note: THE = total health expenditure.

Similarly, total per capita health expenditure in the country increased in real terms immediately after the reform started and achieved a maximum four years into the reform. It subsequently fell by 2009 to its starting value. These are puzzling and, if correct, encouraging results because there is concrete empirical evidence that during these 15 years, access to health care improved for Colombians, particularly for those in the SR, who prior to the reform had limited access to MOH health care.

Despite its many achievements, Colombia's health reform has encountered significant problems along the way. First, there has been considerable evasion and elusion of contributions in the CR. Second, public resources were insufficient to meet the reformers' original objective of equalizing the SR's benefits package with that of the CR. Third, there have been a growing number of legal suits by SHI beneficiaries who demand financial coverage for services not included in the benefits packages of the CR and the SR.

Evasion and elusion of contributions to the CR. These took at least three forms: individuals in the CR underreported their income to reduce their contribution to health, nonpoor individuals misrepresented their socioeconomic status to be classified as poor and therefore qualify for the SR, and individuals did not join the CR despite the legal mandate to do so. A study commissioned by MOH in the early 2000s concluded that the CR was failing to collect 36 percent of its potential revenue. About one-half of this uncollected revenue resulted from failure to affiliate by individuals who should join the CR, and about one-third from underreporting of affiliates' income (Bitrán y Asociados and Econometría 2001). The same study also concluded that SHI health insurers had an economic incentive to affiliate independent workers from both the formal and informal sectors in either the CR or SR, but, as public subsidies existed for the SR and a risk compensation fund for both the CR and the SR, they did not have an incentive to verify the applicants' socioeconomic status or income. The study also concluded that large segments of the

population, particularly those with informal employment, remained outside the SHI system and chose to enroll only in the presence of an illness.

In 2007, to reduce evasion and elusion, the government decided to link workers' health contributions to their pension contributions. In Colombia (as in Chile), pension funds are individual and not pooled: The amount of money individuals receive from their pension fund is proportional to the money they put in, and therefore individuals do not have an incentive to substantially under declare their income. In contrast, health benefits that individuals received in the CR were the same irrespective of their declared income. By linking pension and health payments, government was able to reduce evasion and elusion in SHI.

Insufficient public resources. The reformers' original plan was that by 2000, six years into the reform, the benefits package of the SR would grow to equal the benefits package of the CR. But Colombia experienced a recession in the late 1990s, the first in decades, and this prevented the government from raising enough tax revenue to achieve this objective. After the recession ended, however, public resources remained insufficient to accrue the SR's benefits package, or rather, competing public priorities diverted resources. An additional problem contributed to the postponement of this policy: CR beneficiaries filed legal suits demanding coverage for benefits excluded in the official benefits package. (This problem is discussed next).

The role of the judicial system in granting health benefits. In the late 1990s, beneficiaries of CR invoked their constitutional right to health protection in legal courts; they demanded coverage for benefits left out of the official benefits package, . The judges systematically granted the benefits, and the number of legal suits has been skyrocketing since. The cost of financing these extracontractual benefits eroded the finances of health insurers and the SHI system. This is one of the main reasons the Colombian system is about to be reformed once more.

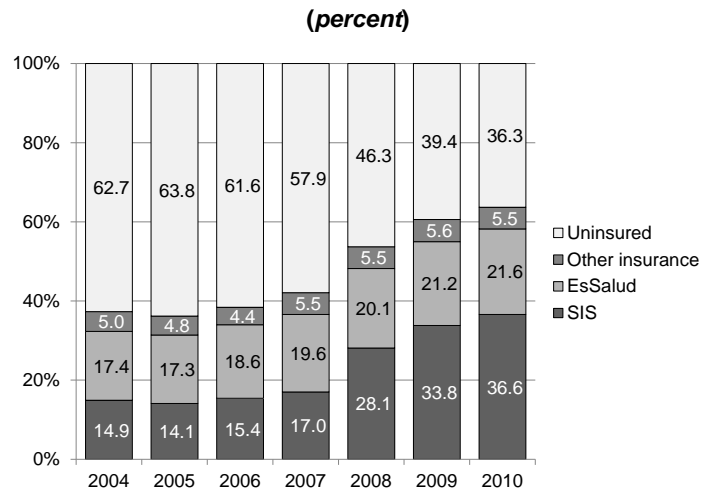
In 2012, the government implemented a measure to equalize the benefits packages of the two regimes by expanding the contents of the SR package (see figure 21). Some experts think this will threaten the financial stability of the system as people will be more likely to misrepresent their socioeconomic status to qualify for the SR.

Despite the many achievements of Colombia's health reform, the government of President Santos is currently designing a major reform to the health system to create a unified health system. It is said that health financing would primarily come from general revenue sources and that payroll contributions may be reduced or eliminated altogether. Colombia therefore seems on the path to moving away from an SHI model toward a national health system. Brazil made a similar switch in 2000 by abolishing the country's SHI system and implementing the new Unique Health System (*Sistema Único de Saúde*), which is universal and financed from federal, state, and municipal taxes.

5.15. PERU¹⁴

Peru also has a segmented health sector. The poor and low-income individuals working in the informal sector can voluntarily join the Integral Health Insurance (Seguro Integral de Salud, SIS) program and exclusively use public providers. Families wishing to qualify as beneficiaries of SIS are subject to a means test known as the Household Targeting System (*Sistema de Focalización de Hogares*, SISFOH) — a means test that is common for several publicly subsidized social sector programs in the country.¹⁵ The SIS was created in 2002 and is financed by government from general revenue. This insurer reimburses on a fee-for-service basis the variable cost of health care to public providers. By the end of 2010, about one-third of Peruvians was covered by SIS.

Figure 24 Peru: Health Insurance Coverage within and outside SHI, 2004–10



Source: Prieto, Cid, and Montañez 2012.

Formal sector workers represent about one-fifth of those employed and must by law enroll with the social security institute known as EsSalud, which operates its own network of health care providers and delivers services at no direct cost to its beneficiaries. It self-finances with a 13 percent payroll tax, which is split between health and pension. Formal sector workers can opt out of EsSalud and redirect a fraction of their contribution to private SHI insurers known as Health Promoting Enterprises (*Empresas Promotoras de Salud*, EPS) to obtain ambulatory health care from the private sector while maintaining the right to free-of-charge hospital care from EsSalud providers.

High-income individuals can buy private insurance and health care. Those with private health insurance accounted for 5.6 percent of the population in 2010, a percentage that has remained rather constant in recent years.

Between 2004 and 2010, the proportion of uninsured Peruvians dropped from two-thirds to one-third. To judge this trend it is indispensable, however, to assess what exactly is covered by each of these insurers. This is discussed further below in this section.

Informal sector workers, whether employees or self-employed, represent three-fourths of Peru's labor force (Gamero-Requena and Carrasco, circa 2012). They can voluntarily enroll with EsSalud. It is estimated that EsSalud has 50,000 voluntary enrollees and their dependents, while

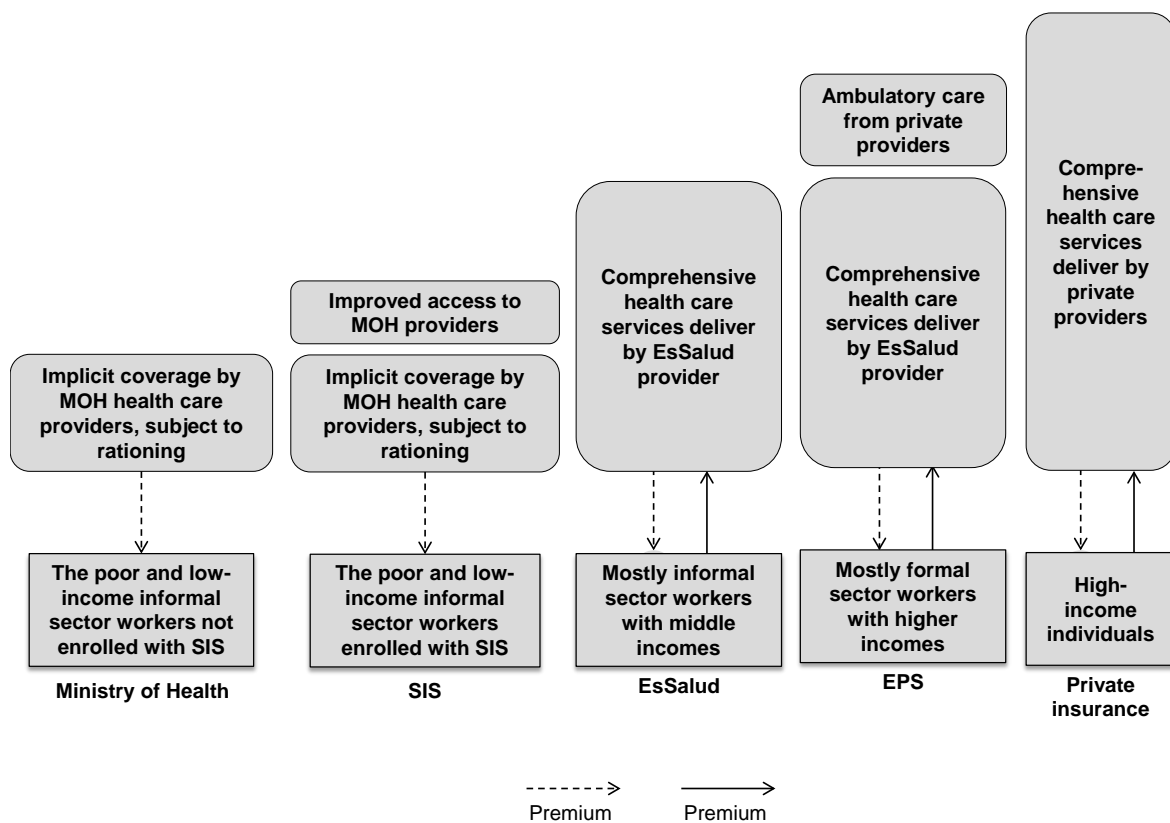
14. Information in this section comes from personal communication with Vilma Montañez (consultant) and from the cited references on Peru.

15. Families in poverty may receive cash subsidies in their own bank accounts; due to a faulty assessment process, this disqualifies them from joining SIS.

the national population of nonpoor independent workers and their families is 38 percent of the population, or about 11.4 million people. Thus, voluntary enrollment in EsSalud by informal sector workers is negligible. Workers in microenterprises should have been covered by EsSalud, but EsSalud management felt it would be too difficult to collect contributions from this group and too risky to insure it, given frequent work turnover. Thus, it transferred the responsibility to SIS.

To promote SIS enrollment by microenterprise workers, the government subsidizes approximately one-half of what would be the regular premium, or 20 nuevos soles per family per month (US\$7.91). Average SIS monthly expenditure per beneficiary is 40 soles (US\$15.80). Independent and informal sector workers can also join SIS's Semi-Contributory Regime by paying the same 40 soles per family per month. The SIS's Semi-Contributory Regime has a mere 7,000 beneficiaries, also a negligible proportion of Peru's 11.4 million independent workers and their family members.

Figure 25 Peru: Health insurance Beneficiary Groups and Health Benefits

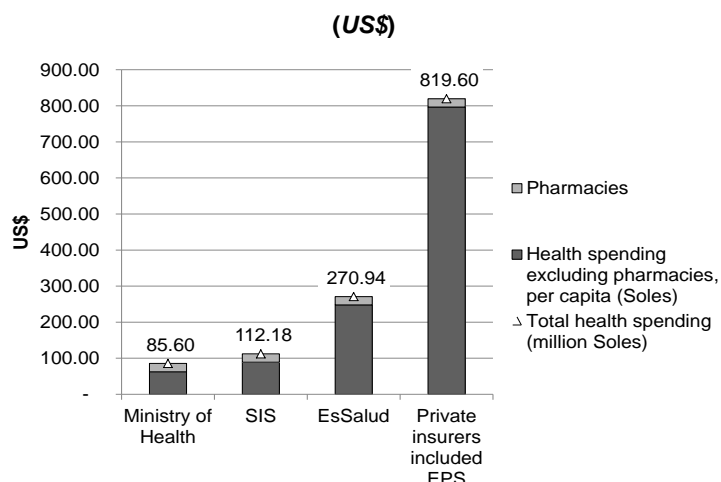


Source: Author.

SIS has 11 million beneficiaries. The beneficiaries of SIS's Subsidized Regime receive the full Essential Health Insurance Plan (*Plan Esencial de Aseguramiento en Salud*, PEAS) benefits package plus additional coverage, whereas the beneficiaries of its Semi-Contributory Regime receive only the PEAS benefits package.

Reaching the UHC goal often leads developing country decision makers to expand nominal coverage without necessarily bridging gaps in effective access to health services by different population groups with coverage. In the case of Peru, to assess any gaps in effective coverage, this author used available data for 2005 and concluded that the gaps exist and are large (see figure 26). In 2005, Peruvians without any explicit coverage but with implicit insurance from MOH represented 63.8 percent of the population and obtained, on average, health services worth US\$86 that year. Those who were covered by SIS represented 14.1 percent of the population and received annual benefits worth US\$112. The beneficiaries of EsSalud were 17.3 percent of Peruvians and received average benefits equal to 271 soles. Finally, the small minority (4.8 percent) of Peruvians with an EPS or with private health insurance obtained annual benefits of US\$820.

Figure 26 Peru: Per Capita Health Spending according to Health Insurance Coverage, 2005



Sources: Author based on Prieto, Cid, and Montañez 2012 and various sources cited above (Petrera 2008; Prieto, Cid, and Montañez 2012).

In 2009, Congress passed a reform known as the Universal Health Insurance Law (*Ley de Aseguramiento Universal en Salud*), which mandated the provision by all insurers in the country of a benefits package known as the Essential Health Insurance Plan (PEAS), mentioned above. Its actuarial cost of US\$107 exceeds average spending by MOH but is similar to the average benefits received by SIS beneficiaries.

5.16. MEXICO¹⁶

Prior to the 2003 reform, which created the System of Social Protection in Health (SSPH), Mexico's health system was segregated and presented large inequalities in both health insurance coverage and access to health services. Formal private sector workers and their families were affiliated with and received health protection from the Mexican Institute for Social Security (IMSS), while federal public workers were covered by the Institute for Social Security and Services for Civil Servants (ISSSTE). In 2002, prior to the reform, 38.7 million Mexicans were covered by social security, representing 37 percent of the total population (table 6). Affiliation in social security for these workers was mandatory. Health services for them were delivered mainly by providers managed by their social security institutions.

16. Information from this section comes from personal communication with Dr. Eduardo González-Pier (Director at Funsalud); and from the cited references on Mexico.

In addition, about 1.8 million Mexicans were covered by voluntary private health insurance and obtained health care mainly from private providers. The rest of the population, or approximately 64 million people (61 percent of the population), had no explicit health insurance coverage (Knaul et al. 2012). Informal sector workers and their families represented about one-half of Mexico's population, or 52 million people (International Labour Organization, no date). They were part of the 64 million uninsured Mexicans who relied heavily on health care providers from MOH.

In 2004, when the reform began, there was a large imbalance in the amount of public financing available for health. The 38.7 million Mexicans insured through social security obtained health services worth US\$209 per person per year. In contrast, the 64 million uninsured Mexicans obtained on average health services worth US\$102 per capita per year.¹⁷ The ratio between these two figures was 2.0.

The SSPH reform sought to expand health insurance coverage in the country to improve access to explicitly guaranteed, quality health services and enhance financial protection for health. With the reform, individuals not covered by mandatory social security can enroll with *Seguro Popular*, or Popular Health Insurance, a health insurer financed mainly through general revenue resources from the federal and state governments. Enrollment with *Seguro Popular* calls for a premium that is determined according to the level of household income. It has exclusions of preexisting medical conditions and covers a broad package of health services known as the Universal Health Services Catalogue (*Catálogo Universal de Servicios de Salud*, CAUSES). In addition, it covers a list of high-cost medical interventions centrally paid by the Fund for Protection against Catastrophic Health Expenditures (still very limited, it does not yet include chronic renal failure, many cancers, and other high-cost diseases, for example).

Workers not covered by mandatory social security can also enroll in Family Health Insurance (*Seguro de Salud para la Familia*, SSFAM), a mechanism created in 1997 and managed by IMSS, through which workers without a work contract can obtain health insurance coverage for themselves and their families by paying a monthly premium (Instituto Mexicano del Seguro Social 2012). SSFAM coverage can be acquired individually or collectively (for example, for all the workers of an informal sector firm) and calls for an age-adjusted premium per person that is set by law. The SSFAM premium is higher than that of *Seguro Popular*, but SSFAM confers better coverage. In theory, SSFAM does not cover preexisting health conditions (when membership is individual), but in practice it has not been easy for IMSS to limit access. Since there is high adverse selection in SSFAM, this insurance program is in deficit, and the IMSS has tried not to promote enrollment. In light of IMSS's financial problems, this agency is currently discussing the possibility of implementing a flexible premium policy (that is, removing this definition of the law) and even closing the SSFAM and transferring its beneficiary population to *Seguro Popular*.

By the end of 2010, *Seguro Popular* covered 43.5 million people and SSFAM covered 600,000 (table 6). The uninsured population had dropped to 9 million people (from 64.4 million in 2002), representing only 8 percent of the nation's population.

17. These are purchasing power parity (PPP)-adjusted dollars, as reported by Knaul et al. 2012.

Table 6 Mexico: Health Insurance Coverage, 2002 and 2010*(number of people and percent)*

	Social Security			Seguro Popular	Private insurance	Uninsured	Total
	Mandatory (IMSS+ISSSTE)	Voluntary (Family Health Insurance, SSF)	Subtotal				
Number of people (million)							
2002	38.7	n.a.	38.7	n.a.	1.8	64.4	104.9
2010	58.6	0.6	59.2	43.5	1.9	9.0	112.3
Percent							
2002	36.9	n.a.	36.9	n.a.	1.7	61.4	100.0
2010	52.2	0.5	52.7	38.7	1.7	8.0	100.0

Sources: Eduardo González.- Pier (personal communication) —2013; Instituto Nacional de Estadística y Geografía 2011; Knaul et al. 2012.

Note: n.a. = not applicable.

The absolute amount and the distribution of public financing changed with the reform and reduced the financing gap between those insured through social security and the rest of the population, which was insured through *Seguro Popular* or uninsured. In 2010, the resources available for those insured outside of the social security system had doubled in PPP dollars relative to 2004 (table 7). The per capita spending ratio within and outside of social security had dropped to 1.2, meaning that the value of services delivered through social security was only 20 percent greater than the volume delivered outside of it. This figure is in stark contrast with that registered in 2004, when social security services doubled in value compared to those received by citizens not covered by social security.

Table 7 Mexico: Per Capita Public Resources for Health Insurance, 2004 and 2009–10*(US\$ PPP)*

	(1) Social Security	(2) Non-Social Security	Gap = (1)/(2)
2004	209	102	2.0
2009–10	237	205	1.2

Source: Knaul et al. 2012.

Financing of SSPH comes from three sources: (1) a so-called *social quota* established by the federal government for each individual covered by *Seguro Popular*, equal to 3.92 percent of the minimum legal salary and updated yearly according to the consumer price index plus a so-called *solidary federal contribution* equal to 1.5 times the social quota; (2) a contribution made by state governments equal to one-half of the social quota; and (3) contributions made by the affiliates of *Seguro Popular*. The relative importance of the third financing source is very small. Between 2004 and 2011, it represented less than 1 percent of all SSPH financing, while sources (1) and (2) represented over 99 percent of it. Table 8 presents the sliding premium scale for *Seguro Popular*.

The impact of the SSPH reform has been the subject of multiple evaluations. An evaluation report that summarizes results from all published evaluations (Knaul et al. 2012) concludes that the available evidence indicates that *Seguro Popular* is improving access to health services and reducing the prevalence of catastrophic and impoverishing health expenditures, especially for the poor. Total health care spending in Mexico has increased from 5.1 percent of GDP in 2000 to 6.0 percent in 2004 to 6.3 percent in 2010. In addition, the disparity in per capita public health spending in the states has dropped as measured by the per-person public expenditure between those covered by social security agencies and those without social security. In 2000, the ratio was 6.1; it dropped to 2.1 in 2004 and to 1.2 in 2010.

Table 8 Mexico: Annual Family Contribution to Seguro Popular by income Decile, 2012 (US\$)

Income decile	Annual contribution per family (Pesos)	Annual contribution per family (US\$)
I (lowest)	0	0
II	0	0
III	0	0
IV	0	0
V	1,027	76.13
VI	2,834	210.08
VII	3,648	270.42
VIII	5,650	418.83
IX	7,519	557.38
X (highest)	11,379	843.51

Source: Eduardo González-Pier, personal communication, April 17, 2013.

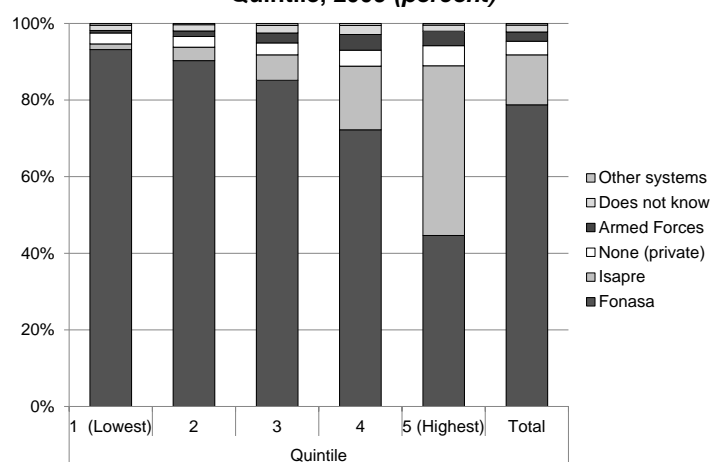
5.17. CHILE¹⁸

Chile relies on SHI to provide health coverage to its 17 million people. A 7 percent payroll contribution for health is mandatory for all formal sector employees and will be mandatory for all citizens starting in 2018.¹⁹

Most countries that have adopted the SHI model to achieve UHC took an incremental approach, first enrolling civil servants and formal sector workers, and later, informal workers and the poor. Chile, which reached nearly universal health coverage through SHI several decades ago in the mid-20th century, instead offered publicly subsidized coverage for the poor early in the evolution of SHI. In 2005, SHI coverage became explicit for all SHI insurers through the adoption of a nationwide, uniform health benefits package that currently covers prevention and treatment for 80 priority diseases.

Yet Chile's SHI system has long been criticized for having two separate subsystems: a large public insurer (Fonasa) that covers over three-fourths of the population, including indigent and low-and middle-income citizens, and provides

Figure 27 Chile: Health Insurance Coverage by Income Quintile, 2009 (percent)



Source: CASEN 2009 Household Survey.

18. Information in this section comes from the author, from personal communication with David Debrott (consultant at the National Statistical Institute) and from the cited references on Chile.

19. The contribution is capped at a monthly salary ceiling of US\$2,700. The maximum legal monthly contribution to Fonasa or an Isapre is therefore US\$140.

health services mostly through public providers (figure 27); and several for-profit private insurers (Isapres) that cover about one-sixth of the better-off population and provide services almost exclusively in the private sector. The remaining population is covered by the armed forces or other systems.

The law makes it possible for Isapres to engage in risk selection through denial of coverage. Fonasa, instead, does not reject applicants. It covers those that qualify as poor (called the “indigent”), through a sophisticated means test, and fully waives any premiums and copayments for them. It also covers nonindigent workers, who have to contribute 7 percent of their income (up to a ceiling) and who must make variable copayments in proportion to their income. As a result of Isapres’s risk selection, Fonasa has a beneficiary population that not only has lower incomes than that of Isapres but also one that is older and sicker.²⁰ One out of three Fonasa beneficiaries is the “indigent” and his or her family (also known as “Group A” beneficiaries), and two-thirds are contributing affiliates and their families (Groups B, C, and D).

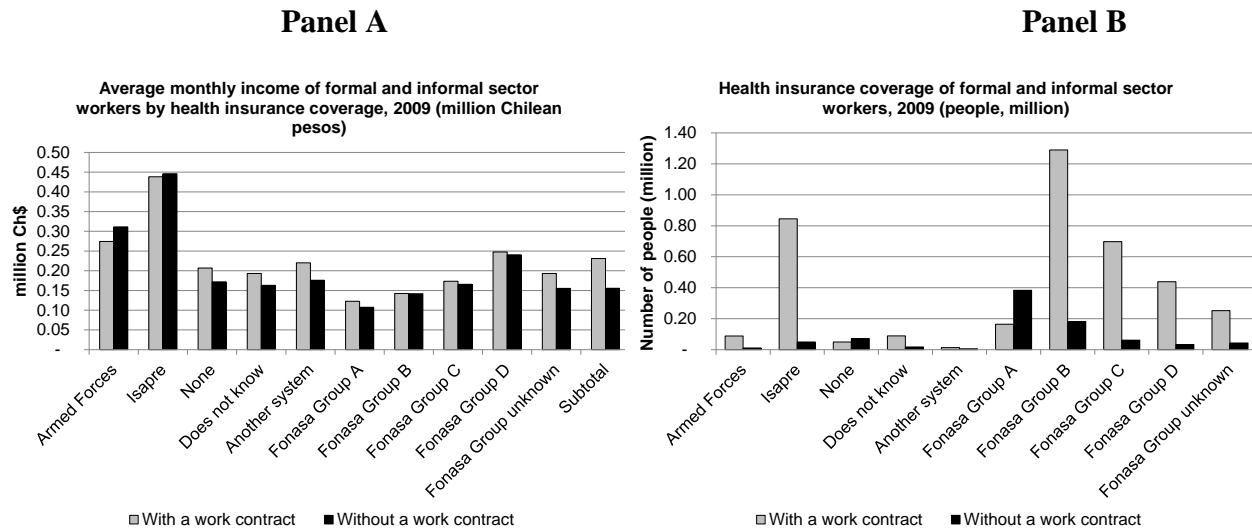
A study of work informality published in 2010 estimated informal employment using various data sources from 2003 to 2006 and found that it represented 36 percent of the labor force (Perticara and Celhay 2010). More recent estimates made by this author, based on the 2009 National Socioeconomic Characterization Survey (locally known as CASEN) indicate that informality may have fallen to about 20 percent, a finding that is consistent with Chile’s sustained economic growth of the last several years.

Data from the 2009 CASEN show that monthly household per capita income by informal sector workers equals Ch\$155,741 (US\$327) and is one-third lower than the per capita income for formal sector workers (panel A of figure 28). The majority of informally employed workers are insured through the public insurer, Fonasa (panel B of the figure), and about one-half of them qualify as indigent with Fonasa (Group A in the figure).²¹ Only a very small share of informal sector workers is uninsured (labeled “None” in panels A and B of figure 28). This share is similar to that of other citizens without health insurance.

20. The Isapre sector is currently in crisis because the Constitutional Tribunal and the Supreme Court have declared illegal the practice by which Isapres adjust its premiums over time based on beneficiaries’ age and gender. Reforms to overcome this problem are currently being discussed in the Congress.

21. Income figures include subsidy transfers that various government social programs made in cash to households.

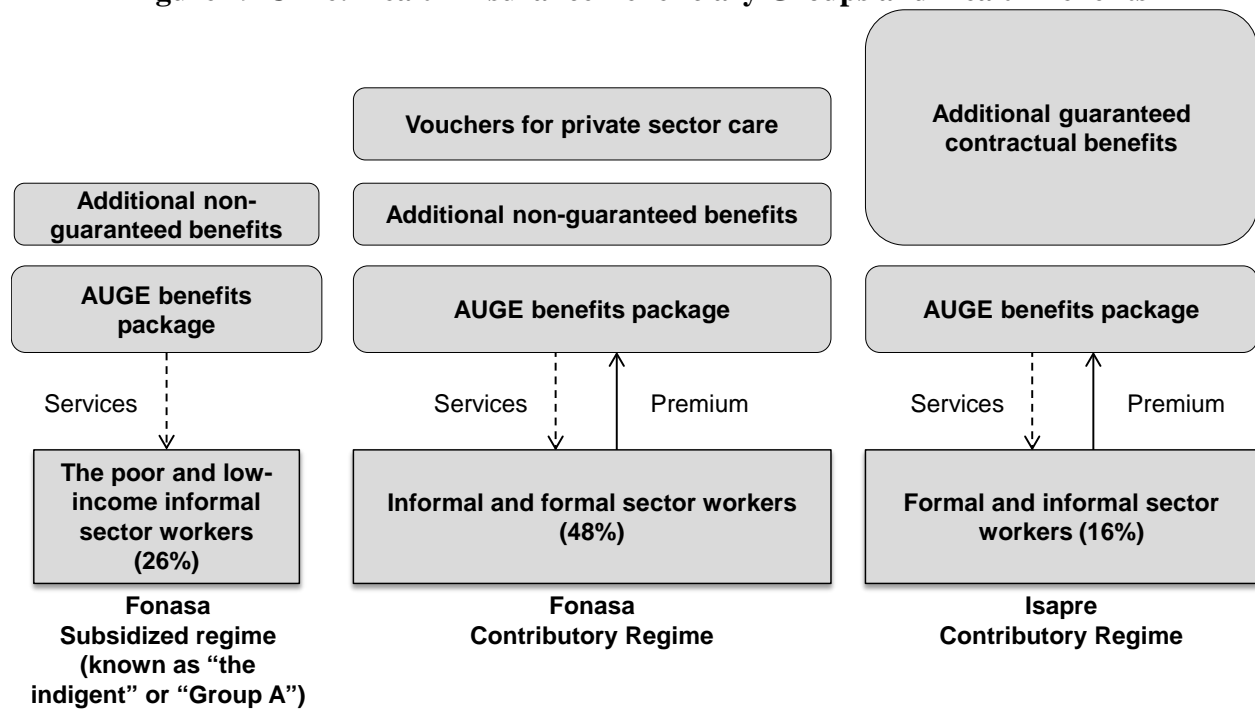
Figure 28 Chile: Informal Employment and Health Insurance Coverage, 2009



Source: Author from CASEN 2009.

As already mentioned, all SHI beneficiaries covered by Fonasa and Isapres have the right to the same minimum benefits package, with standardized coverage for 80 priority health problems (figure 29). In addition, all Fonasa beneficiaries can have access to additional health services with public providers, but their access is not guaranteed and is instead rationed through queues. Contributing beneficiaries of Fonasa (Groups B, C, and D) also benefit from a voucher provided by Fonasa that covers part of the cost of health care obtained from private health providers. This additional benefit of Fonasa, not available for Group A, is highly valued by beneficiaries and is a feature that confers incentives for individuals with an ability to make the 7 percent contribution to belong in groups other than Group A.

Figure 29 Chile: Health Insurance Beneficiary Groups and Health Benefits



Source: Author.

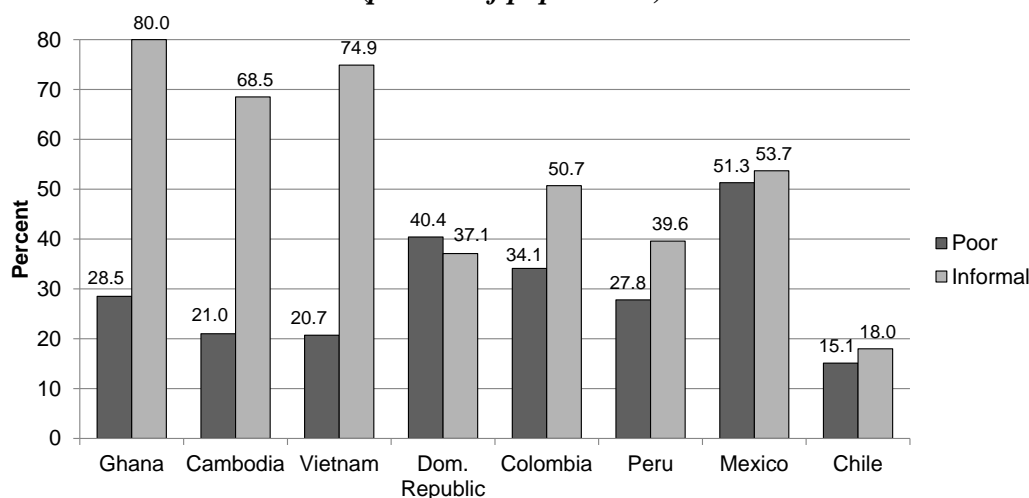
VI. CONCLUSIONS

Informal workers represent a sizable and in places majority share of the labor force in developing countries. Informal employment has been growing or is stagnant, except in Sub-Saharan Africa, where it is falling. While over the long term informality may shrink as economies expand, in the decade or two ahead, work informality will remain large.

Finding a solution to the problem of providing informal workers with health insurance is a major policy challenge that governments will have to tackle if they want to deliver on the promise of achieving UHC.

In developing countries, there appear to be more informal sector workers than there are people below the poverty line (International Labour Organization 2012). A comparison of these two indicators for the eight case study countries of this report supports this finding (). In the poorest case study countries of Ghana, Cambodia, and Vietnam, labor informality is between two and three times greater than poverty, implying that a sizable share of the population that is informal is not poor. Providing health insurance to them is a large problem because of the sheer size of the non-poor informal. Reluctance by these individuals to voluntarily enroll in health insurance and to make a contribution implies that significant public resources will be required to cover them with a benefits package that comprises quality health interventions and confers adequate financial protection.

Figure 30 Eight Case Study Countries: Poverty and Informality, around 2010
(percent of population)^a



Source: Calculated by the author using information on poverty from the World Bank DataBank, and information on informality from the sources cited in each of the case studies of section 5.

a. In a strict sense, poverty and informality figures are not directly comparable because poverty figures refer to the entire population, including children, while informality figures refer only to the working-age population. Yet in several countries, the differences between these two figures are large enough to make the comparisons in the text valid.

In the Latin American case study countries, the difference between the number of people in informality and poverty is smaller, particularly in Chile, the Dominican Republic, and Mexico. In the Dominican Republic, in particular, this explains the current proposals to cover the informal under the government-subsidized regime and to discard the creation of a separate regime for this group.

Yet generally, while the absolute number of people in poverty and informality may be similar and there is some overlap between them, these may be mostly different groups. Information from Chile

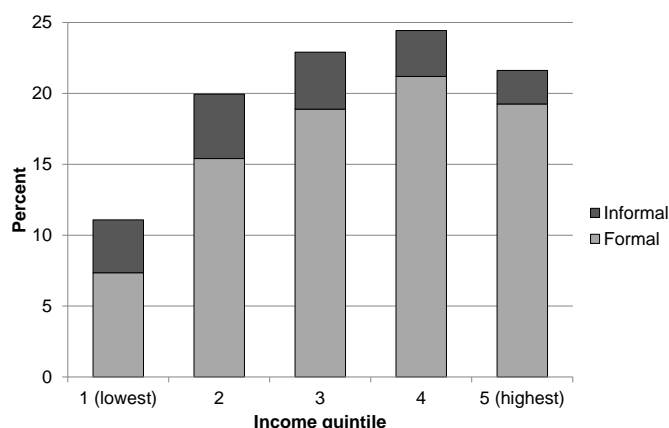
illustrates this distinction. Figure 31 shows that informal sector workers are rather evenly distributed across all five income quintiles. Quintile 1 more or less coincides with poverty in the country, which by recent account is 15 percent. Only about one out of three working persons below the poverty line is informal and two out of three are not. In Chile, most of the informal are nonpoor. Still, as was shown in this country's case study (figure 28), virtually all informal sector workers and their families belong to Fonasa, the large public insurer, and about half of them manage to get into Group A, reserved for the indigent. Thus, most of the indigent in this country end up receiving a large public subsidy to cover their health care costs through insurance.

This report has reviewed a vast set of country experiences in the provision of health insurance to the informal. It has shown that the problem has been addressed in a variety of circumstances and with multiple approaches. Still, some important findings, patterns, and lessons emerge. They are discussed below.

Countries that until recently were distant from UHC are rapidly moving in that direction. China is a prominent example, given the speed with which it has expanded population coverage and the government's resolve to spend public resources to provide coverage for the poor and the nonpoor informal, both in urban and rural areas. Ghana and Vietnam have also made great strides toward UHC. But in these countries, while there is evidence that greater insurance coverage has improved access to health services for the poor and the nonpoor informal, it has not yet improved financial protection for these target groups. In China and Vietnam, the reliance of government health systems on user-fee revenue, combined with inefficiency, waste, and perverse incentives conspire against the goal of improving financial protection. The mere injection of additional financing in countries such as these will not suffice to improve performance and to move closer to UHC. A broad set of reforms will also be required to strengthen the supply side to ensure that additional public financing does translate into improved coverage.

A recent comprehensive review of the literature on the impact of the Mexican reform commonly known as *Seguro Popular* has also come to the same conclusion. Mexico has made considerable progress toward UHC. For example, available financing for the population outside of social

Figure 31 Chile: Work Informality by income Quintile, 2009 (percent)



Source: Author from CASEN 2009.

security has increased in an important way in the last ten years: in 2004, the amount of health money spent outside of social security represented only half of that spent within social security; in contrast, around 2010, that proportion had fallen to 90 percent. Despite this and other important achievements, ten years into the Mexican reform, out-of-pocket health spending has stubbornly remained at around 50 percent. Knaul et al. concluded that “mobilizing additional funds to extend health insurance coverage is a necessary but not sufficient condition to expand access to comprehensive health care and decrease reliance on OOPS. Translation of additional financial resources into regular access to comprehensive, effective health services — the ultimate goals of effective universal coverage — is a formidable task. Until universal access includes a guaranteed, acceptable level of quality, the egalitarian exercise of the right to protection of health will remain an elusive goal and inefficient OOPS will grow” (Knaul et al. 2012).

Part of the little or lack of progress made by some countries in improving financial protection likely responds to limitations in the breadth of covered services or in the extent of financial coverage of services. For example, in Vietnam, out-of-pocket payments by informal sector workers with insurance are not capped, and public providers demand high informal payments. Improving financial protection there will probably involve dealing with the reasons that public providers charge user fees, and adopting measures to expand the insurer’s financial coverage. Chile’s experience in this respect, with the Regime of Explicit Health Guarantees (*Régimen de Garantías Explícitas en Salud*), AUGE reform, may be a relevant solution to examine. In that country, a broad benefits package has been legally defined as a set of disease-treatment pairs. To limit citizens’ OOPS, the law also offers a guarantee that caps OOPS at a proportion of monthly household income. In addition, a time limit has been built into the law for health conditions in the benefits package such that if the public insurer fails to respond to demand for covered services due to constraints in public supply, it is forced to purchase the services from a private provider to protect the beneficiary’s right to coverage and keep him or her from having to purchase needed health care out-of-pocket from private providers.

In Mexico, the Fund for Protection against Catastrophic Health Expenditures (FPCHE) covers costly and specialized health interventions. It began with coverage of four diseases in 2004 and was covering 57 interventions by 2011. It is likely that the further expansion of the breadth of this package will help lessen the financial burden of health care on the covered population. But other interventions may be required to improve the quality and timeliness of health care providers. Identifying these interventions and best practices to expand effective financial protection of coverage expansion efforts is an important policy research priority.

In some countries, enrollment by informal workers into health insurance schemes has been slow. That is the case in the Dominican Republic, Ghana, and Peru, and to some extent Vietnam. This phenomenon appears to have multiple causes. The existence of a Ministry of Health that continues to provide universal access to fully subsidized health services, however limited in quality and availability, constitutes implicit insurance on which uninsured informal citizens rely to obtain needed health services, particularly from hospitals. Limiting free access to government-subsidized health services for the nonpoor may be a way of inducing them to enroll in health insurance.

But doing so may be politically controversial and hard to achieve in the absence of effective mechanisms to identify the poor and the nonpoor. Strong means-testing procedures are required

for this, as is a political will, since such a measure may in some countries be deemed unconstitutional or unpopular, at best. Latin American countries such as Chile, Colombia, and Peru rely on means-testing procedures developed for social protection programs, in general, or for health protection, in particular. In Chile and Colombia, government hospitals require the beneficiary to produce a health insurance card, and those that do not have the card are subject to an on-site means test to determine if they are eligible for a partial or total exemption.

Many countries have sought to collect revenue from nonpoor informal workers in exchange for health insurance coverage. None of them has managed to collect a significant amount of resources, where significance refers to the share of the contribution relative to the costs of coverage. As noted, in Vietnam a premium subsidy as large as 70 percent is insufficient to induce all of the informal to obtain health insurance. In China, the subsidy appears to be much larger, and the government is increasing it further.

It is worth asking what the rationale is for charging an enrollment premium to informal sector workers. Several authors question the wisdom of charging small premiums not only because the revenue they bring in is small and the premium's existence may inhibit enrollment, but also because the administrative costs of collecting the premium may be comparable in magnitude to the revenue. In China, it has been argued that the role of the premium is in part to promote a sense of ownership and empowerment by the insured. But there may be another reason for the premium collection policy. Its existence may diminish the incentive for formal sector workers to leave formal employment and become informal. The evidence cited in this report supports this notion.

The adoption of differential benefits packages for different population groups may also be a rational policy design to avoid perverse incentives in the health insurance system. If all population groups — the poor, the nonpoor informal, and the nonpoor formal — receive exactly the same benefits package, this gives rise to incentives for the nonpoor to misrepresent their status and qualify as poor, or for the formal to leave formality and become informal. Thus, to avoid these perverse incentives, not only should contributions differ between these groups, but so should benefits packages.

The notion of offering different health insurance coverage to different population groups tends to be opposed by health policy makers, who believe that such a policy promotes inequality and inequity. However, offering a uniform benefits package for all, just like offering free enrollment for the poor and the nonpoor informal alike, may result in such large perverse behaviors that the aim of achieving UHC may become infeasible. The recent announcement by Colombia's president to equalize the benefits packages of the contributive and subsidized regimes will undoubtedly confer greater incentives for beneficiaries to misrepresent their socioeconomic status or to switch to informality to capture exactly the same coverage at no cost.

But in addition, the choice of benefits package for different population groups has fiscal implications. In most developing countries it is not fiscally possible for government to subsidize a vast, uniform benefits package for all, and it is not convenient to offer a modest package for the non-poor because they may be reluctant to enroll. China, the Dominican Republic, and Mexico are useful examples of countries that have by design made the decision to offer different levels of benefits to different population groups. With time, as fiscal resources and formality increase,

benefits may be progressively improved for the lower-income population. In contrast, Peru's decision to have a single, large benefits package for all citizens is beyond the financial abilities of its government and of the technical capabilities of the health care delivery system. Likewise, Colombia's decision to equalize the benefits package of the two regimes seems at odds with the country's failed efforts to do so for the last 20 years.

Community-based health insurance (CBHI) has been promoted by governments and the international community on the grounds that it is a mechanism that can improve accessibility to needed services and financial protection for poor people, particularly in rural areas of low-income countries. The evidence available suggests that CBHI is a step forward and advances these objectives. However, with the exceptions of Ghana and Rwanda, most poor countries where CBHI has developed have been able to cover a small share of the population, and since most initiatives have been isolated and spontaneous, the scaling up of CBHI has not occurred at a rapid pace. Further, while poor populations have been shown to have a willingness to pay a premium for CBHI, outside financial resources have been required for most of these schemes. Also, the majority of these schemes promote voluntary enrollment and are therefore subject to considerable adverse selection. Finally, because of their generally small beneficiary populations, CBHI schemes fail to reach the minimum size required to achieve effective risk pooling, hence the need for reinsurance promoted by Dror and Jacquier (2001) and Dror (2001). In sum, this author does not view CBHI as an effective way of achieving UHC except where governments actively promote the rapid scaling up of CBHI by making the appropriate financial allowances to subsidize these schemes from general revenue resources at the national level and by adopting a regulatory framework for health insurance.

This last point has been promoted by several authors who have studied health insurance initiatives in poor countries, including Bennett, Creese, and Monasch (1998). While government promotion of basic functions and rules for local health insurance initiatives is desirable from a policy perspective, if initiatives are left unregulated, government intervention in this domain can result in problems too. This is clearly illustrated in the case of the government of India's regulatory framework for health insurance, which Dror (2007) suggested was seemingly faulty.

India is a country where CBHI has thrived, providing many communities with a needed mechanism to improve access to health care by lessening the financial burden on the patient's family. Offering technical and financial support to these schemes should remain an important priority for the development community. But the sudden development of a new scheme, the GSHISs, seems to offer a prospect for faster and possibly more effective escalation toward UHC. These new, larger insurers cover the poor only, and that may include a significant share of informal sector workers.

While GSHISs are not devoid of problems and therefore are not a panacea in India, they signal a shift in the policy paradigm in the world's second largest country, by systematically channeling public funding to large, organized risk pools that purchase health services on behalf of their beneficiaries. It remains to be seen how GSHISs will evolve and what their performance will be. Also, their total dependence on government financing leaves them vulnerable to the fluctuations of government revenue along economic cycles. Still, if these initiatives continue to expand and to show positive results, they may become India's way of moving toward UHC and constitute an example for neighboring countries to emulate.

Finally, the majority of country cases presented in this report are relying on SHI as the chief mechanism for offering public insurance for the informal sector. This emphasis does not reflect the author's preference but rather the available literature. Some developing countries have abandoned the SHI approach and moved to a tax-financed national health system. Thailand and Brazil may be the most noteworthy examples.

Levy (2008) criticized Mexico's existing social security system for formal workers and advocated eliminating wage-based social security contributions and raising consumption taxes on higher-income households to simultaneously increase the rate of growth of GDP, reduce inequality, and improve benefits for workers. His prescription is at odds with the current direction of the reform but has valid implications for Mexico and other developing countries that rely on SHI as well. Colombia may be moving to a reformed system that relies more on tax-financed health care and less on SHI contributions. India's GSHISs also rely on tax financing.

Thus, in thinking about ways of providing health insurance to informal sector workers, who represent a large fraction of the workforce or the bulk of it in developing countries, both SHI and tax-financed systems should be considered as valid options, as well as a switch from SHI to general tax financing where warranted.

REFERENCES

- Acharya, Arnab, Sukumar Vellakkal, Fiona Taylor, Edoardo Masset, Ambika Satija, Margaret Burke, and Shah Ebrahim. 2013. "The Impact of Health Insurance Schemes for the Informal Sector in Low- and Middle-Income Countries. A Systematic Review." In *Policy Research Working Paper 6324*. Washington, DC: World Bank. Development Economics Vice Presidency. Partnerships, Capacity Building Unit..
- Agyepong, Irene. January 22, 2013. Personal Communication. School of Public Health, Ghana, Accra.
- Albrecht, James, Lucas Navarro, and Susan Vroman. 2009. "The Effects of Labour Market Policies in an Economy with an Informal Sector." *The Economic Journal* 119 (539) (July): 1105–29.
- Annear, Peter Leslie, and Shakil Ahmed. 2012. "Institutional and Operational Barriers to Strengthening Universal Coverage in Cambodia: Options for Policy Development." In *Working Paper Series*, The Nossal Institute for Global Health.
- Aterido, Reyes, Mary Hallward-Driemeier, and Carmen Pagés. 2011. "Does Expanding Health Insurance Beyond Formal-Sector Workers Encourage Informality?" In *Policy Research Working Paper 5785*. The World Bank, Development Research Group. Financial and Private Sector Development Network and Inter-American Development Bank. August, 2011
- Avila, Adriana. 22 January 2013. Personal Communication. Bogotá.
- Awittor, Evelyn. 22 January 2013. Personal Communication. World Bank, Ghana, Accra.
- Bargain, Olivier, and Prudence Kwenda. 2009. "The Informal Sector Wage Gap: New Evidence Using Quantile Estimations on Panel Data." Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor.
- Bennett, Sara, Andrew Creese, and Roeland Monasch. 1998. "Health Insurance Schemes for People Outside Formal Sector Employment." In *ARA Paper*. Geneva: World Health Organization, Division of Analysis, Research and Assessment.
- Bitrán, Ricardo. 2005. "Health Insurance Issues in East Asia." Washington, DC: World Bank.
- . 2012a. "Explicit Health Guarantees for Chileans: The Auge Benefits Package." In *Universal Health Coverage*. Universal Health Coverage Studies Series (UNICO) No. 21. Human Development Network. January 2011. World Bank.
- . 2012b. "Universal Health Coverage Reforms. Patterns of Income, Spending and Coverage in Four Developing Countries." In *Working Papers*. Washington, DC: Results for Development Institute.
- Bitrán, Ricardo, and Ursula Giedion. 2003. "Waivers and Exemptions for Health Services in Developing Countries." *Social Protection Discussion Paper Series 308*, Social Protection Unit, Human Development Network. World Bank.
- Bitrán y Asociados, and Econometría. 2001. "Proyecto Evaluación Y Reestructuración De Los Procesos, Estrategias Y Organismos Públicos Y Privados Encargados De Adelantar Las

- Funciones De Vigilancia Y Control Del Sistema De Salud. Informe Final. Capítulos 5 Y 6." Colombia Ministry of Health, Bogotá.
- Bosch, M., et al. 2007. The Determinants of Rising Informality in Brazil: Evidence from Gross Worker Flows. IZA Discussion Paper Series. Bonn, Germany, IZA.
- Camacho, Adriana, Emily Conover, and Alejandro Hoyos. 2009. "Effects of Colombia's Social Protection System on Workers' Choice between Formal and Informal Employment." In *Documentos CEDE*. Bogotá: Universidad de los Andes, Facultad de Economía.
- CASEN (Socioeconomic Characterization Survey). 2009. Socioeconomic Characterization Survey. For more information see http://observatorio.ministeriodesarrollosocial.gob.cl/casen/casen_obj.php Centro de Estudios Sociales y Demográficos and Macro International Inc. 2007. "Encuesta Demográfica Y De Salud República Dominicana 2007."
- Charmes, Jacques. 2012. "The Informal Economy Worldwide: Trends and Characteristics." *Margin: The Journal of Applied Economic Research* 6 (2): 103–32.
- Cobham, Alex. 2005. "Tax Evasion, Tax Avoidance and Development Finance." In *QEH Working Paper Series No 129*. Finance and Trade Policy Research Centre. Queen Elizabeth House. University of Oxford. *QEH Working Paper Series – QEHWPS129*
- Conep (Consejo Nacional de la Empresa Privada). 2008. "Informe Conep 2008." Consejo Nacional de la Empresa Privada, Santo Domingo. For more information see <http://www.perspectivaciudadana.com/contenido.php?itemid=24061>
- Cotlear, Daniel. 2012. *Unico – The Universal Coverage Challenge Program*. Human Development Network, World Bank, Washington, DC.
- Dabla-Norris, Era, Mark Gradstein, and Gabriela Inchauste. 2008. "What Causes Firms to Hide Output? The Determinants of Informality." *Journal of Development Economics* 85 (1–2): 1–27.
- DANE. 2013. "Medición Del Empleo Informal Y Seguridad Social Trimestre Móvil Noviembre 2012–Enero." DANE, Bogotá.
- Debrott, David. 23 January 2013. Personal Communication. Santiago.
- Devadasan, N., Kent Ranson, Wim Van Damme, and Bart Criel. 2004. "Community Health Insurance in India. An Overview." *Economic and Political Weekly* (July 10).
- Dror, David. 2001. "Reinsurance of Health Insurance for the Informal Sector." *Bulletin of the World Health Organization* 79: 672-678. Page 673-674. For more information see [http://www.who.int/bulletin/archives/79\(7\)672.pdf](http://www.who.int/bulletin/archives/79(7)672.pdf)
- Dror, David. 2007. "Micro Health Insurance in India. Pointers for Progress." *IRDA Journal* no. 5 (12).
- . 2007. "Micro Health Insurance in India. Pointers for Progress." *IRDA Journal*. Volumen 5, N0 12, 2007.
- Dror, David, and Christian Jacquier. 2001. "Micro-Insurance: Extending Health Insurance to the Excluded." International Labour Organization, Geneva.

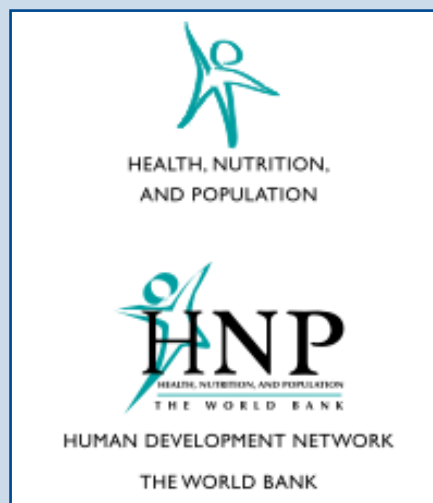
- Dror, D. M., R. Radermacher, and R. Koren. 2007. "Willingness to Pay for Health Insurance among Rural and Poor Persons: Field Evidence from Seven Micro Health Insurance Units in India." *Health Policy* 82 (1) (June): 12–27.
- Ekman, Bjorn. 2004. "Community-based Health Insurance in Low-income Countries: A Systematic Review of the Evidence." *Health Policy and Planning* no. 19 (5):249-270. doi: 10.1093/heapol/czh031.
- Ensor, Tim. 1999. "Developing Health Insurance in Transitional - Asia." *Social Science and Medicine* 48: 871–79.
- Ensor, T. (1999). "Developing Health Insurance in Transitional Asia." *Social Science and Medicine* 48: 871-879.
- Estevão, M. and I. D. Carvalho-Filho. 2012. Institutions, Informality, and Wage Flexibility: Evidence from Brazil. IMF Working Paper. Washington, DC, International Monetary Fund.
- Evans, David B., Robert Marten and, Carissa Etienne. 2012. "Universal Health Coverage is a Development Issue." *The Lancet*, Volume 380, Issue 9845, Pages 864 - 865, 8 September 2012. This article can be found in the following collection: Global Health Copyright © 2012 Elsevier.
- Fifteenth International Conference of Labour Statisticians. 1993. "Resolution Concerning Statistics of Employment in the Informal Sector, Adopted by the Fifteenth International Conference of Labour Statisticians." Geneva. For more information see <http://www.ilo.org/public/english/bureau/stat/download/res/infsec.pdf>
- Frenk, Julio, and Juan Luis Londoño. 1997. "Structured Pluralism: Towards an Innovative Model for Health System Reform in Latin America." *Health Policy* 41 (1): 1–36.
- Frenck, Julio, and David de Ferrari. 2012. Universal Health Coverage: Good Health, Good Economics. *The Lancet*, Volume 380, Issue 9845, Pages 862 - 864, 8 September 2012. This article can be found in the following collection: Global Health Copyright © 2012 Elsevier Ltd..
- Gamero-Requena, Julio, and Gabriela Carrasco. Circa 2012. "Trabajo Informal Y Políticas De Protección Social." PROYECTO WIEGO-CIES PERU, Lima.
- Gertler, Paul. 1998. "On the Road to Social Health Insurance: The Asian Experience." *World Development* 26: 717–32.
- Giedion, Ursula, Beatriz Y. Díaz, Eduardo A. Alfonso, and William B. Savedoff. 2009. "The Impact of Subsidized Health Insurance on Health Status and on Access to and Use of Health Services." In *Few to Many: Ten Years of Health Insurance Expansion in Colombia*, edited by María-Luisa Escobar, Amanda L. Glassman, Antonio Giuffrida, and Ursula Giedion. Washington, DC: Inter-American Development Bank and The Brookings Institution.
- González- Pier, Eduardo. April 10, 2013. Personal Communication. Mexico City.
- Government of Brazil. 2013. "Taxes and Social Contributions in Brazil." http://www.brasil.gov.br/para/invest/taxes/social-contributions/br_model1?set_language=en.

- GTZ, Sector Programme Public Finance-Administrative Reform. 2010. "Addressing Tax Evasion and Tax Avoidance in Developing Countries." Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, Eschborn.
- Gumber, Anil. 2002. "Health Insurance for the Informal Sector: Problems and Prospects." In *Working Paper No. 90*. Indian Council For Research On International Economic Relations, New Delhi.
- Gumber, Anil, and Veena Kulkarni. 2000. "Health Insurance for Informal Sector. Case study of Gujarat " *Economic and Political Weekly*.
- Health Insurance System Research Office. 2012. Thailand's Universal Coverage Scheme: Achievements and Challenges. An independent assessment of the first 10 years (2001-2010). Synthesis Report. Nonthaburi, Thailand, Health Insurance System Research Office.
- Instituto Mexicano del Seguro Social. 2012. "Informe Al Ejecutivo Federal Y Al Congreso De La Unión Sobre La Situación Financiera Y Los Riesgos Del Instituto Mexicano Del Seguro Social 2011–2012." Mexico City.
- Instituto Nacional de Estadística y Geografía. 2011. *México De Un Vistazo*. Mexico City: INEGI.
- International Labour Organization. 2002. "Decent Work and the Informal Economy." In *International Labour Conference – 90th Session 200*, Geneva.
- . 2007. Informal Economy, Poverty, Employment in Cambodia Mongolia and Thailand. Good Practices and Lessons Learned: Final Report. International Labour Organization.
- . 2008. "Social Health Protection. An ILO Strategy Towards Universal Access to Health Care." Geneva: International Labour Organization.
- . 2011. "Statistical Update on Employment in the Informal Economy." Geneva: Department of Statistics.
- . 2012. "Statistical Update on Employment in the Informal Economy." Department of Statistics.
- . No date. "Measuring Informality: A Statistical Manual on the Informal Sector and Informal Employment." International Labour Organization.
- . 2013. "Informal Economy in Indonesia." Retrieved July 24, 2013, from <http://www.ilo.org/jakarta/areasofwork/informal-economy/lang--en/index.htm>.
- Jeong, Hyoungh-Sun. 2010. "Expanding Insurance Coverage to Informal Sector Populations: Experience from Republic of Korea." In *World Health Report. Background Paper 38*. 2010. Geneva. For more information see <http://www.who.int/healthsystems/topics/financing/healthreport/RepKoreaNo38Final.pdf>
- Judith Rodin a, David de Ferranti. 2012. "Universal Health Coverage: The Third Global Health Transition." *The Lancet*, Volume 380, Issue 9845, Pages 861 - 862, 8 September. This article can be found in the following collection: Global Health Copyright © 2012 Elsevier Ltd
- Knaul, Felicia Marie, Eduardo González-Pier, Octavio Gómez-Dantés, David García-Junco, Héctor Arreola-Ornelas, Mariana Barraza-Lloréns, Rosa Sandoval, et al. 2012. "The

- Quest for Universal Health Coverage: Achieving Social Protection for All in Mexico." *The Lancet* 380 (9849): 1259–79.
- La Forgia, Gerard, and Somil Nagpal. 2012. Government Sponsored Health Insurance India: Are You Covered? Directions in Development. Human Development. Vol. 72238, Washington DC: World Bank.
- Laurel Hatt, Rebecca Thornton, Barbara Magnoni, and Musaleena Islam. 2009. "Extending Social Insurance to Informal Sector Workers in Nicaragua Via Microfinance Institutions: Results from a Randomized Evaluation." PSP-One Project, Bethesda, MD: Private Sector Partnerships-One project, Abt Associates Inc. For more information see http://pdf.usaid.gov/pdf_docs/PDACP309.pdf
- Levy, Santiago. 2008. *Good Intentions, Bad Outcomes: Social Policy, Informality, and Economic Growth in Mexico*. Washington, DC: The Brookings Institution Press.
- Loayza, Norman V. 1996. "The Economics of the Informal Sector: A Simple Model and Some Empirical Evidence from Latin America." *Carnegie-Rochester Conference Series on Public Policy* 45: 129–62.
- Lu, Chunling, Brian Chin, Jiwon Lee Lewandowski, Paulin Basinga, Lisa R. Hirschhorn, Kenneth Hill, Megan Murray, and Agnes Binagwaho. 2012. "Towards Universal Health Coverage: An Evaluation of Rwanda Mutuelles in Its First Eight Years." *PLoS ONE* 7 (6): page 1. For more information see <http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0039282&representation=PDF> PLoS ONE 7(6): e39282. doi:10.1371/journal.pone.0039282
- Makinen, Marty, Stephanie Sealy, Ricardo A. Bitrán, Sam Adjei, and Rodrigo Muñoz. 2011. "Private Health Sector Assessment in Ghana." In *World Bank Working Paper*. Washington, DC: World Bank and International Finance Corporation.
- Meibner, Matthias. 2011. "Informal Sector and Informal Employment in Vietnam – A Chance for Corporate Social Responsibility?" Institute of Labour Science and Social Affairs (ILSSA), Vietnam, for more information see http://www.humanrights-business.org/files/ppp_matthias_meissner.pdf
- Montañez, Vilma. 22 January 2013. Personal Communication. Lima.
- Mukti, G. 2013. Indonesia: Achieving Universal Health Coverage through "Big Bang" Reforms. Breakthroughs and Remaining Challenges. Unpublished manuscript. Jakarta.
- Nguyen, H. T., Y. Rajkotia, and H. Wang. 2011. "The Financial Protection Effect of Ghana National Health Insurance Scheme: Evidence from a Study in Two Rural Districts." *Int J Equity Health* 10: 4. Page 9-10. For more information see <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3031235/pdf/1475-9276-10-4.pdf>
- Osei-Boateng, Clara, and Edward Ampratwum. 2011. "The Informal Sector in Ghana." Accra: Friedrich Ebert Stiftung.
- Paim, J., et al. (2011). "The Brazilian Health System: History, Advances, and Challenges." *The Lancet* 377(9779): 1778-1797.

- Perry, Guillermo E., William F. Maloney, Omar S. Arias, Pablo Fajnzylber, Andrew D. Mason, and Jaime Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. Washington DC: World Bank.
- Perticara, Marcela, and Pablo Celhay. 2010. "Informalidad Laboral Y Políticas Públicas En Chile." Universidad Alberto Hurtado, Santiago.
- Petrera, Margarita. 2008. "Cuentas Nacionales De Salud Perú, 1995–2005." Ministerio de Salud, Lima.
- PhilHealth (Philippine Health Insurance Corporation). 2006. "Conference on Extending Health Insurance to Informal Economy Workers. Synthesis Report." Manila.
- Prieto, Lorena, Camilo Cid, and Vilma Montañéz. 2012. "Estudio De Caso De Perú: Plan Esencial De Aseguramiento En Salud (PEAS) (Draft)." In *Planes de beneficios en salud. Diseño, implementación y ajuste*. Washington, DC: Inter-American Development Bank.
- Rathe, Magdalena. 2010. "Dominican Republic: Can Universal Coverage Be Achieved?" *World Health Report (2010) Background Paper, 10*. Geneva: World Health Organization.
- Rathe, Magdalena. 22 January 2013. Personal Communication. Santi Domingo.
- Saltman, R. B., et al. 2004. *Social Health Insurance Systems in Western Europe, European Observatory on Health Systems and Policies Series*. Open University Press. Berkshire.
- Saleh, Karima. 2013. The Health Sector in Ghana: A Comprehensive Assessment. Directions in Development, *Human Development*. Washington, DC: World Bank.
- Sao, Chhorn. 24 January 2013. Personal Communication. Phnom Penh.
- Schieber, George, Cheryl Cashin, Karima Saleh, and Rouselle Lavado. 2012. Health Financing in Ghana. Directions in Development, *Human Development*, Vol. 71894. World Bank, Washington, DC.
- Shaw, R. Paul, and Martha Ainsworth (eds.). 1996. "Financing Health Services through User Fees and Insurance: Case Studies from Sub-Saharan Africa." *World Bank Discussion Paper No 294*. January 1996. Washington, DC: World Bank.
- Somanathan, A., et al. 2012. Integrating the Poor into Universal Health Coverage in Vietnam. UNICO Studies Series. Washington, D.C., The World Bank.
- Soors, Werner, Narayanan Devadasan, Varatharajan Durairaj, and Bart Criel. 2010. Community Health Insurance and Universal Coverage: Multiple Paths, Many Rivers to Cross. World Health Report 2010 Background Paper 48.
- Sulzbach, Sara. 2008. "Evaluating the Impact of National Health Insurance in Ghana." Health Systems 20/20, Abt Associates Inc., Bethesda, MD.
- Thornton, Rebecca, Laurel Hatt, Barbara Magnoni, and Musaleena Islam. 2009. "Extending Social Insurance to Informal Sector Workers in Nicaragua Via Microfinance Institutions: Results from a Randomized Evaluation." PSP-One Project. Bethesda, MD: Private Sector Partnerships-One project, Abt Associates Inc.

- Tien, Tran Van. 2012. *Case Study – Social Health Insurance Vietnam, Flagship Course for High Level Decision Makers in Vietnam*. Ministry of Health of Vietnam and World Bank Institute.
- Tran Van Tien. 22 January 2013. Personal Communication. Hanoi.
- Ulyssea, Gabriel. 2010. "Regulation of Entry, Labor Market Institutions and the Informal Sector." *Journal of Development Economics* 91 (1): 87–99.
- Wagstaff, Adam, and Wanwiphang Manachotphong. 2012. " Universal Health Care and Informal Labor Markets. The Case of Thailand." *Policy Research Working Paper 6116*. World Bank, Washington, DC:
- Wagstaff, Adam, Magnus Lindelow, Shiyong Wang, and Shuo Zhang. 2009. "Reforming China's Rural Health System." World Bank, Washington, DC.
- Wagstaff, A. (2007). "Social Health Insurance Reexamined." World Bank *Policy Research Working Paper*. WPS 4111. The World Bank. Washington, DC.
- Wahab, Hassan. 2008. "Assessing the Implementation of Ghana's Nhis Law.Pdf." Paper Prepared for Workshop in Political Theory and Policy Analysis Mini-Conference, Spring.
- World Bank. 2012. *Health Insurance India Are You Covered? Directions in Development*. Human Development Vol. 72238. Washington, DC: World Bank.
- . 2013. "Cambodia Data." World Bank DataBank, Washington, DC.
- World Health Organization. 2010. *World Health Report - Health Systems Financing. The Path to Universal Coverage*. Geneva: World Health Organization.
- Yip, Winnie Chi-Man, William C Hsiao, Wen Chen, Shanlian Hu, Jin Ma, and Alan Maynard. 2012. "Early Appraisal of China's Huge and Complex Health-Care Reforms." *The Lancet* 379.



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