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EXPANDING COVERAGE TO INFORMAL WORKERS: A STUDY OF EPCMD COUNTRIES' EFFORTS TO DATE



January 2017

This publication was produced for review by the United States Agency for International Development. It was prepared by Sharon Nakhimovsky, Onaopemipo Abiodun, Adam Koon, and Altea Cico for the Health Finance and Governance Project.

The Health Finance and Governance Project

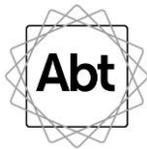
USAID's Health Finance and Governance (HFG) project helps to improve health in developing countries by expanding people's access to health care. Led by Abt Associates, the project team works with partner countries to increase their domestic resources for health, manages those precious resources more effectively, and makes wise purchasing decisions. As a result, this five-year, \$209 million global project increases the use of both primary and priority health services, including HIV/AIDS, tuberculosis, malaria, and reproductive health services. Designed to fundamentally strengthen health systems, HFG supports countries as they navigate the economic transitions needed to achieve universal health care.

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

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ACRONYMS

CBHI	Community-based health insurance
CHF	Community Health Fund
EPCMD	Ending preventable child and maternal deaths
GDP	Gross domestic product
HFG	Health Finance and Governance project
ILO	International labor organization
JKN	Jaminan Kesehatan Nasional
LMICs	Low- and middle-income countries
MOH	Ministry of Health
NHIA	National Health Insurance Authority
NHIS	National Health Insurance Scheme
NGO	Non-governmental organization
RCSHIP	Rural Community Social Health Insurance Programs
RSBY	Rashtriya Swasthya Bima Yojna
SEWA	Self-Employed Women's Association
SHI	Social health insurance
SSK	Shasthyo Shurokhsha Karmasuchi
UHC	Universal health coverage
USAID	United States Agency for International Development
WIEGO	Women in Informal Employment: Globalizing and Organizing



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EXECUTIVE SUMMARY

Introduction

For many low- and middle-income countries (LMICs), expanding health coverage to informal workers is one of the most common, yet complex challenges requiring action. Informal workers are, by definition, not provided with legal or social protections through their employment, and are vulnerable to health and economic shocks. They also account for a large percentage of the population in LMICs. Expanding or deepening health coverage to informal workers is thus an area of interest for stakeholders pursuing universal health coverage (UHC): the goal that the entire population can access needed good-quality care without risk of impoverishment. Pro-poor coverage schemes that rely on prepayment – payment delinked from the time of care seeking – are a key financing strategy for UHC (WHO 2010). However, including informal workers in such schemes is challenging given that informal workers are not typically registered in taxation systems and social protection systems, nor covered by labor laws and regulations, making them less visible to the government and other stakeholders (Rockefeller Foundation 2013).

Objectives

This report complements existing literature on how health reforms can improve the welfare of informal workers, focusing on the 25 countries prioritized for development assistance by the United States Agency for International Development (USAID) as part of its Ending Preventable Child and Maternal Deaths (EPCMD) initiative. Given the strong interest in these questions among EPCMD countries, USAID commissioned the Health Finance and Governance project (HFG) to conduct this research and provide recommendations relevant to UHC policy discussions in these countries.¹

Methods

Review of seminal documents on expanding health coverage to informal workers

HFG identified several documents published between 2013 and 2016 that comprehensively reviewed the literature on expanding health coverage to informal workers (Cotlear et al. 2015, Bitran 2014, Bonfert et al. 2015, Rockefeller Foundation 2013, Kutzin et al. 2016, Pages et al 2014). HFG prepared a synthesis of the findings and key messages from a set of these seminal documents that captures much of the work on expanding health coverage to informal workers to date.

Descriptive analysis of informal employment in EPCMD countries

HFG compiled data on the size and characteristics of informal employment in EPCMD countries. The team computed standardized estimates of the labor force participation rate, the percentage of the labor force in agricultural employment, and the percentage of the non-agricultural labor force in informal employment for EPCMD countries.

¹ HFG is a USAID-funded project (2012-2017) that collaborates with partners in LMICs to increase domestic resources for health, manage those precious resources more effectively, and make wise purchasing decisions (<https://www.hfgproject.org/>).

Qualitative analysis of sample EPCMD countries

HFG conducted key informant interviews to identify the main approaches governments in EPCMD countries have taken to expand coverage to informal workers, and understand the implementation challenges these governments have faced and how they have responded to them. Of the 25 EPCMD countries, HFG selected a convenience sample of 10 countries² based on where existing in-country connections could help identify key informants. After receiving Institutional Review Board exemption, HFG conducted 25 remote telephone interviews and nine in-person interviews with key informants. Informants included current and former government health insurance agency officials, Ministry of Health (MOH) officials, non-MOH government officials, representatives of local and international non-governmental organizations, implementing partners, and donor representatives. Recorded interviews were transcribed, coded, and analyzed using NVivo qualitative analysis software. Researchers then used deductive methods to identify themes across interviews and countries.

Findings

Themes from seminal documents on expanding coverage to informal workers

According to the literature, at the turn of the 21st century, many LMICs inherited health systems fragmented on the basis of socio-economic and employment status, with inequitable health coverage and outcomes and with insufficient coverage for informal workers. LMICs seeking to expand health coverage to informal worker have employed a range of approaches that have included supply-side budgetary transfers to providers and demand-side financing approaches that directly links subsidies to services received by beneficiaries (Gupta et al. 2010). One factor that varies across demand-side financing approaches is whether individuals are entitled to benefits based on the contributions they pay, or based on some other characteristic such as socio-economic status (OECD 2011 in Kutzin et al. 2016). Most demand-side financing schemes in LMICs are fully subsidized for the poor, while some are contributory for the non-poor. Those demand-side financing schemes that are voluntary, or mandatory but lacking sufficient enforcement, also face challenges implementing beneficiary identification, enrollment, and collection of contributions. Budget-based approaches avoid many of these challenges, but also may miss opportunities to improve the efficiency, effectiveness, and fairness of health spending.

The broad consensus in the literature is that *mandatory schemes* supported by *general government revenue* can over the long term help LMIC governments progress towards UHC. Greater reliance on general government revenue, rather than beneficiary contributions (premiums or payroll taxes), can promote UHC because it delinks receipt of benefits from contributions paid. It also allows countries to follow a “pro-poor” pathway to UHC, which requires that governments raise revenue from the non-poor on the one hand and subsidize the poor on the other (Cotlear et al. 2015). The recommendation that schemes enforce mandatory enrollment reflects the large body of literature documenting challenges, such as adverse selection and low enrollment, which voluntary programs struggle to overcome. However, because mandatory schemes can be difficult to implement, governments may turn to voluntary options as a political stopgap, providing coverage options to informal workers before systems that can operate schemes with better designs are established (Cotlear 2015, Bonfert et al. 2015). Ultimately, extensive tax system reform may be necessary for many governments, and in some cases fiscal space may be insufficient to achieve universal coverage for many years.

² Bangladesh, Ethiopia, Ghana, India, Indonesia, Mozambique, Nigeria, Senegal, Tanzania, and Uganda.

Characteristics of informal employment in EPCMD countries

With informal employment constituting more than 70 percent of the labor force in the 16 EPCMD countries with complete data, EPCMD countries as a group have a high percentage of employment that is informal, relative to other LMICs and to high-income countries. Specifically, data indicate that non-agricultural workers account for a smaller percentage of non-agricultural employment in EPCMD countries than in other LMICs. Also, in about half of EPCMD countries, agricultural workers account for more than half of the labor force. The share of agricultural to non-agricultural informal employment varies inversely with gross domestic product (GDP) per capita among EPCMD countries, likely reflecting the fact that countries tend to urbanize as they develop.

Globally, many but not all informal workers are living in poverty (Rockefeller Foundation 2013). Even those who are above the poverty line likely face heightened risk of economic and health shocks. Women in informal employment often lack the flexibility to seek maternal health care and may face “bodily harm and psychological and sexual abuse” at work (Rockefeller Foundation 2013). More data are needed in EPCMD countries to demonstrate the breakdown of informal workers by socio-economic group.

Findings from qualitative analysis

Key informants indicated that informal workers comprise a large and heterogeneous group that EPCMD governments do not always choose to target them specifically for expansion of coverage. Instead, some policymakers designing health reform choose to target only specific categories of informal workers, or do not group the population by employment status. In some cases, the impetus for designing schemes that target informal workers may come from non-governmental or external stakeholders.

HFG also surveyed the approaches used in sample EPCMD countries to extending health coverage. In many of these countries, government-driven, demand-side financial protection schemes provide coverage to informal workers in theory, but their enrollment remains low. In Indonesia, for example, as of April 2015 100 million non-poor informal workers, or 40 percent of the population, lacked health insurance coverage (Hatt et al. 2015). Similarly, RSBY in India targets but has only enrolled 28 percent of households living below the national poverty line, including informal workers’ households (Dror 2012).

According to key informants, as EPCMD country governments implement these approaches, they are facing and addressing numerous challenges. Low enrollment rates among non-poor workers and adverse selection are limiting the sustainability of the schemes. In response, governments are implementing strategies such as wait periods, and enrolling beneficiaries on a household basis. Survey data and stakeholders with knowledge also have identified other opportunities for improving operations for informal workers (including enrollment, payment, and service access) and their participation. When considering larger reform, respondents in this study highlighted the tension between sustainability, subsidization, and equity that governments face when designing policy in a highly politicized area such as population health coverage.

Some EPCMD countries in the sample are also seeking to address weaknesses in demand-side schemes that pool voluntary contributions from beneficiaries in a small geographic or administrative area. Respondents in this study confirmed findings in existing literature that such schemes lacking tax-funded subsidies and government regulation—called “grass-roots community-based health insurance” (CBHI) in this report—achieve minimal coverage rates, do not effectively pool risk across healthy and unhealthy people, and become increasingly unsustainable. Governments in sample countries are all engaged in efforts to pool beneficiary contributions across larger geographic or administrative areas—for example, the state level in Nigeria. They are also complementing beneficiary subsidies with tax-funded subsidies

that are effectively pooled across much larger populations. In addition, they are adding additional government regulatory and management structures to standardize and reduce the burden of operations on local agencies implementing schemes at the local level. While enrollment rates in these schemes remain low, with similar challenges to grass-roots CBHI, governments are continuing to experiment with different governance and financing designs.

Discussion and policy implications

Based on the findings from this study, HFG identified a set of key takeaways for implementers and researchers:

- The dichotomy between the formal and informal workforce may not be helpful for health policymakers in some countries, especially those without existing SHI and where informal populations are relatively large. Governments in these countries should consider grouping the population in more relevant ways. For example, grouping the population by socio-economic status or residence in rural or urban areas may present more meaningful opportunities for addressing challenges in reaching specific populations in a tailored way. Alternatively, disaggregating the informal workforce by sub-group and prioritizing the more vulnerable can allow for an incremental approach to expanding coverage, if such is desired.
- The historical legacy of health coverage fragmented by employment status can be hard for policymakers to overcome, particularly when fiscal space is limited and the pressure to provide equal benefits to all citizens is strong. Intermediate steps that offer different levels of access to care for formal and informal workers may be necessary, and may help avoid perverse incentives for formal workers to become informal, or for any beneficiary to engage in other illegal actions. To continue on an equitable path, such steps should be accompanied by long-term efforts to move towards UHC. For example, governments can envision and create long term strategies for shifting the financing for population coverage towards general government revenue, and transitioning schemes to be mandatory – the consensus in the literature and among key informants in this study.
- Many governments are working to increase the population across which resources are pooled for health coverage. They would greatly benefit from more opportunities for peer learning and targeted materials compiling best practice and lessons learned from countries at varying stages of health coverage policy development. Specific topics include the process and timing for transitioning from lower to higher levels of pooling, and establishing additional government regulatory and management structures.
- Governments should continue to experiment with existing and new strategies for encouraging enrollment and improving scheme sustainability. Governments and researchers should seek to better understand the needs and preferences of informal workers related to their health coverage, and apply these insights to existing plans or operations. Conducting surveys with questions consistent with the ILO definition of informal workers and disaggregating results by socio-economic status can support policymakers and researchers alike.
- Strengthening the regulatory, public financial management, and health system infrastructure in countries will help improve the effectiveness of coverage for informal workers.



I. INTRODUCTION

For low- and middle-income countries (LMICs) pursuing universal health coverage (UHC), overcoming barriers to covering informal workers is one of the most common, yet complex challenges requiring action. UHC represents the goal of providing equitable access to needed health services to the entire population, without putting people at risk of impoverishment. It is based on the idea of health as a human right and posits that entitlement to health coverage should not be contingent on formal employment (Kutzin et al. 2016). The drive towards UHC comes from an acknowledgement that existing systems yield inequitable health outcomes, providing different levels of access to populations based on employment and income as well as other factors (Cotlear et al. 2015).

Informal workers account for a large percentage of the population in LMICs, and are thus a key population of interest as countries move toward UHC. While such workers account for a large percentage of gross domestic product (GDP), work in a diverse range of sectors, and receive a wide range of incomes (ILO and WIEGO 2013), they are, by definition, not provided with legal or social protections through their employment (ILO and WIEGO 2013). Many lack job security and work in unsafe environments, leaving them vulnerable to economic shocks as well as illness and injury (Rockefeller Foundation 2013). When they do need health care, informal workers mostly pay out-of-pocket, and may not have access to quality services (Rockefeller Foundation 2013).

Collecting health care prepayments (such as premiums or income-based taxes) from workers in the informal economy is typically outside the scope of social protection and taxation systems. The challenge is how to bring these workers into coverage schemes that could pool resources to provide affordable, sustainable access to services for those in need. A large body of literature, as summarized in recent seminal reviews (Bitran 2014, Cotlear et al. 2015, Rockefeller Foundation 2013, Bonfert et al. 2015, Pages et al. 2014) discusses the role of informal workers in the economy and how health reform can improve their welfare.

This report contributes to this literature by focusing on countries prioritized for development assistance by the United States Agency for International Development (USAID). These 25 countries are part of the USAID initiative called Ending Preventable Child and Maternal Deaths (EPCMD) (Box 1). Though diverse in terms of income level and geography, EPCMD countries all face high levels of maternal and child mortality and poor family planning outcomes. It is critical for these countries to find a financially sustainable way to give citizens, including informal workers, unfettered access to needed essential services.

This report surveys the experiences of EPCMD countries in expanding the coverage of essential health services among informal workers and summarizes relevant conclusions from the existing global literature. Research questions include:

1. What is the size and character of the informal worker population in EPCMD countries?
2. How do EPCMD country officials understand the challenge of expanding health coverage to informal sector workers?

Box 1. EPCMD Countries

EPCMD countries are: Afghanistan, Bangladesh, Burma, Democratic Republic of Congo, Ethiopia, Ghana, Haiti, India, Indonesia, Kenya, Liberia, Madagascar, Mali, Malawi, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Senegal, South Sudan, Tanzania, Uganda, Yemen, Zambia.



3. What are EPCMD country governments doing to expand health coverage to informal sector workers? What challenges have they faced in expanding coverage and how have they addressed those challenges?
4. What lessons have they learned?

Given the strong interest in these questions among EPCMD countries, USAID commissioned the Health Finance and Governance project (HFG) to conduct this research and provide recommendations relevant to UHC policy discussions in these countries.³ Given the importance of a strong government role in addressing these challenges, this report focuses on the role of government in expanding coverage, while also acknowledging the critical role private actors play in progressing towards UHC.

The report is organized as follows. Chapter 2 presents the methods used in the study, including definitions of informality and health coverage. Chapter 3 is a synthesis of the findings and key messages from recent seminal literature. Chapter 4 analyzes the most recent statistics on informal workers in EPCMD countries. Chapter 5 documents the findings from qualitative interviews conducted for this study. Finally, chapter 6 discusses the implications of the findings, and how they relate to the key messages from existing literature.

³ HFG (2012-2017) is a USAID-funded project that collaborates with partners in LMICs to increase domestic resources for health, manage those precious resources more effectively, and make wise purchasing decisions (<https://www.hfgproject.org/>).

2. METHODS

2.1 Review of seminal documents on expanding coverage to informal workers

HFG identified several documents published between 2013 and 2016 that comprehensively reviewed the literature on expanding health coverage to informal workers (e.g. Bitran 2014, Cotlear et al. 2015, Rockefeller Foundation 2013, Bonfert et al. 2015, Pages et al. 2014). HFG prepared a synthesis of the findings and key messages from a set of these seminal documents that captures much of the work on expanding health coverage to informal workers to date.

2.2 Descriptive analysis of informal employment in EPCMD countries

HFG compiled data on the size and characteristics of informal employment in EPCMD countries. Variables included the labor force participation rate, the percentage of the labor force in agricultural employment, and the percentage of the non-agricultural labor force in informal and formal employment. Key global sources (WIEGO and ILO 2013, ILO 2016a) and country-specific literature were identified through Google⁴ and the websites of national statistics agencies and of the organization, Women in Informal Employment: Globalizing and Organizing (WIEGO). These data, the specific sources, and notes on each indicator are presented in Annex A. HFG extracted the most up-to-date indicator, except when an older source contained multiple indicators and could provide a more harmonized picture. HFG included data for the last 10 years, excluding any from 2006 or before. In some cases, data were not comparable over time (e.g. due to a reclassification of small scale agricultural workers). HFG also gathered several other relevant macroeconomic variables, including GDP per capita and poverty rates from the World Bank's World Development Indicator database (World Bank 2016).

HFG used these data to estimate the percentage of the labor force in the following categories: agricultural employment (all informal),⁵ non-agricultural informal employment, non-agricultural formal employment, and unemployment. To reach these estimates, HFG first calculated the percentage of the labor force in non-agricultural employment by subtracting employment in agriculture as a percentage of total employment from one (i.e. total employment). The result was then divided between informal and formal workers. Estimates of unemployment were included in order to convert estimates as a percentage of total employment to be as a percentage of the work force, which includes the unemployed.

⁴ HFG conducted Google searches for all 25 countries with the following terms: "country name", "informal", "sector", "statistics" to identify relevant sources. For Francophone countries, the search was conducted in English as well as in French, with the terms "country name", "statistiques", "secteur", "informal." The first two pages of results were scanned for relevant results. References of articles or publications on the informal sector were also reviewed in an attempt to identify national statistical reports or other official documents.

⁵ Agricultural employment in LMICs includes a small number of formal workers. Because the numbers are so small and not consistently reported, this report treats all agricultural workers as informal.

2.3 Qualitative analysis of sample countries

The team conducted key informant interviews to identify the main approaches governments have taken to expand coverage to informal workers in EPCMD countries, and understand the implementation challenges governments have faced and how they have responded to them. Of the 25 EPCMD countries, HFG identified a convenience sample of 10 countries based on where existing in-country connections could help identify key informants. These countries are: Bangladesh, Ethiopia, Ghana, India, Indonesia, Mozambique, Nigeria, Senegal, Tanzania, and Uganda. HFG conducted 25 telephone-based and nine in-person key informant interviews using a questionnaire guide (Annex B). Key informants were identified through snowball sampling beginning with HFG contacts (Bernard 2011). Informants included current and former government health insurance agency officials, Ministry of Health (MOH) officials, non-MOH government officials, representatives of local and international non-governmental organizations, implementing partners, and donor representatives.

HFG received an exemption from Institutional Review Board review given the non-sensitive nature of the interview questions. The research team solicited informed consent from all interviewees to ensure that they were willing to participate and allow the interview to be audio recorded. A research team member transcribed the recordings verbatim. *Names and other identifiers were removed from the transcript to preserve confidentiality. These identifiers were replaced with descriptive words to indicate what was removed such as “interviewer” and “respondent.”*

Once the interviews had been transcribed and identifiers removed, HFG developed deductive codes for macro-level analysis. One researcher coded all 34 interviews, ensuring the consistent use of codes. Deductive content analysis was used to condense words into fewer content-related categories and provide knowledge, new insights, and a guide for action (Elo and Kyngas 2008). A codebook with five codes, 28 sub-codes, and operational definitions was developed to serve as a reference for the analysis (Annex C). NVivo qualitative data analysis software (Version 11; QSR International)⁶ was used for data management. The researcher first coded by topic area, identifying *a priori* codes as recognized in the evaluation questions, following the interview guide. Codes included: small innovations, informal workers in country context (i.e. the size and composition of informal workers and the relevance of grouping the population by employment), programs to cover informal workers, challenges, and miscellaneous. The researcher was careful not to impose deductively derived codes on the data where they were not validated within the text (Hennink et al. 2011). Second, the researcher reviewed the data in order to notice repetition, explore underlying concepts, and develop *in vivo* codes. Three new sub-codes (measurement, demand-side financial barriers, and identification and enrollment) were added to the codebook. Semi-regular meetings were held with the larger research team to review questions about codes, discuss emerging themes or concepts, and add new codes.

After coding all interviews, the researcher documented issues that repeatedly emerged across all interviews and across groupings of countries (countries already implementing strategies to progress towards UHC, or countries still developing strategies). Where relevant, the intensity and context of the mentions were also noted, as well as the level of agreement or disagreement between sources. The researcher ran text and coding queries in NVivo to further identify emergent themes (Ryan and Bernard 2003). The researcher exported coding queries into Word documents and organized illustrative quotes by emergent theme.

⁶ QSR International Pty Ltd. NVivo qualitative data analysis software, Version 11. 2015.

2.4 Definitions

2.4.1 Informal workers

In this report, the term “**informal workers**” refers to people of working age who are engaged in **informal employment**. The concept of informal employment uses the job as the unit of analysis: a job is considered to be informal if it does not provide legal social protection to the employee. Informal employment can occur in enterprises that are informal as well as those which are considered to be formal. Informal enterprises comprise the “**informal sector**.” The International Labor Organization (ILO) defines informal enterprises as privately-owned units “engaged in the production of goods or services” that are unregistered, have no legal existence beyond that of the owner, lack complete accounts, and have a relatively small number of employees (ILO 2003 in ILO and WIEGO 2013). Box 2 lists the categories of informal workers who make up this population.

These definitions of informal employment and the informal sector apply to non-agricultural sectors only. With respect to the agricultural sector in LMICs, current consensus is that most workers are informal, that is, without legal protections (ILO and WIEGO 2013). Very few countries tease out formal workers in agricultural employment. Thus, though the reality is certainly more complex in some EPCMD countries, this report considers all agricultural workers as informal (Figure 1). For countries in which the small proportion of formal agricultural workers was reported separately from informal agricultural workers, HFG grouped them together as informal agricultural employment.

Box 2. Categories of informal workers in non-agricultural sectors

Persons employed in the informal sector, specifically:

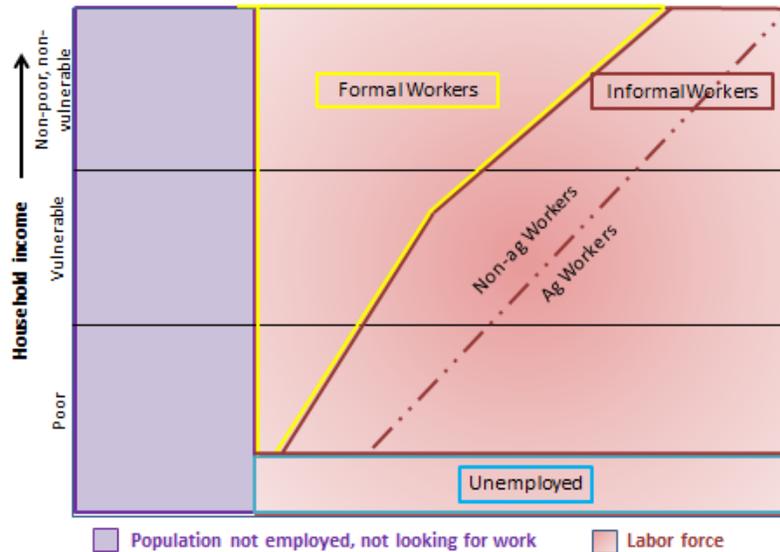
- Employers in informal enterprises;
- Employees in informal enterprises;
- Own-account (self-employed) workers in their own informal enterprises;
- Contributing family workers working in informal enterprises; and
- Members of informal producers’ cooperatives.

Persons in informal employment outside the informal sector, specifically:

- Employees in formal enterprises not covered by social protection through their work;
- Paid domestic workers not covered by social protection through their work; and
- Contributing family workers working in formal enterprises.

Source: ILO and WIEGO 2013

Figure I. Working Age Population by Employment Status



Source: Adapted from diagrams drafted by Ricardo Bitran for authors. This figure classifies workers based on the details of their primary employment, since some individuals may have more than one job.

Figure I also represents another definitional aspect of informal workers: they are classified based on their *primary* employment. It is worth noting that informal workers are not defined by income status. Informality overlaps with the population categories poor (under the poverty line), vulnerable (at high risk of falling below the poverty line), and non-poor/non-vulnerable. Informal employment is typically measured as a percentage of total employment or of the labor force. The **labor force** includes members of the working age population who are either employed, contributing to the production of goods and services, or **unemployed**: people who are not currently working but are looking for work (ILO 2016b). It is composed of people in the **working age population**, commonly defined as those above the age of 15. In fact the lower age limit of the working age population ranges widely in country-specific data and is as low as 10 in Ethiopia (Central Statistical Agency Government of Ethiopia 2014). The labor force excludes people in the working age population who are not employed and not looking for work, such as the elderly or students. The **labor force participation rate** is the percentage of the working age population that is in the labor force.

The ILO definition of informal employment above is not the only definition currently in use. Other definitions reflect the user's understanding of the role of informality in the economy and its primary causes – for example, whether it is a product of excess labor that cannot be accommodated by the formal sector, or rather due to insufficient (or excessive) action by government actors (Menyah 2009). This report uses the ILO definition of informal employment given the role of the ILO as a normalizing institution and its leadership in supporting improved data collection and estimation. To contribute to this effort, this report also aims to document variations in statistics on the size and character of informality in EPCMD countries, and in the understanding of informality by the key informants interviewed.

2.4.2 Health coverage

This report defines coverage in terms of access to quality services and financial protection, two of the three dimensions of UHC, which is about expanding coverage *equitably* (WHO 2010).

Access to quality services: Health service coverage means that health care is available in adequate supply, accessible to those in need, and of adequate quality to achieve real health improvements (or prevent declines in health status). Health services include preventive, promotive, curative, rehabilitative, and palliative care. Access requires that i) the services are geographically close enough for people to make use of them in a sufficiently timely way and available at times when workers can use them without undue consequences for their employment; ii) social or cultural norms do not prohibit or intimidate people in need of services from utilizing them; iii) people are aware of their health service needs and know that the services exist and are available to them; and iv) people have the financial resources to pay for the services and any additional costs such as transport required to make contact with the health system (Guilliford 2002; Kutzin 2013).

Financial protection: Financial protection stems from the idea that people should not risk impoverishment or incur catastrophic expenditure in order to obtain needed health care. Protection must be provided against out-of-pocket payment, which is incurred directly at facilities at the time of need. When health care is primarily financed from out-of-pocket payment, poorer populations may be unable to afford needed services and end up spending a greater percentage of their income, making it an inequitable funding mechanism. Financial protection is ensured through **prepayment systems** that allow people to smooth consumption over time and redistribute benefits to those in need (Kutzin 2013). Prepayment systems can pool risk through insurance mechanisms, or the provision of government subsidies, or a combination of the two.

3. REVIEW OF SEMINAL DOCUMENTS ON EXPANDING HEALTH COVERAGE TO INFORMAL WORKERS

Key Findings

- At the turn of the 21st century, LMICs inherited health systems fragmented on the basis of socio-economic and employment status, with inequitable coverage and health outcomes and with insufficient coverage for informal workers.
- LMICs seeking to expand health coverage to informal worker have employed a range of approaches that may include budget-based and demand-side financing.
- A key differentiator for demand-side financing is whether individuals are entitled to benefits based on contributions they pay, or some other characteristic such as socio-economic status. Most demand-side financing schemes in LMICs are subsidized for the poor, while they vary for the non-poor.
- Identifying, enrolling, and collecting contributions from informal workers is challenging for many LMICs, particularly in voluntary schemes, or mandatory schemes lacking sufficient enforcement. Budget-based approaches avoid many of these challenges, but also may miss opportunities to improve the efficiency, effectiveness, and fairness of health spending.
- Broad consensus in the literature is that enforced, mandatory schemes supported by general government revenue, long-term, can help LMIC governments progress towards UHC. In the short-term, governments have strong rationale for doing otherwise.

Rather than redo existing work, this section draws on existing documents published between 2013 and 2016 that synthesize evidence on expanding health coverage to informal workers in LMICs (Bitran 2014, Bonfert et al. 2015, Cotlear et al. 2015, Kutzin et al. 2016, Pages et al. 2014, Rockefeller Foundation 2013). These reviews cover more than 25 LMICs spanning Latin America, Sub-Saharan Africa, and Asia. They also draw upon cases studies from high-income settings including South Korea, Massachusetts, and Chile. This section describes the spectrum of approaches governments and other actors seeking to expand coverage have used, and the challenges in designing and implementing these approaches. It also considers factors in choosing whether schemes should be contributory or non-contributory, and voluntary or mandatory. Citations are listed when only one or two of the seminal documents listed above present the finding, or when other literature is drawn upon.

3.1 Recent approaches to providing health coverage to informal workers

To understand recent efforts to expand health coverage to informal workers, it is first necessary to appreciate how existing health system structures have created the need and opportunity for reform. The studies reviewed here characterize health systems in the LMICs studied as “segmented,” with population groups defined on the basis of income (poor and non-poor) and/or employment status (informal or formal). These systems often originated in efforts to establish or expand systems that pooled of prepayments across individuals for formally employed populations in the 1980s and 1990s—

for example, voluntary private health insurance or mandatory social health insurance (SHI) (Box 3). However, these employment-based systems excluded or were not commonly used by informal populations, including poor people within those populations. In these inequitable systems, the poor typically accessed MOH-funded services that were lower quality than the alternatives. In contrast, wealthier, formally employed populations received more resources per capita, and often captured a greater percentage of public subsidies for health. Informal workers were left without easy access to prepayment programs, even though they were more vulnerable to poverty, had greater job insecurity, and accounted for a large percentage of the population. The poor among them were particularly vulnerable, since user fees for MOH services also posed a significant financial barrier to accessing even essential care.

Box 3. Social Health Insurance

SHI is a type of insurance that requires mandatory payroll contributions from formal workers and/or their employers. Contributions are pooled across members and often further subsidized with general tax revenue.

Acknowledging that such systems were leaving the poor and informal workers behind, by the 2000s many governments began to initiate reforms. The approaches discussed below are not mutually exclusive; in practice they can combine multiple characteristics from across multiple approaches, and differ in a multitude of nuanced ways (Kutzin et al. 2016). That said, a simplified summary of approaches can help readers understand the financing context around expanding coverage to informal workers.

Some governments have tried to improve coverage for informal workers by using supply-side budgetary transfers to improve the services provided at MOH facilities. In LMICs, MOH facilities are mainly frequented by the poor, and thus allow governments to direct funding indirectly to the poor. Many other governments established demand-side schemes, which directly link subsidies to services received by beneficiaries (Gupta et al. 2010). These demand-side schemes tend to target the poor and fully subsidized membership for them through general tax revenue. Later, some of these demand-side schemes expanded to include non-poor informal workers. Another type of scheme seeks to extend eligibility to SHI to informal workers, typically the non-poor, on a voluntary basis.

Another demand-side approach to addressing the inequality of the problems associated with fragmented populations and health systems was non-profit insurance schemes that pool and manage voluntary contributions from beneficiaries in a small geographic or administrative area. These schemes differ from those mentioned above in that they specifically aimed to cover informal workers and their families, rather than the poor or formal workers (Bitran 2014, Bonfert et al. 2015). Typically, these schemes offered no premium exemptions for the poor and vulnerable. The authors of this report refer to these schemes as “grass-roots community-based health insurance” (CBHI) (Box 4).

Box 4. Grass-roots CBHI

The insurance schemes described here have traditionally been called CBHI. However, many schemes labeled as CBHI have changed in fundamental ways since first introduced, and share only some characteristics of “grass-roots CBHI” described in this section. Thus, the term CBHI now refers to schemes that vary widely in their design and implementation. In this report, authors draw a distinction between what is termed “grass-roots CBHI” with other schemes that may still pool contributions from beneficiaries across small geographic or administrative areas but that differ in other ways.

While the approaches mentioned above differ in many ways, one particularly relevant differentiator is the basis for entitlement to benefits. In some schemes, individuals are entitled to benefits because they contribute to it (“contributory”), or because of another characteristic, such as where they live, their income level, or their citizenship (OECD 2011 in Kutzin et al. 2016). As previously mentioned, most LMICs fully subsidize coverage for the poor, who are entitled to benefits on the basis of their income level. The situation varies for non-poor informal workers, who often but not always participate in schemes on a contributory basis. Such contributory schemes may include partial subsidization with general tax revenue but still require processes to identify which beneficiaries are poor or non-poor, and collect premiums from the non-poor. Contributory and subsidized schemes can be either mandatory or voluntary.

3.2 Challenges in achieving better coverage to informal workers

Governments implementing the demand-side schemes described above have faced challenges in designing and implementing core functions of coverage. Challenges related to the enrollment of beneficiaries are common to all schemes. First, many informal workers, poor and non-poor alike, may not be aware of the benefits (Bappenas 2012 in Bonfert et al. 2015). Even when armed with all necessary information, non-poor informal workers who are required to contribute to receive benefits may not want to participate. Individuals may not believe that participation can help them pool resources across time, and consider health costs made when not sick a waste (Holzmann 2014). Migrant workers who are informal may not stay in an area long enough to reap the benefits (Hopkins et al. 2016). Individuals may also prefer to face current, known challenges, rather than participate in new schemes that may bring new, unknown ones (Holzmann 2014). Moreover, the service packages offered may not include a comprehensive set of services, leaving gaps in the health needs of informal workers and making them less attractive to them workers (Bitran 2014, Bonfert et al. 2015). Perceived poor quality of covered services has also been found to discourage informal workers from enrolling in health insurance schemes (Rockefeller Foundation 2013, Bonfert et al. 2015). And in many LMICs, public facilities participating in government-managed schemes tend to provide services of poor quality, relative to alternatives (Bitran 2014, Cotlear et al. 2015).

Other functions, such as identifying potential beneficiaries and their characteristics and collecting payments from the non-poor, are also challenging. Identifying the poor alone has administrative and informal costs and remains challenging for many LMIC governments (Cotlear et al. 2015); the poor, however, are a relatively homogeneous group compared to informal workers (Bonfert et al. 2015). For migratory informal workers, identification brings additional challenges, since they may lack registration documentation or do not meet requirements for legal tenancy (Hopkins et al. 2016).

Administrators of contributory schemes need to collect premiums from the non-poor, which can be challenging given the nature of informal worker income and personal finances. Many informal workers have insufficient income to afford even relatively small contributions, particularly when they are flat and not sensitive to income levels. The income informal workers have may be unstable or irregular (Rockefeller Foundation 2013). Moreover, in many LMICs only a small percentage of informal workers (e.g., only 16 percent in Indonesia) have bank accounts to help smooth consumption (Bappenas 2013). As with the identification process, collecting premiums from informal workers also carries time and administrative costs for both the collector and the beneficiaries. Such costs are particularly high in rural areas (Bitran 2014, Bonfert et al. 2015). Informal workers are also sensitive to the time cost of registering and paying premiums, so the convenience of payment systems has a significant effect on their likelihood of paying premiums (Bonfert et al. 2015; Hopkins et al. 2016).



Many of these challenges are particularly severe for voluntary, contributory schemes. Studies show that only a small share of informal workers enroll voluntarily in these schemes, and those who enroll are frequent users of health services and/or in need of high-cost services. This problem of “adverse selection” makes it impossible to pool risk, and schemes end up financially unsustainable. This problem is well documented in those insurance schemes that pool voluntary beneficiary contributions across small administrative or geographic areas and that only cater to people outside the formal sector, since they tend to have memberships that are too small to cover health risks effectively. Even schemes that also include the formal sector, like SHI, have recorded deficits from high service utilization rates among their informal enrollees, whose premiums are often less than the health expenditures that they generate (Bitran 2014).

Approaches to expanding coverage that rely on general tax-system revenue to improve services at MOH avoid many of the challenges presented above. However, in LMICs such approaches tend to rely on historical budgeting to make decisions about allocating resources, and miss opportunities for strategic purchasing which can improve the efficiency and effectiveness of health spending (Kutzin et al. 2016). In some cases this approach has been able to provide effective coverage to the poor, including poor informal workers (Kutzin et al. 2016), but in other cases access to quality services has remained low and out-of-pocket spending high among informal workers.

3.3 Efforts to address challenges

Governments have tried various tactics to address these challenges, with varying degrees of success. To promote enrollment and prevent adverse selection, some countries have had to make insurance enrollment a prerequisite for various necessities, like driving licenses (Philippines), work permits (Philippines), and commercial loans (Peru) (Cotlear et al. 2015). Others (e.g. Vietnam, Philippines) enroll informal workers on a group basis (e.g. as a household, community, occupation-based groups) instead of on an individual basis (Bonfert et al. 2015). Group enrollment is easier to administer, requires fewer administrative costs, allows for faster expansion of coverage, and has had some success in the Philippines (Bonfert et al. 2015). Other measures to encourage the enrollment of healthy informal workers, such as enrollment assistance and outreach and insurance education, have been minimally effective (Bonfert et al. 2015).

Literature highlights two voluntary schemes, in China and Rwanda, where enrollments rates have been much higher, particularly in rural areas (Cotlear et al. 2015, Bonfert et al. 2015). However, the particular hierarchical governance structures in these countries place pressure on local government authorities to achieve high target rates, and this pressure is likely passed on to the population. Thus, such schemes have mandatory characteristics, and may not be comparable to other voluntary schemes. More mature UHC programs (e.g. Chile’s Fonasa, Social Security of Costa Rica, Turkey’s SHI) have had more success with mandating contributions from non-poor informal workers but revenue collection from this group remains a challenge (Cotlear et al. 2015).

3.4 Weighing options for schemes: contributory and non-contributory, voluntary and mandatory

Despite these efforts, in most cases the challenges have not been fully addressed. This reality indicates that voluntary, contributory schemes, whether they target the non-poor or include both poor and non-poor groups, are unlikely to be sustainable or provide effective coverage to informal workers.

There are still reasons why governments may choose schemes that require voluntary, or quasi-voluntary, contributions from non-poor informal workers. While there is broad recognition that mandatory schemes are preferable to voluntary schemes (Cotlear et al. 2015), some governments that have established mandatory schemes lack the necessary enforcement. For example, Ghana's National Health Insurance Scheme (NHIS) has mandatory enrollment which lacks effective enforcement, and enrollment, remains low (Blanchet and Acheampong 2013). Governments may also turn to voluntary options as a political stopgap, providing coverage options to informal workers before systems that can operate schemes with better designs are established (Cotlear et al. 2015).

A strong rationale for requiring contributions from the non-poor is insufficient fiscal space to subsidize all informal workers. This reality may weigh heavily in design decisions, given how quickly health care costs can rise, and is a significant factor in low-income countries where resource constraints are particularly severe (Bonfert et al. 2015). Governments may estimate that the number of non-poor, non-vulnerable informal workers is relatively large, and thus see potential for raising significant revenue. Additionally, requiring contributions from the non-poor can help governments avoid increasing the "tax wedge," whereby formal workers and their employers feel they pay for health care benefits that are provided to informal workers for free. Studies from Mexico and Colombia indicate that this dynamic creates incentives for workers to leave the formal sector, an outcome that runs counter to macroeconomic development objectives (Pages et al. 2014). Resentment is particularly strong where there is no difference in the packages offered to informal workers with subsidized coverage and formal workers who pay. The resulting perverse incentives can give rise to other illegal actions such as falsifying income reports to be categorized as poor and avoid paying their contributions (Bitran 2014, Cotlear et al. 2015).

Despite these clearly understandable problems, consensus in the documents reviewed is that mandatory enrollment is essential in establishing schemes that can provide effective and sustainable coverage. Using general government revenue, generated from direct or indirect taxes or other sources, could allow some governments to provide full subsidies to the population. Such reforms would reduce the reliance for financing coverage expansion on payroll taxes from formal workers. This change would help de-link benefits from contribution, and reduce fragmentation in employment (Kutzin et al. 2016). Of course, generating sufficient revenue to provide full subsidies would require extensive tax system reform for many governments, and in some cases fiscal space may be insufficient to achieve universal coverage for many years.

4. CHARACTERISTICS OF INFORMAL EMPLOYMENT IN EPCMD COUNTRIES

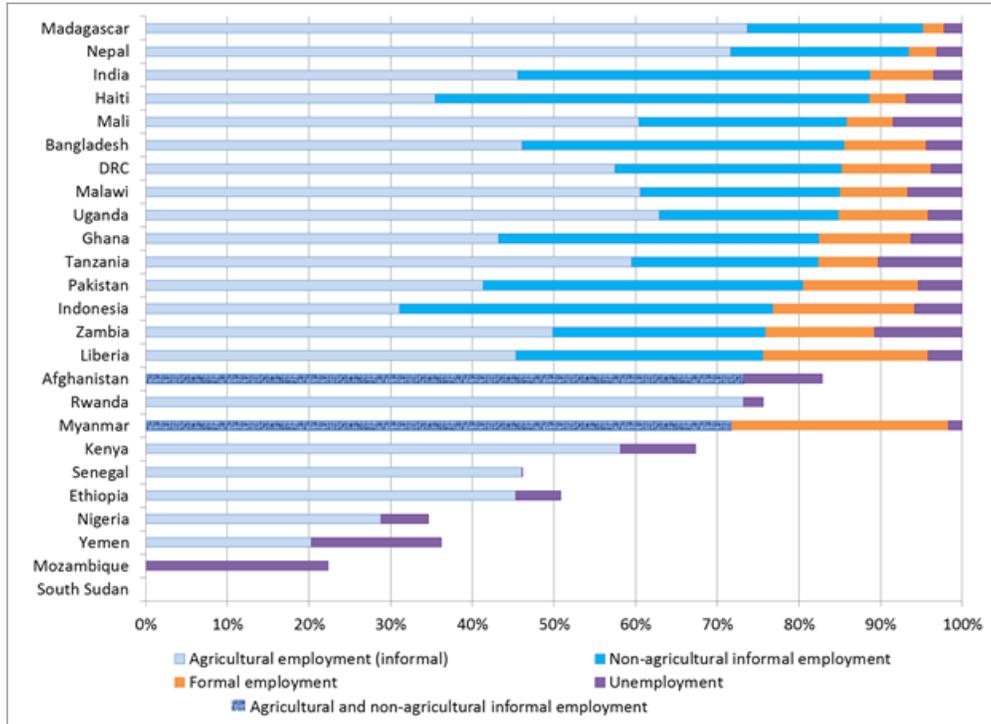
Key Findings

- With informal employment constituting more than 70 percent of the labor force in 16 EPCMD countries with complete data, EPCMD countries as a group have a high percentage of informal employment, relative to high-income countries and, data indicate, also to other LMICs.
- In about half of EPCMD countries, agricultural employment accounts for more than half of informal employment. The share of agricultural to non-agricultural informal employment varies inversely with GDP per capita.
- Many but not all informal workers are living in poverty. Even those who fall above the poverty line likely face heightened risk of economic and health shocks.
- Though not the focus of this report, the population that is not employed and not looking for work accounts for an average of a third of the working age population in EPCMD countries and needs to be considered in UHC policy.

This section presents data on the size and characteristics of the population of informal workers in EPCMD countries, and draws comparisons with global and regional patterns.

Figure 2 presents available data on the labor force by employment status in EPCMD countries. These figures represent the authors' best attempt to compile comparable data for each workforce population group, despite variations in definitions, years, and methods that reduce their comparability across indicators and countries, and missing data for some countries.

Figure 2. Informal Workers as a Percentage of the Workforce



Notes: *Not possible to separate agricultural and non-agricultural informal employment; **Comparable data on all or some variables not available; missing bars for any of the variables in these countries indicates that the variable was not available. For complete documentation of sources and notes, please see Annex A.

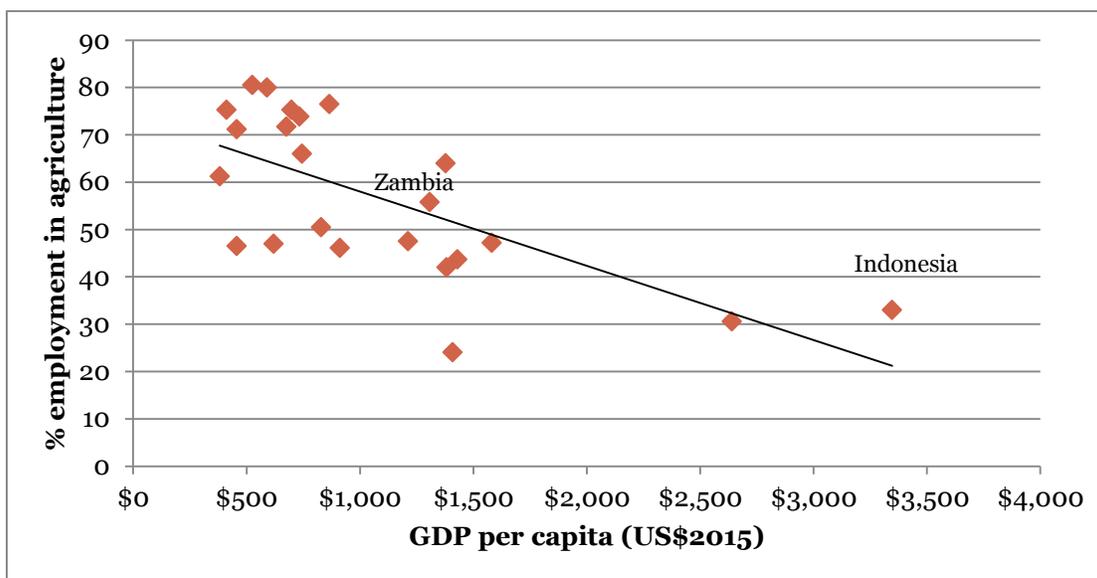
With informal employment constituting more than 70 percent of the labor force in 16 EPCMD countries with complete data, EPCMD countries as a group have a higher percentage of informal employment, relative to high-income countries and, data indicate, also to other LMICs (Figure 2, ILO and WIEGO 2013). Informality within non-agricultural employment is greater in EPCMD than in other LMICs. This finding comes from a comparison of data from EPCMD countries with a 2014 ILO report that compiles data for 41 LMICs, among which are nine EPCMD countries (ILO and WIEGO 2013). Though the 41 countries are not necessarily representative of all LMICs, the comparison may still point to a relevant trend. Data in Figure 2 also show that in 13 of 25 EPCMD countries agricultural employment is greater than or equal to 50 percent.⁷ In seven of those 13, it is more than two-thirds. This pattern aligns with the fact that, globally, agricultural workers represent the largest group of informal workers and 60 percent of the global work force (Rockefeller Foundation 2013). These data together indicate that EPCMD countries on average have a larger percentage of the employment that is informal than other LMICs, which generally have higher informality than in high-income countries.

The relative size of agricultural employment varies inversely with GDP per capita in EPCMD countries (Figure 3). This pattern likely reflects the fact that countries tend to urbanize as they develop. A smaller share of agriculture in employment means that the share of non-agricultural work in employment

⁷ South Sudan has no data on the relative size of agricultural employment. Annex A shows that employment in agriculture as a percentage of total employment is 59.1 percent in Afghanistan and 50.2 percent in Myanmar.

expands as GDP per capita increases. Data indicate that this additional non-agricultural employment is mostly informal in EPCMD countries.

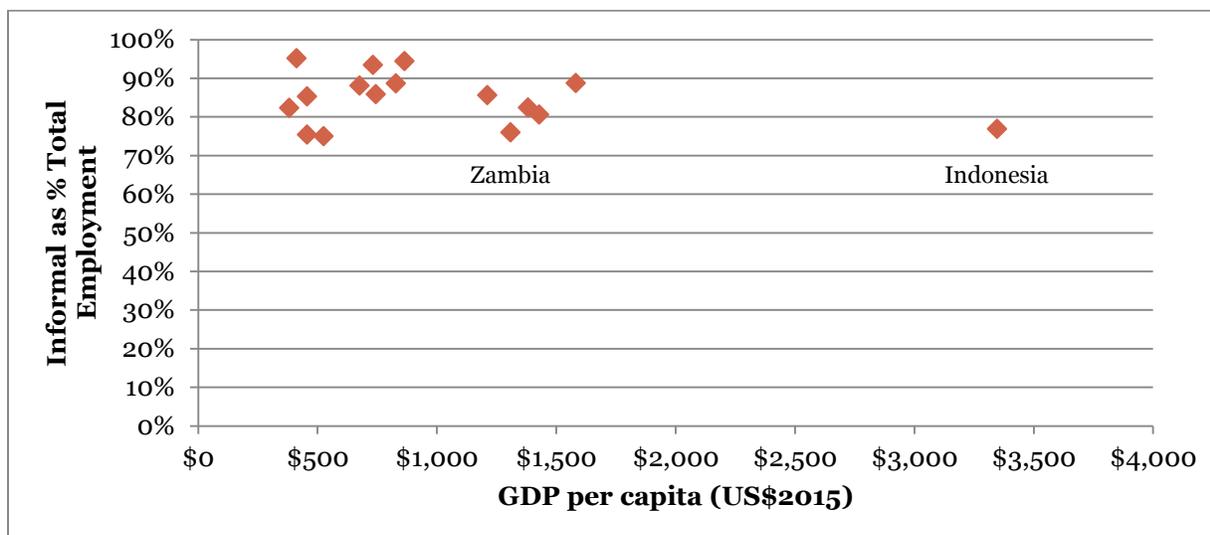
Figure 3. Agricultural Employment as a Percentage of Employment by GDP per Capita



Notes: See Annex A for data sources.

Globally, countries with a higher proportion of informal employment tend to have lower per capita income and higher poverty (Gillingham and Jouston 2014; Rockefeller Foundation 2013). Informal workers account for more of the workforce in LMICs than in high-income countries (over 40 vs less than 5 percent). They also contribute a larger share of GDP compared to high-income countries (25-60 versus 5 percent, respectively) (Rockefeller Foundation 2013). Most EPCMD countries have low per capita incomes (World Bank 2016), and also a high proportion of informal employment—75 percent or more of total employment (Figure 4).

Figure 4. Informal Employment (Agriculture and Non-agricultural) by GDP per Capita



Notes: This figure only includes data from the 16 EPCMD countries for which we had both the percentage of agricultural and non-agricultural informal employment as a percentage of total employment (either aggregated or subdivided).

Many but not all informal workers are living in poverty. Globally, the Rockefeller Foundation (2013) estimates that one-third of the world's 1.8 billion informal workers live in poverty⁸ (~700 million people). Typically, average wages for informal workers are lower than those of formal workers (BPS-Statistics Indonesia and Asia Development Bank 2011). At the same time, other reports have also shown that only a portion of informal workers in many countries live below the poverty line (Bitran 2014). More data are needed to demonstrate the breakdown of informal workers by socio-economic group.

Regardless of whether their income level falls below the poverty line, informal workers face heightened risk of economic and health shocks. Informal workers are not typically registered in taxation and social protection systems nor covered by labor laws and regulations, making them less visible to the government and other stakeholders. Even for those who live above the poverty line, informal work can be insecure, and that insecurity can affect health. If workers have no legal right to sick leave, it may be hard for them to seek needed good-quality health care. Women often lack the flexibility to seek maternal health care and may face “bodily harm and psychological and sexual abuse” at work (Rockefeller Foundation 2013).

A population not included in these workforce statistics is also significant: people who are neither employed nor looking for work. In Afghanistan, Haiti, Myanmar, Pakistan, and Yemen, this group accounts for more than 50 percent of the working age population. In another five EPCMD countries (Bangladesh, DRC, India, Liberia, and Senegal), it accounts for between 40-50 percent. In countries with low female participation rates, women likely make up a significant proportion of this category (Cho 2012). Female participation rates tend to be higher in low-income countries partly because low household incomes compel more women to work (Cho 2012). This population may also include seniors who have stopped working, only some of whom receive social security benefits. In sub-Saharan Africa, less than 17 percent of seniors receive pensions (UN Department of Economic and Social Affairs 2016). While this report mainly focuses on informal workers employed in agricultural or non-agricultural sectors, given the ultimate objective of UHC, it is worth considering this large population.

⁸ The report defines poverty as living under US\$1.25 per day.

5. FINDINGS FROM QUALITATIVE ANALYSIS

This section presents the findings that emerged through interviews with the 34 key informants from 10 EPCMD countries (“sample countries”). Analytical methods are presented in the Methods section. As mentioned, informants included current and former government health insurance agency officials, MOH officials, non-MOH government officials, representatives of local and international non-governmental organizations, implementing partners, and donor representatives. HFG analyzed transcripts of the interviews to identify commonalities and differences across interviews, and used existing documentation to confirm and supplement information provided by key informants. This section first presents findings related to the usage of the category of informal workers in health policy making and the types of approaches to extending health coverage in informal workers used in sample countries. It then identifies common challenges faced in implementing them, along with solutions governments in sample countries are employing to address them.

5.1 Does the grouping “informal workers” have value for health policy making?

Key Findings

- Informal workers comprise a large and heterogeneous group that EPCMD governments do not always choose to target for expansion of coverage.
- Some policymakers designing health reform choose to target only specific categories of informal workers; others do not group the population by employment status.
- In some cases, the impetus for designing schemes that target informal workers may come from non-governmental or external stakeholders.

When asked about the makeup of informal workers in their respective countries, many informants were quick to note the diversity within the group. As one informant (Ghana 01) said of informal workers, “...so if they are not paying taxes and so forth, they are going to be part of the informal sector. That does not mean that they are all poor.” Given the diversity and volume of informal workers, some governments do not seek to expand coverage for them as a group.

Instead, some schemes target sub-groups of informal workers who may be particularly vulnerable. For example, the Chief Minister’s Comprehensive Health Insurance Scheme, which is run by the Tamil Nadu state government, lists members of unorganized labor welfare boards and their dependents as eligible alongside poor families (DHFV Government of Tamil Nadu 2016). Similarly, India’s *Rashtriya Swasthya Bima Yojna* (RSBY) specifies that 11 categories of informal workers⁹ are eligible for coverage, along with the poor (MOHFW–RSBY 2016). An informant explained that the government included informal

⁹ These 11 groups are 1) Building and other construction workers registered with the Welfare Boards 2) Licensed Railway Porters 3) Street Vendors 4) MNREGA workers who have worked for more than 15 days during the preceding financial year 5) Beedi Workers 6) Domestic Workers 7) Sanitation Workers 8) Mine Workers 9) Rickshaw pullers 10) Rag pickers and 11) Auto/Taxi Drivers.

workers who may not be poor, but remain particularly vulnerable, as well as those who are easier to include because they are more organized and can also afford a nominal contribution (e.g. taxi drivers):

“We have chosen these [...] categories of the informal [...] which are supposedly [...] not very well-off categories. For example, we have building and construction workers, railway porters, domestic workers, street vendors, taxi drivers, [...] sanitation workers. So all these categories—except for taxi drivers,[who] have to pay 50 percent of the premium—[are] free from paying any premium[...] The assumption was that [taxi drivers and rickshaw drivers] have at least some money to pay, so they can pay 50 percent of the premium. And when I say premium, it’s a very small amount [...] in RSBY, the average premium right now is 5 to 6 dollars per year, per family. So what we are telling people in these families to pay is basically 3 dollars or 200 rupees per year per family.” (India 02)

Governments in four sample countries (Nigeria, Tanzania, Senegal, and Ethiopia) have developed schemes targeting informal workers. These schemes derive from grass-roots health insurance schemes with pooling at community- or district-levels, though they now include poor informal workers and vary in other ways from the traditional model (Section 5.2.2). However, informants from Nigeria and Tanzania indicated that, at least in these countries, the focus on informal workers may have come through the influence of non-governmental and external actors rather than the government’s prioritization of informal workers:

“...Now, I don’t think it’s fair to say that the government woke up and said that they are going to have community health funds to prioritize informal sector. I have never felt that here. I feel what we often feel, which is a donor-driven perspective related to community based health insurance...” (Tanzania 01)

“...The bill was developed by a broad array of stakeholders. So we had the private sector [...] donor organizations [...] development partners. We had a wide array of stakeholders coming together to develop that bill [...] It was stated in that bill that it will be a priority of the government to also reach out to [the informal] sector. So I think the influence was from a wide range of stakeholders.” (Nigeria 01)

In other countries, respondents indicated that discussions of health policy tend to divide the population into urban and rural groups, rather than into employment-based groups. The rationale is that the challenges to expanding coverage are starkly different in urban and rural populations, and more difficult in the latter:

“In rural areas, [...] the main barrier is the distance to reach a health [facility], things like that, while in urban areas, the main problem is quality of services. So whatever approach we take, I think, would have to be from urban settings, from rural settings.” (Mozambique 03)

“... in Uganda, over 80 percent of the population is in the rural areas. So the way the services are structured focuses really on trying to reach that population because they are the ones who have challenges in terms of access and not the urban areas. Essentially that’s the focus of the government’s support.” (Uganda 04)

5.2 Approaches to extending health coverage to informal workers

Key Findings

- Government-driven, demand-side schemes in sample countries provide coverage to informal workers in theory, but their enrollment remains low.
- Most of the demand-side schemes in sample countries require contributions from the non-poor, including non-poor informal workers, as a basis for entitlement to benefits. For the poor, including poor informal workers, coverage is fully subsidized.
- Other efforts that improve health coverage for informal workers include supply-side investments or other demand-side approaches targeting the poor (including poor informal workers) such as user fee exemptions and vouchers.
- Privately-managed schemes provide coverage to informal workers but enrollment is also low.

5.2.1 Demand-side schemes with national- and state-level pooling

The government of India is currently implementing RSBY, a financial protection scheme with a national-level risk pool. RSBY is voluntary and non-contributory scheme for eligible members who include poor families and 11 categories of informal workers (MOHFW 2016). Household enrollees pay an annual registration fee, while the federal and state governments pay 100 percent of the premiums to a private insurer that is selected by each state government (MOHFW 2016). Enrollment is on a household basis (MOHFW 2016). The service package primarily includes secondary care, excluding outpatient and intensive tertiary care (Marten 2014). In 2011/2012, the scheme was operational in 25 of 28 states and covered about 100 million of India's 1.26 billion citizens, or about 28 percent of households living below the national poverty line (NHIA 2012, Dror 2012).

Bangladesh's *Shasthyo Shurokhsha Karmasuchi* (SSK) is similar to India's RSBY, though still in its pilot phase. Only poor families are eligible to enroll, and their enrollment is voluntary and non-contributory. The unit that manages SSK is currently under the purview of the Ministry of Health and Family Welfare, but, according to government plans, will become an independent agency (Theide and Rosemberg 2015). Like RSBY, SSK's benefit package only covers inpatient care at hospitals (Theide and Rosemberg 2015). Eventually, the government aims to establish one national-level resource pool that is non-contributory for the poor and contributory for the non-poor (MOHFW 2012).

Several states in India also run demand-side schemes that cater to informal workers. Aarogyasri Health Care Trust is a mandatory, non-contributory scheme that targets families below the state poverty line, which is notably higher than the national poverty line (*Andhra Pradesh* 2016). The scheme is run and funded by the State of Andhra Pradesh. It currently covers 86 percent of all families in Andhra Pradesh (*Andhra Pradesh* 2016). The Chief Minister's Comprehensive Health Insurance Scheme, run by the state of Tamil Nadu, is a voluntary, non-contributory scheme that targets poor families and members of unorganized labor welfare boards and their dependents (Department of Health and Family Welfare, Government of Tamil Nadu 2016). The benefit packages of these state schemes only include inpatient and associated outpatient care (Government of Tamil Nadu 2011).

In Indonesia and Ghana, governments have established schemes that consolidate pooling at the national level and aim to cover the entire population (Republic of Ghana 2015, Wirtz 2015). As it initiated reform, the government of Indonesia first merged existing government-run schemes providing coverage to the poorest and formally employed (JLN 2016a). The merged scheme, *Jaminan Kesehatan Nasional*

(JKN), is officially mandatory and contributory for all citizens and residents except the poor, whose premiums are fully subsidized through government revenue (Wirtz 2015, JLN 2016a). However, enrollment has been difficult to enforce, and informal workers still enroll voluntarily (Indonesia 04, pers. comm.). Clinical services covered are the same for all beneficiaries, and non-poor informal enrollees choose one of three levels of health facility accommodation, depending on the premium amount they are willing to pay (Wirtz 2015, JLN 2016a).

In Ghana, enrollment into the scheme occurs at the district level while funds are pooled nationally (Kusi et al. 2015). The scheme is mainly financed via general tax revenue, with another quarter of the funding coming from donor funds, payroll taxes from formal workers, and premiums from informal workers. Although enrollment is mandatory, it is not enforced (Blanchet and Acheampong 2013). The service package is intended to cover 95 percent of Ghana's disease burden, and can be provided at accredited public and private health facilities (Kusi et al. 2015).

To date, the population coverage of schemes in Ghana and Indonesia remains low, likely because of poor enrollment among informal workers. In 2014, 34 percent of Ghana's population was enrolled in the NHIS, and in 2011, 32 percent of enrollees were informal workers (Republic of Ghana 2015). This means that, roughly, during this period about 11 percent of the population consisted of enrolled informal workers—quite low given that 82-88 percent of the labor force in Ghana is informal (Ghana Statistical Service 2014, authors calculations (see section 2.2)). In Indonesia, as of April 2015, 100 million non-poor informal workers, or 40 percent of the population, lacked health insurance coverage (Hatt et al. 2015). Several informants noted that enrolling non-poor informal workers in JKN has been particularly challenging for the government and threatens its ability to meet the 2019 deadline for nationwide coverage under the scheme:

“...Back in 2014, the government of Indonesia [wanted] to have health insurance coverage for all of Indonesia [...] At [that] time, we had challenges with the non-poor informal [sector] because the poor was already covered by the government and formal sector was covered by their companies and the rich would not join this scheme because they use the private health insurance. So then, we have these non-poor informal workers who are still very [numerous]. The enrollment of the non-poor informal workers is very, very low [...] In 2014, it [made up] 20 percent of the population who enrolled.” (Indonesia 03)

5.2.2 Insurance pooling beneficiary contributions across small areas

Governments in four sample countries (Nigeria, Tanzania, Ethiopia, and Senegal) are transforming existing but poorly performing insurance schemes that pool contributions from beneficiaries across a small geographic or administrative area into new models of risk pooling. The experience of Ghana, which established a health insurance scheme with national-level pooling in part from community-level schemes, has relevance for understanding the broad trajectory of these reforms.

In Nigeria, Rural Community Social Health Insurance Programs (RCSHIP), established in 2010, are regulated by the NHIS, a federal government agency established in 1999 that is also responsible for Nigeria's SHIs (JLN 2016b, Odeyemi and Nixon 2013). To participate, members of a community acquire NHIS accreditation. Once accredited, the new RCHIP designs a service package aligned with the NHIS standard, which includes minimum primary and secondary curative care (NHIS 2012). The RCSHIP is responsible for pooling funds from members, and can receive premium subsidies from the NHIS, state governments, and donor organizations for exempt groups (e.g. pregnant women and children) (NHIS 2008). Enrollment into RCSHIPs is voluntary. The urban counterpart to RCSHIP is the Urban Self-Employed Social Health Insurance Programme, which is also regulated by the NHIS (Odeyemi and Nixon

2013). These schemes cover occupation-based groups, which decide on the specifics of the scheme (Odeyemi 2013).

In Tanzania, the government-run insurance schemes targeting informal workers, called Community Health Funds (CHFs), are administered by the National Health Insurance Fund, which also administers Tanzania's health insurance scheme for public sector employees (MOHSW 2015). In most communities, the service package mainly covers primary care. Management and pooling occurs at the district level. The district government authority decides the premium amount after consulting with community members. The government matches premium contributions at 100 percent. Among informal worker households, the poor are supposed to be automatically enrolled in CHFs, with their membership fully subsidized, while the non-poor enroll voluntarily and pay a partially-subsidized enrollment fee. Premiums are collected at health facilities, which remit them to the to the district government authority, where they are pooled with user fees (MOHSW 2015).

Health insurance schemes with community-level pooling have existed in Senegal since the 1980s but had only covered 4.4 percent of the population as of 2010 (MOHSA 2013). To address challenges with enrollment and sustainability (see Section 3.2), the government of Senegal moved to create a tiered system by administrative level, which includes 14 regions, 45 departments, and 557 counties (Au-Senegal.com 2015). In this system, member contributions and subsidies from the national government (covering 50 and 100 percent of premium payments for non-poor and poor enrollees, respectively) are pooled at the county level for primary health care, and at the department level for hospital care (MOHSA 2013, Mbengue et al. 2014). Enrollment is on a voluntary and household basis.

In July 2011, Ethiopia's government piloted schemes with some characteristics of grass-roots CBHI in selected regions as part of its health insurance strategy (Feleke 2015). Under this strategy, a sub-district (or *kebele*) can join existing schemes operating at the district (or *woreda*) level. The sub-district is then responsible for enrolling members in the community, while funds are pooled at the district level (Mebratie 2015). Enrollment is voluntary and on a household basis. The basic service package is standardized and includes all outpatient and inpatient services, while monthly premiums vary by region. The federal government subsidizes 25 percent of the premiums for all members, and district and regional government revenue covers all costs for indigents. After an estimated 52 percent of eligible households in pilot districts had enrolled by August 2014, the government began scaling up the program to the rest of the country (Feleke et al. 2015).

As the above descriptions demonstrate, governments in Nigeria, Tanzania, Senegal, and Ethiopia have made an effort to reform health insurance schemes with community- and district-level pooling. Though some of them are still called "CBHI," these new models may have features that are uncharacteristic of grass-roots CBHI (see section 3): risk pools that extend beyond the community level to allow for more cross-subsidization, subsidies from general tax revenues that reduce reliance on beneficiary contributions, and additional government regulatory and management support to reduce the burden of implementation on individual schemes.

Despite these efforts, the schemes have still achieved only minimal coverage rates. In Nigeria, only about 110 communities are currently implementing RCSHIPs, which provide minimal population coverage: RCSHIP schemes in Lagos cover only 0.7 percent of the state population (Falade 2014, Uzochukwu 2015). In Tanzania, only 8.4 percent of the population is enrolled in CHFs, and dropout rates have been high (Bultman and Mushy 2013, MOHSW 2015). There is little information available on *Tiba kwa Kadi*, CHF's urban counterpart, but informant responses indicate that it faces similar challenges, and is faring worse than CHF. In Ethiopia, the scheme had scaled up to 227 districts as of September 2016, up from 13 in August 2014. However, only 38 percent of eligible households of informal workers had enrolled, and many of the schemes are not sustainable (Ethiopia HSFR/HFG 2016). Given declining membership and high percentages of non-paying members, the schemes will remain unsustainable if the status quo

continues (EHIA 2015). In Senegal, only two percent of the population was covered in 2014 (MOHSA 2016).

Governments in these countries are well aware that the existing schemes are still not reaching their target populations. To address remaining challenges, they are developing new health insurance models (e.g. Nigeria, Tanzania) or adjusting their long-term strategies (e.g. Senegal and Ethiopia). In Nigeria, individual states, in collaboration with the NHIS, are planning to implement their own financial protection schemes (NHIS 2014). These schemes will be mandatory for all state residents and contributory for the non-poor, and will pool funds at the state level. In Tanzania, the government is developing a mandatory scheme that will pool funds at the national level (MOHSW 2015). In Ethiopia, the government plans to address remaining sustainability and enrollment challenges by adopting a strategy similar to Senegal's tiered pooling system, so that funds are not only at the district level, as is currently done, but also at the regional level and ultimately at the national level (EHIA 2016).

Ghana's efforts to expand coverage to informal workers mirror efforts in these countries. When Ghana's NHIS was enacted in 2003, a fragmented, poorly functioning network of 140 health insurance schemes that pooled contributions from beneficiaries within a community covered only 1-2 percent of Ghana's population (Blanchet and Acheampong 2013). From this existing infrastructure, the NHIS has retained the system of district mutual health insurance agencies, which are autonomous corporate bodies that set and collect beneficiary premiums, just as they did before 2003. Unlike the pre-NHIS system, however, these premiums do not remain with district mutual health insurance agencies but are transferred to the single national risk pool. Additionally, most of this pool's funding (~74 percent) comes from a value-added tax, inherently pooled across a large population (Jehu-Appiah 2015). In this way, Ghana's government established a new health insurance scheme with national-level pooling in part from existing community-level schemes.

Of course, as discussed above, Ghana's NHIS still needs reform, given the still lower than desired coverage rates, especially for informal workers (see section 5.2.1). An informant (Ghana 01) explained that, during the writing of this report, the Ghanaian government was reviewing a proposed reform to its NHIS. Under this revision all members of the population will be able to access basic primary care services, regardless of their enrollment in the scheme, and premium contributions to the NHIS will only be required to access supplementary services:

“We are recommending now that the basic package of primary health care should now be made automatically be made available to all the population, 100 percent. So the informal sector will never have to pay any [inaudible]. They will all be automatically entitled to the base package of primary health care. It will be a major expansion of that insurance scheme that will cover the rest of the population, the 60 percent who are not in the scheme today [...], the informal sector who are not in the scheme. They will now be able to enjoy broader healthcare without having to pay anything out of pocket. So this means they will be able to access primary healthcare without necessarily having to access the insurance scheme because we can bring this to all the population.” (Ghana 01)

While other governments may not want to replicate all aspects of Ghana's experience, the broad trajectory of reform in Ghana is something they can learn from. Many of these examples (Nigeria, Tanzania) are still nascent in development, with extensive reform plans yet to be implemented. Senegal and Ethiopia are farther along but still have to address key issues to improve sustainability and the effectiveness of coverage schemes provide for informal workers.

5.2.3 Other government-driven approaches

In addition to the demand-side schemes described above, governments in sample countries are also engaged in other efforts that improve health coverage for informal workers. Many of these efforts target the poor, either directly (basing eligibility in a program on low income) or indirectly (improving services that are typically used by the poor).

In many sample countries (e.g. Bangladesh, Uganda, and Mozambique), budgetary subsidies to MOH facilities are intended to provide free or reduced-cost services to the whole population at public facilities, while also improving the quality of services provided (Ahmed et al. 2015, MOH et al. 2012, Anselmi 2014). Informal workers can benefit from such subsidies by accessing care at government facilities. Similarly, user fee exemptions use subsidies to waive fees either for specific populations (e.g. pregnant women, children under five, adults above 60, the poor/indigent) or specific services (e.g. priority diseases like HIV and tuberculosis) regardless of the user's profile. Like some user fee exemption programs, vouchers waive all direct costs to specific populations, such as pregnant women, when they access care. Eligible informal workers can benefit from user fee exemption and voucher programs, if they choose to receive care at participating facilities. Among sample countries, user fee exemption programs exist in Nigeria, Senegal, and Ethiopia (Kombe et al. 2009, MOHSA 2013, Zelelew 2012) and several voucher programs exist in Uganda (Okwero 2016, *Uganda Voucher Plus Activity* 2016).

Mozambique is the only country highlighted in this report which relies nearly-exclusively on budget financed, input-based subsidies to facilities. Informants indicated that political ideology in Mozambique may make it particularly hard to rationalize demand-side schemes, especially any that would require contributions from members:

“It’s a political party that comes from the age of communism, socialism, where the government is supposed to provide everything to its people free of charge. So it’s not really easy to introduce initiatives that change radically the way people are used to live.” (Mozambique 03)

5.2.4 Private sector health insurance schemes

Non-governmental actors are implementing various insurance schemes catering to informal workers. In Uganda, several private not-for-profit facilities run health insurance schemes that enroll community groups on a voluntary, contributory basis. The facility can set a minimum requirement on the number of community members that must make up the community group in order to enroll (Basaza 2008). These facility-run schemes account for the majority of insurance schemes with community-level pooling in Uganda (Basaza 2008). Private for-profit insurance schemes are also sometimes an option for some informal workers. In these cases, beneficiaries are typically wealthy (Bitran 2014). In other cases, such for-profit insurance schemes only provide coverage to formal workers through their employers.

In some places, informal worker organizations fill gaps in coverage for their members. The Self-Employed Women's Association (SEWA)—the largest organization of informal workers in the world—is a registered trade union of women who work in India's informal sector. It offers contributory health insurance to its members through a comprehensive insurance program known as VimoSEWA, which also includes life and asset insurance (Ranson et al. 2006). Since its launch in 1992, VimoSEWA has enrolled almost two million people in the span of twenty years (Rockefeller Foundation 2013).

Micro-insurance is another type of non-governmental scheme that can provide coverage to informal workers. In Bangladesh, micro-insurance schemes run by NGOs offer low-income individuals, many of whom work in informal employment, health insurance options with low premiums (Werner 2009). Such schemes can be voluntary, stand-alone schemes, or attached to a microfinancing institution that makes

participation in micro-insurance a mandatory prerequisite for continued access to its financial services (Bangladesh 02, pers. comm.).

In general, private sector schemes have only achieved low coverage of informal workers. In Uganda, the private, facility-based insurance schemes have yet to achieve significant coverage levels despite the government's promotion of these schemes (Basaza 2008). Many of Bangladesh's micro health insurance schemes are struggling to maintain financial viability as a result of low enrollment and retention rates (Werner 2009). Low retention rates also prevented India's VimoSEWA from becoming financially viable as quickly as its designers assumed, though it is well-known (Werner 2009). Key informants from India and Bangladesh also expressed similar sentiments about the coverage rates of these private insurance schemes:

“There are local NGO-led schemes, which are being run. Some of them are a bit more famous like SEWA, which is for the Self-Employed Women Association. There are more than 100 small, small micro-insurance schemes, which are being run by NGOs or similar kind of agencies but again those schemes are very small [...] Most of them are few thousand or few hundred thousand maximum, are the number of people who are covered there.” (India 02)

“That is the challenge and problem in Bangladesh. We have many islands of successes, what I call [...] small pilots. The problem is that [these] island of successes have not be able to up-scale to increase coverage [...] That has become a challenge.” (Bangladesh 02)

5.3 Remaining challenges and solutions governments are employing to address them

Key Findings

- To address poor enrollment rates among non-poor workers and adverse selection, governments are implementing wait periods and enrolling beneficiaries on a household basis.
- Governments face tension between sustainability, subsidization, and equity when designing policy in a highly politicized area such as population health coverage.
- The historical legacy of grouping the population by employment status can be hard to overcome for health policymakers seeking to provide equal benefits to all citizens; some are taking a staged approach that may institutionalize different levels of access to care among formal vs informal workers while helping to avoid perverse incentives for formal workers to become informal, or for any beneficiary to engage in other illegal actions.
- Strong political opposition can delay reform while political support can give struggling schemes a chance to become sustainable.
- Improving regulatory, public financial management, and health systems infrastructure can help improve coverage for informal workers.
- Insufficient data can limit understanding of informal worker needs in terms of enrollment, payment, and service access. Existing data have already identified opportunities for improving operations for and participation of informal workers in schemes.

5.3.1 Sustainability and service coverage

The financial protection schemes analyzed in the 10 sample countries face threats to their sustainability. In alignment with the literature (see Section 3), low enrollment of informal workers in the voluntary schemes studied have led to small pools and adverse selection. These problems, in turn, mean that pooled funds are insufficient to cover the costs of services rendered, even with some amount of government subsidy (NHIS 2008, Purvis et al. 2011, Saleh 2013, MOHSW 2015).

“So people who enroll [...] tend to be high risk or with high health care cost. [...] we see that there is the issue of the long term financial sustainability of the program.” (Indonesia 03)

Informants listed several factors for why health insurance schemes with pooling at the lower administrative level are not sustainable. The informants emphasized the compounding effects of pooling funds across relatively few, and relatively poor, beneficiaries:

“...Because if you look at what is currently happening, we have multiple community health insurance schemes with [...] small, small fragmented pools. [Enrollment of] the community, if you remember, is voluntary. [...] The rich hardly participate in community schemes because they have other options so the pools of the community schemes are weak. And because they are weak, they don't have the power to negotiate and to purchase health care for their members. And as a result, they continue to remain small, their buying ability is low, the benefit package is small, you know, and because there is no form of... relationship with other pools, there is no integration...with other pools, the pools continue to be there with...there are dropouts and we have a lot of [CBHIs] that are not functional because there are dropouts. The little that they contributed has been used. And eventually, the scheme eventually dies quietly.” (Nigeria 02)

“...When you don't have the big pool and equalization mechanisms and you're leaving the poor, rural areas out there, then they have fewer community health insurance people. Most of the population is there but fewer sign up for community health insurance because they either can't afford it or they don't get anything from it, and then you're into a negative cycle.” (Tanzania 01)

Common steps that countries have taken to prevent adverse selection in demand-side schemes include implementing wait periods, which prevent enrollees from being able to access benefits as soon as they enroll, and enrolling beneficiaries on a household basis, which means that once a member of a household enrolls into a scheme, all others must also enroll and pay premiums (Feleke et al. 2015). Indonesia did not implement these measures from the outset of the JKN but decided to do so after incurring a large deficit:

“...Most of these people immediately, once they registered their ...health condition...that requires a high significant amount of spending – for instance, they need an operation... after the operation the compliance to continue paying the premium is very low. So, this is what we call ... moral hazard or selection bias. ... [Now,] you have to have a time lag between registration and effective use of the services. It takes 14 days. And then another thing is also they only registered the members who are sick in the family. So, [now] we request all the people in the family have to be registered” (Indonesia 01)

Efforts to reform schemes with community-based pooling reflect the tension and complementarity between sustainability and subsidization: governments in Nigeria and Tanzania cannot sustainably subsidize health coverage for non-poor informal workers to the extent they would like, and yet requiring or increasing the contributions required from them may continue to dampen enrollment. While describing Lagos state's experience, one informant explained that the government of Lagos is currently providing partial subsidies for all non-poor RCSHIP members, as well as full subsidies for the

poor. However, under the state scheme, the government of Lagos will discontinue this partial premium subsidization for the non-poor. The transition may alienate informal non-poor and deter them from enrolling in the state scheme, though informants hope that expanded benefits under the state scheme may help ameliorate this problem:

“... we know that now the CBHIs, the enrollees are being subsidized, premium is being subsidized. So [we are] trying to convince them that it’s going to be state health insurance, that we [will] have more benefits than the CBHIs. Because the CBHIs presently now only [covers] primary health care services but the state health insurance will include primary and secondary, although secondary will be quite minimal. So we are trying to convince, especially board of trustees and also the council of Obas and the chiefs ... , that the state health insurance [will have] more benefits than the community based health insurance scheme.” (Nigeria 03)

This tension also has equity and political dimensions, as demonstrated in Tanzania’s current efforts to design a NHIS. Under the current system, civil servants are mandatorily enrolled in a scheme with national-level pooling that provides them with a comprehensive service package. In contrast, informal workers who enroll in CHF’s typically receive coverage for primary care services (MOHSW 2015). The ultimate plan is for the national-level scheme to provide a uniform service package to all citizens. However, as one informant emphasized, current fiscal space is insufficient to give new enrollees the level of benefits currently provided to civil servants.

“[...] once you give very generous benefits to one group, such as civil servants in Tanzania, it’s very hard to take them away. So, now everyone is breaking their heads thinking ‘how do we make the benefits package similar for other groups?’ But it’s hard, it’s impossible from a fiscal standpoint. (Tanzania 02)

Given these constraints, the government of Tanzania plans to have two types of service packages for the early phase of the future NHIS: the standard minimum benefit package, which will include preventative and curative services available at dispensaries, health centers, and district hospitals (upon referral), and the “minimum benefit package plus” package now accessed by civil servants, which will be automatically extended to private sector workers and the extremely poor (MOHSW 2015). Non-poor informal workers will have to pay an additional fee to receive minimum benefit package plus benefits (MOHSW 2015).

This approach would allow Tanzania to move forward with establishing the NHIS. It may also help Tanzania avoid creating perverse incentives for formal workers to become informal, or for any beneficiary to engage in other illegal actions—documented consequences of creating equal benefits but differing contributions for formal vs non-poor informal workers in other countries (Section 3). However, this approach may also institutionalize different levels of access to care based on employment status. Echoing the findings from the literature (Section 3), informants stressed that, to ensure financial sustainability funding pools will need to be linked to general government revenue, rather than relying on contributions from informal workers; coverage should not be tied to divisions based on employment status:

If it’s possible, [governments] should avoid this division...when people have to start thinking, ‘Okay how do we insure our population?’, they shouldn’t say ‘[...] because we cannot afford it, let’s start with formal sector only and then move gradually.’ They should say ‘Let’s pool all of our money in one pot and see what we can afford for everyone.’ (Tanzania 02)

“...Don’t ignore the general revenue health budget. The general revenue is by far the largest pool. It is by far the best mechanism to subsidize the poor but also the informal sector, as necessary...” (Tanzania 01)

5.3.2 Political dynamics and timing

The actions of key political actors sometimes delay the efforts by health sector technocrats to push forward reforms that can extend health coverage to informal workers. For example, in 2006 Uganda's MOH began preparing a bill to establish a new financial protection scheme, which was intended to cover informal workers (Basaza et al. 2013). Opposition from key stakeholders, such as the National Social Security Fund and the private sector, has since delayed the introduction of the NHIS (Basaza et al. 2013). The National Social Security Fund argued that the establishment of the new scheme would threaten its authority, and at first refused to join the National Task Force, a multi-sectoral group appointed by the MOH to lead the development of the insurance bill (Basaza et al. 2013). Private-sector insurers were concerned that the NHIS could negatively affect growth of the private insurance market. This opposition may have prevented Uganda's President from publicly expressing his support for Uganda's latest plan for the scheme in 2011 (Basaza et al. 2013). Thus, while the cabinet had expected to launch the NHIS in 2013, as of January 2017 the government has yet to finalize the bill:

“As we speak now, difficulties are still going on. There is no approved bill. They are still working on a bill. [...] They are at the level of having to make a decision, [at] a political level. Because the technical people think they've done enough so the politicians now to make up their mind.”
(Uganda 04)

In contrast, Senegal's and Ethiopia's experiences show the positive impact that political backing can have on the development and implementation of reforms to expand health coverage to the informal sector. In Senegal, the sustained commitment of the national government and the involvement of local administrative authorities facilitated the efforts to reform the health insurance schemes with community-level through the creation of tiered system with pooling across schemes (Cheik and Camara 2014).

“... These people at decentralized levels who have this mandate as champions mobilizing people [...] the leaders, mayors are considering the mutuelles, the universal health coverage as part of their mandate. And this has created a lot interest, I think, in terms of informing people...”
(Senegal 01)

“You need a political will. What I have seen in Senegal is if the high level of government, the president [is] involved with the direction, people are confident in this as a key priority.” (Senegal 02)

Similarly, Ethiopia's national government has backed its commitment to establishing and reforming the schemes covering informal workers (see section 5.2.2) by funding premium subsidies, operation costs for managing the schemes, and quality improvements at health facilities (Feleke et al. 2015). The support of administrative authorities has also been observed to be essential for the success of individual schemes:

“Where there is a strong commitment from the administration side, the performance of CBHI, enrollment is high, so it depends on the commitment from the government side.” (Ethiopia 11)

5.3.3 Regulatory, public financial management, and health service delivery infrastructure

In several of the schemes analyzed, barriers to expanding coverage to informal workers resulted from weaknesses in the regulatory infrastructure. For example, an informant explained that outpatient services may have been excluded from the service packages in RSBY and the state schemes in Andhra Pradesh and Tamil Nadu because India's outpatient market is unregulated, and thus dangerous for the insurance companies which handle claims for the government to manage:

“If you go for an outpatient care, because the system is so unregulated and so fragmented, [these] outpatient care costs were not deemed feasible or economically viable by the insurance company because the insurance companies also know very little about the status of the patient. So there is a high chance of supply-induced moral hazard.” (India 03)

Because of this limitation, these schemes do not cover outpatient care, which leaves a gap in the continuity of care and renders beneficiaries vulnerable to high out-of-pocket payment:

“...So the entirety of healthcare needed -- which is basically outpatient requirements and also the requirements ... [for] continuity of care, like somebody who has gone through some kind of a procedure in a hospital [...] most of them will be left out and will not be covered, so it will necessarily depend on the private sector or providers who can make sure they can get the continuity of care...” (India 01)

Regulation can also be designed to discourage expansion of health coverage to informal workers. For example, in Bangladesh, national regulations and health system inefficiencies can hamper the ability of micro-insurance schemes from expanding:

“According to [Microcredit] Regulatory Authority regulation¹⁰, [micro-financers] cannot offer micro-health insurance [to anyone] other than [their] own beneficiaries, so that limits their expansion [...] Now [another] aspect, which is more pertinent, [is] that we don’t have a reliable service all over the country [...] Normally in the insurance system, the people who run the insurance, they purchase the service, okay? But in this country, whoever wants to deliver insurance will have to set [up] on their hospital by themselves, so the NGOs who are running micro-insurance with the microfinance, they have established their own hospitals. The other NGOs who have run the voluntary programs, they have established their own hospital because they cannot purchase services from other hospitals [that are] reliable or available in that area, okay? So therefore, the micro-insurance by the NGOs has inherent limitations.” (Bangladesh 02)

Weaknesses in public financial management infrastructure can also create implementation challenges for demand-side schemes attempting to pool funding at higher levels. For example, in Tanzania, efforts to have district government authorities pool funding from the CHFs face leakage, since district authorities have not been able to disburse the funds that they receive back to health facilities:

“The money goes to the local government authority never to be seen again by the facilities [that] are providing these services. So you’ve got this whole decentralization black hole of the local government built into it.” (Tanzania 01)

Health service delivery system weaknesses can also affect the effectiveness of schemes in attracting and providing effective coverage to informal workers. When demand-side schemes are too successful, there may be insufficient infrastructure to respond to the increase in demand for services and the access promised to informal workers may be illusory.

“The problem that if one goes big bang in improving the demand side initiatives, we have a problem in creating so much demand in the system where you don’t have the supply to master the demand” (India 01)

¹⁰ The Microcredit Regulatory Authority is the central body to monitor and supervise microfinance operations of NGO microfinance institutions in Bangladesh (Source: <http://www.mra.gov.bd/>)

In other cases, under-the-table payments persist because of insufficient supplies at health facilities, thus limiting the actual financial protection provided to informal workers by the schemes.

“But the abolition of user fees did not stop under-the-table payments, and the two are different. So out-of-pocket expenditures, let’s put it that way, whether it’s through user fees or through any payment modality, that has not reduced. In fact, that has increased according to data that we have.” (Uganda 04)

Finally, perceived poor quality of services has discouraged informal workers from enrolling in financial protection schemes:

“So finally, we have four pilot community based health insurance schemes. People are [initially] willing to pay. The only negative stuff we usually get is ... when the provider is not performing as optimally as he should. So people do not re-enroll and we saw that the re-enrollment rate dropped.” (Nigeria 03)

Such problems point to the need for strengthening multiple aspects of the health and public sector systems in the process of strengthening schemes to provide effective coverage for informal workers.

5.3.4 Data on informal workers

To identify informal workers for enrollment in demand-side schemes, governments need reliable data on who they are and where they live and work. As the descriptive analysis of informal employment in EPCMD demonstrated, most EPCMD countries, and all countries studied in this qualitative analysis, have conducted surveys to gather data on informal workers (Section 4 and Annex A). This analysis also demonstrated, however, that most of these surveys are carried out intermittently, with gaps ranging from a year to five years. Given the differing survey methodologies used, cross-time and cross-country analysis are limited. The surveys also do not provide a careful breakdown of informal workers by socio-economic group. Moreover, surveys are not registries of individuals, and do not provide a mechanism for identifying and targeting all relevant individuals.

These data limitations have constrained the design of demand-side schemes in sample countries. For example, according to an informant, India’s RSBY was initially developed to target informal workers but, given the lack of data on this population, the government chose to target the poor instead:

“One of the biggest challenges, which we had when we tried to design the scheme, was that there was no data available about the informal workers in India and that’s where the first hurdle was. So we thought that we’ll start with the poor population because, by definition, anybody who is poor can’t be a formal worker because they must be getting a minimum wage and if you get minimum wage, you can’t be poor.” (India 02)

Data limitations have also hindered the effectiveness of identifying, enrolling, and, in some cases, collecting contributions from informal workers as part of these schemes. In Indonesia, an informant highlighted that better understanding of the informal workers, how to reach them, and what they need would help policymakers design schemes with stronger enrollment among informal workers:

“The strategy needs to be designed clearly, supported by better knowledge about who the informal sector is and [...] where are they, the pattern and so on. So understanding the informal sector is important but I think that’s a missing piece of the strategy, from the road map of implementation of JKN.” (Indonesia 03)

Such lack of knowledge can create situations where unintentional constraints make benefits inaccessible to informal workers. For example, an informant explained that daytime hours of operation for many health

facilities in Bangladesh are inconvenient for many informal workers because they would have to forfeit wages to access care:

“Just simply take an example that most of the outpatient department of the government and non-government hospital opens from 8 am and work from 2:30pm. So if I am an informal worker and if I want to attend an outpatient department, that means I would have to forfeit my one day wage. But if the timing would have been in the evening or say a bit in the night, probably I could have accessed that service?” (Bangladesh 02)

Being aware of and taking into account the realities facing informal workers could help improve the value of benefits offered to informal workers and, potentially, their willingness to enroll.

In other cases, data collection efforts have been costly and inefficient for scheme administrators. For example, many state governments in India have been unable to effectively collect data on the informal workers who are members of employment categories eligible for their schemes:

“But again, to tell you very frankly, though we have added a lot of these categories, it’s very difficult to get the data from them [...] the state governments in many states have not been able to collect the data for these categories in a very efficient way.” (India 02)

Countries have tried different strategies to collect data on the informal sector. In India, some informal worker categories are registered at local government levels, e.g. municipalities, for enrollment in RSBY (India 02, pers. comm.). However, registration is not centralized, so data collection remains an issue (India 02, pers. comm.). Some governments have also tried to access data through the labor unions that informal workers join. In India, taxi drivers are identified for enrollment into RSBY through their labor unions (India 02, pers. comm.) One of India’s health insurance schemes, Yeshasvini, also targets rural farmers and informal workers through cooperatives (Aggarwal 2010). In Nigeria, Lagos state’s trade unions are registered with the Ministry of Wealth Creation and Employment, which provides the State MOH with lists of the trade union members (Nigeria 03, pers. comm.)

5.3.5 Enrollment, making payment, and accessing services for informal workers

Insurance literacy and information dissemination:

Interviews with informants about insurance literacy echo the findings in the review of seminal documents. For example, informants pointed out that the concept of health insurance and paying for health care when it is not an immediate need is still unfamiliar to many informal workers, or they do not see value in the investment:

“I think the concept for collecting money for keeping people alive is the problem, not the solidarity issue. I think it is collecting money ahead of sickness that is the issue for many Ugandans. ‘If I am well and I am not sick, why should I be thinking about sickness? Why should I be worried about that one?’” (Uganda 01)

“...some of them expressed their fear or expressed their doubt that they don’t feel like paying, like entering into the insurance scheme because they feel ‘what if I pay for the whole year and then I don’t get sick. That means I’m wasting my money.’” (Indonesia 03)

Also echoing the literature was the finding that poor information dissemination by scheme administrators may prevent informal workers potentially interested in the scheme from enrolling. In some cases, informal workers who are enrolled in a scheme are not well informed about its benefits or how/where to access them. A survey of informal workers in Indonesia conducted in 2011/2012 found that 25 percent of informal

workers had never heard of any of Indonesia's health financial protection schemes, 38 percent did not know how to enroll, and some enrollees had a limited understanding of the benefits they would access if they enrolled (Kementerian PPN/Bappenas et al. 2013). Schemes in India also face this challenge:

“And information dissemination is inadequate. ... The RSBY surveys show that 69 percent of the patients first learned of RSBY from a friend or family member and even learned about the hospitals that we empanelled through family members or friends. So, the system has not exactly done a very good job of making it known.” (India 04)

“So what happens is that people have the coverage, in the sense that they have ... an insurance card which basically brings protection from severe illness but they don't know essentially what are the entitlements on the basis of the card...” (India 03)

Countries have used different strategies to sensitize and inform their populations. These strategies include mobilization drives, media campaigns, using volunteers to sensitize target groups, and getting the support of key opinion leaders:

“...for this Lagos state health scheme that is going to take off, ...there will be a mobilization drive in each of the local governments of the state. We have also started this thing with the Obas [*rulers of communities in Southwest Nigeria*], and the chiefs and the religious leaders and the key opinion leaders in the community also, so that we can get to the grassroots.” (Nigeria 03)

In addition to sensitization and advocacy, the government of Indonesia plans to make JKN enrollment a requirement for obtaining a driver's license, land title, and passport (Aliza and Limbong 2015, Indonesia 03 pers. comm.). Informant interviews revealed that other governments (e.g. Lagos State) might follow suit with similar requirements.

“What we are thinking of is there is the LASRRA card. That is the Lagos State Residents Registration Agency. It's a prerequisite for everybody to enroll in the scheme to have a LASSRA registration. As in, if you are in Lagos state and you are resident of Lagos state, you must be enrolled in LASSRA [...] we are looking at leveraging on other functions performed by government and other benefits of government. You cannot access any benefits of government without enrolling with LASSRA and without showing evidence of the enrollment in the mandatory health insurance scheme” (Nigeria 03)

Enrollment and making premium payments:

The preliminary findings of an evaluation of Indonesia's JKN found that the government's online system for enrollment could greatly increase the enrollment rates of non-poor informal workers into the scheme. Unfortunately, the system's technical problems have limited the system's utility, and people are sometimes still required to go through the long enrollment process at insurance offices (Indonesia 03 pers. comm.).

Informant interviews and literature highlighted various ways governments are seeking to address this challenge. The 2011/2012 survey of informal workers in Indonesia identified alternative ways of making premium payments that respondents considered to be more convenient. Examples include allowing informal workers to make direct payments through the JKN management agency's branch offices or field officers, or offering payment frequencies that accommodate different income patterns, such as monthly, seasonal, annual or per harvest premium payments. However, the administrative costs of putting these premium payment systems in place for informal workers are quite high (Kementerian PPN/Bappenas et al. 2013). JKN's managing agency is collaborating with four local banks with more than 15,000 branch offices and more than 100,000 payment points to facilitate easier premium payments (Indonesia 04 pers. comm.). It is also piloting the use of agents to remind people to pay their premiums, collect premiums from non-poor informal workers but the cost of funding this arrangement may be too high for the government (Indonesia 04 pers. comm.).

6. DISCUSSION AND POLICY IMPLICATIONS

Takeaways and Recommendations for Implementers and Researchers

- The dichotomy between the formal and informal workforce may not be helpful for health policymakers in some countries, especially those without existing SHI and where informal populations are relatively large. Governments in these countries should consider grouping the population in more relevant ways. For example, grouping the population by socio-economic status or residence in rural or urban areas may present more meaningful opportunities for addressing challenges in reaching specific populations in a tailored way. Alternatively, disaggregating the informal workforce by sub-group and prioritizing the more vulnerable can allow for an incremental approach to expanding coverage, if such is desired.
- The historical legacy of health coverage fragmented by employment status can be hard for policymakers to overcome, particularly when fiscal space is limited and the pressure to provide equal benefits to all citizens is strong. Intermediate steps that offer different levels of access to care for formal and informal workers may be necessary, and may help avoid perverse incentives for formal workers to become informal, or for any beneficiary to engage in other illegal actions. To continue on an equitable path, such steps should be accompanied by long-term efforts to move towards UHC. For example, governments can envision and create long term strategies for shifting the financing for population coverage towards general government revenue, and transitioning schemes to be mandatory – the consensus in the literature and among key informants in this study.
- Many governments are working to increase the population across which resources are pooled for health coverage. They would greatly benefit from more opportunities for peer learning and targeted materials compiling best practice and lessons learned from countries at varying stages of health coverage policy development. Specific topics include the process and timing for transitioning from lower to higher levels of pooling, and establishing additional government regulatory and management structures.
- Governments should continue to experiment with existing and new strategies for encouraging enrollment and improving scheme sustainability. Governments and researchers should seek to better understand the needs and preferences of informal workers related to their health coverage, and apply these insights to existing plans or operations. Conducting surveys with questions consistent with the ILO definition of informal workers and disaggregating results by socio-economic status can support policymakers and researchers alike.
- Strengthening the regulatory, public financial management, and health system infrastructure in countries will help improve the effectiveness of coverage for informal workers.

In many LMICs, extending coverage to informal workers is central to reforms intended to advance towards UHC. This study examines efforts and challenges to extend such coverage among the 25 EPCMD countries. These countries all face high levels of maternal and child mortality and poor family planning outcomes. They also all face high levels of informality, with agricultural and non-agricultural informal workers together accounting for at least 70 percent of the labor force in the 16 countries with complete data (Annex A). Applying the lens of informality to the discussion of expanding coverage can inform policymakers and researchers in these countries and abroad about the options and challenges in

progressing towards UHC while improving maternal and child health, family planning, and economic outcomes.

This study contributes to the literature by investigating whether government and other health system stakeholders use the dichotomy between the formal and informal workforce in discussions of health coverage policies. Informal workers live in rural and urban areas and engage in diverse types of labor, from agricultural production to waste picking or market vending. They include people living below the poverty line, those who are vulnerable to poverty, and those who enjoy relatively high and stable incomes. As Section 4 demonstrated, a relatively high percentage of the workforce in EPCMD countries is informal, which indicates that extending health coverage to them is a much bigger step towards full population coverage than covering formal workers or the poor.

Because of the diversity and sheer size of the informal worker population, respondents from Uganda and Mozambique in this study found the formal/informal dichotomy unhelpful for health system policy making. Neither of these countries has SHI or any government-run, employment-status-based health insurance scheme that provides significant coverage to formal or informal employees. It is likely that other countries with a similar background, untethered systemically to employment-based grouping, may find more relevance in the population by socio-economic status or residence in rural or urban areas. Such breakdowns may present more meaningful opportunities for addressing challenges in reaching specific populations in a tailored way. Alternatively, disaggregating the informal workforce by sub-group and prioritizing the more vulnerable can allow governments to take a bottom-up, incremental approach to expanding coverage. For example, schemes in India have used an incremental approach by dividing the informal worker populations into categories by types of labor and, as in the case of RSBY, first targeting the more vulnerable of them.

In other countries, the historical legacy of health coverage fragmented by employment status can be hard for policymakers to overcome, particularly when facing limited fiscal space and pressure to provide equal benefits to all citizens. Taking a staged approach may institutionalize different levels of access to care among formal and informal workers. For example, in Tanzania, fiscal space is not large enough to provide informal workers with the same service package provided to formal workers and the poor. A reasonable, yet unequal, stop-gap is to provide a smaller package to informal workers, and offer informal workers the options of paying a contribution to gain access to the remaining benefits. This approach has its benefits as well, since it avoids creating incentives for formal workers and employers to become informal, as happened in Mexico and Colombia (Pages et al. 2014).

To continue on an equitable path, such steps should be accompanied by long-term efforts to move towards UHC. For example, developing long-term health financing strategies that shift the financing for population coverage towards general government revenue can allow governments to gradually shift away from reliance on employment-based revenue sources, including payroll tax or non-poor informal worker contributions. In step with the strengthening of enforcement systems, governments can also plan to transition demand-side schemes to be mandatory for all. These strategies were broadly endorsed in the seminal literature reviewed and in the trends in existing schemes (Kutzin et al. 2016). It was also endorsed by respondents in this study representing countries with a broad range of GDP per capita. This representation indicates that, while full subsidization of coverage for all informal workers may be out of reach in the near term for many EPCMD countries, such financing transitions can still benefit efforts to expand coverage to informal workers and to the entire population.

In the shorter term, some EPCMD countries are seeking to address weaknesses in demand-side schemes that pool contributions across beneficiaries within small geographic or administrative areas. Respondents in this study confirmed findings in existing literature that grass-roots CBHI schemes achieve minimal coverage rates, do not effectively pool risk across healthy and unhealthy people, and

become increasingly unsustainable. Governments in sample countries are all engaged in efforts to expand the populations included in the pooling of beneficiary contributions—for example, to the national level in Tanzania, and the state/regional level in Nigeria and Ethiopia. They are doing so on different timelines and through differing strategies. For example, the government of Senegal is experimenting with a tiered system with different levels of pooling depending on the type of care. According to a respondent in this study, Tanzania is facing challenges in ensuring transparency and accountability when tracking revenue flows from lower to higher administrative levels. Governments in these countries and others inheriting similar systems would greatly benefit from more opportunities for peer learning and targeted materials compiling best practice and lessons learned from countries at varying stages of health coverage policy development. Similar efforts could help these countries address other weaknesses in existing schemes—notably, in establishing additional government regulatory and management structures to standardize and reduce the burden of operations on local agencies implementing schemes at the local level.

Schemes in all 10 countries had yet to achieve effective health coverage of informal workers, and face the challenges of unsustainable financing and low enrollment. In alignment with findings in the seminal documents reviewed, low enrollment of informal workers in the voluntary schemes, or mandatory schemes with insufficient enforcement, in the countries studied have led to small pools and adverse selection. These problems, in turn, mean that pooled funds are insufficient to cover the costs of services rendered, even with some amount of government subsidy.

Governments in sample countries are experimenting with existing and new strategies for addressing these challenges in enrolling informal workers. Existing strategies for addressing adverse selection, also documented in the seminal documents reviewed, include establishing wait periods and enrolling beneficiaries on a household rather than individual basis. Recently, surveys and key informants have identified specific needs and preferences of informal workers that point to specific ways operations of demand-side schemes can improve. For example, a survey from Indonesia identified adjustments to the modes and frequency of making payment that would accommodate the cash flow typical of agricultural and non-agricultural informal workers (Kementerian PPN/Bappenas et al. 2013). Such examples show that being aware of and taking into account the realities facing informal workers could help improve the value of benefits offered to informal workers and, potentially, their willingness to enroll. Unfortunately, some of these strategies are expensive, and may not yield a measurable impact.

Governments and researchers can do more to pursue additional knowledge about the needs and preferences of informal workers related to their health coverage and experiment with strategies for applying them to existing plans or operations. This would build on the research done by Barnes et al. (2014) on how to effectively reach these populations, understanding their needs and profiles, would also greatly advance strategies to engage, enroll, and retain informal workers. Governments can also do more to improve data collection on informal workers. They should conduct surveys routinely, and include questions that are consistent with the ILO definition of informal workers (ILO 2003 in ILO and WIEGO 2013). Where possible, using the surveys to estimate the relative size of the informal worker by socio-economic status would benefit health policymakers and researchers alike. Long term, governments should consider slowly laying the groundwork for a national registry that will make implementation of better systems possible. Researchers can support these governments by identifying best practice related to the development of national registries.

This study also found that strengthening the regulatory, public financial management, and health system infrastructure in countries will likely help improve the effectiveness of coverage for informal workers. As experiences of policymakers in India demonstrate, improvements in the regulation over public and private providers will create opportunities for expanding benefits to informal workers. Less restrictive regulation over micro-insurance operations in Bangladesh might allow such private schemes to achieve higher coverage rates and greater sustainability. Finally, poor service quality, limited basic service

availability, and under-the-table payments can make the benefits provided under a scheme illusory for informal workers. Addressing constraints in the health service delivery system will also improve the effectiveness of health coverage for informal workers.

While the pathway to expanding coverage to the large population of informal workers in EPCMD countries will remain challenging, this study finds multiple short and long term strategies governments can explore. The study also identifies relevant opportunities for researchers to support them. Findings from this study indicate that grouping the population by employment status is mainly relevant in countries where inherited policies have already grouped the population in this way. Even in these countries, efforts to divide up the population into smaller sections can give governments the opportunity to expand coverage in an incremental way. Other incremental steps can be taken by experimenting with existing and new strategies for encouraging enrollment and improving scheme sustainability, improving survey data collection, and beginning the process of establishing national registries. For all countries, governments can envision and create long term strategies for shifting the financing for population coverage towards general government revenue, and transitioning schemes to be mandatory.

ANNEX A: STATISTICS ON THE SIZE OF THE INFORMAL SECTOR IN EPCMD COUNTRIES

Table I. Breakdown of the Working Age Population by Employment Status in EPCMD Countries

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
Afghanistan	Statistics	49.8%	59.1%			81.0%	9.6%
	Source and Notes	Source: ILO (2016a) Date: 2011	Source: ILO Afghanistan Office (2012) Date: 2010			Source: CSO Government of Afghanistan (2014) Date: 2012 Notes: Includes ag.	Source: ILO (2016a) Date: 2015
Bangladesh	Statistics	57.1%	48.2%	41.3%	10.5%	88.5%	4.4%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: ADB and Bangladesh Bureau of Statistics (2012) Date: 2010 Notes: Includes small % of formal workers in agriculture (2% total agricultural workers)	Source: ADB and Bangladesh Bureau of Statistics (2012) Date: 2010	Source: ADB and Bangladesh Bureau of Statistics (2012) Date: 2010	Source: ADB and Bangladesh Bureau of Statistics (2012) Date: 2010 Notes: Includes ag.	Source: ILO (2016a) Date: 2015

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
DRC	Statistics	56.0%	59.7%	28.9%	11.4%	88.6%	3.8%
	Source and Notes	Source: Institut national de la statistique - Republique democratique du congo (2014) Date: 2012	Source: Institut national de la statistique - Republique democratique du congo (2014) Date: 2012	Source: Institut national de la statistique - Republique democratique du congo (2014) Date: 2012 Notes: As % of total employment	Source: Institut national de la statistique - Republique democratique du congo (2014) Date: 2012 Notes: As a % of total employment	Source: Institut national de la statistique - Republique democratique du congo (2014) Date: 2012 Notes: Includes ag.	Source: ILO (2016a) Date: 2015
Ethiopia	Statistics	79.8%	47.9%				5.5%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: Central Statistical Agency Government of Ethiopia (2014) Date: 2013 Notes: Defines labor force as population above age 10; only includes skilled agricultural, forestry, and fishery workers (Table 5.3a)				Source: ILO (2016a) Date: 2015
Ghana	Statistics	79.6%	46.1%	41.9%	12.1%	88.0%	6.3%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: Ghana Statistical Service (2014) Date: 2013 Notes: % for agri-business in Table 4.4	Source: Ghana Statistical Service (2014) Date: 2013 Notes: % of non-agricultural informal workers as a % of total employment	Source: Ghana Statistical Service (2014) Date: 2013 Notes: Treated very small % of employment at NGOs, international organizations, diplomatic missions as formal; % of total employment	Source: Ghana Statistical Service (2014) Date: 2013 Notes: Includes ag.	Source: ILO (2016a) Date: 2015

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
Haiti	Statistics	47.7%	38.1%	57.1%	4.9%		6.9%
	Source and Notes	Source: Institut Haitien de statistique et d'informatique (2010). Date: 2007	Source: Institut Haitien de statistique et d'informatique (2010). Date: 2007	Source: Institut Haitien de statistique et d'informatique (2010). Date: 2007 Notes: As a % of total employment	Source: Institut Haitien de statistique et d'informatique (2010). Date: 2007 Notes: As a % of total employment		Source: ILO (2016a) Date: 2015
India	Statistics	52.5%	47.2%	84.7%			3.5%
	Source and Notes	Source: ILO (2016a) Date: 2014	Source: World Bank 2016 Date: 2012	Source: ILO (2016) Date: 2012			Source: ILO (2016a) Date: 2015
Indonesia	Statistics	67.6%	33.0%	72.5%			5.8%
	Source and Notes	Source: ILO (2016a) Date: 2015	Source: ILO (2016a) Date: 2015	Source: ILO (2016) Date: 2009			Source: ILO (2016a) Date: 2015
Kenya	Statistics	70.0%				82.7%	9.2%
	Source and Notes	Source: Budlender (2011) Date: 2004/6				Source: Kenya National Bureau of Statistics (2015) Date: 2014 Notes: Not include small scale ag	Source: ILO (2016a) Date: 2015
Liberia	Statistics	59.0%	47.3%	60.1%		68.0%	4.2%
	Source and Notes	Source: ILO (2016a) Date: 2010	Source: ILO (2016a) Date: 2010	Source: ILO (2016a) Date: 2010		Source: Liberian Institute of Statistics and Geo-Information Services (2011) Date: 2010 Notes: Includes ag.	Source: ILO (2016a) Date: 2015

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
Madagascar	Statistics	74.9%	75.3%	89.2%		93.0%	2.2%
	Source and Notes	Source: ILO (2016a) Date: 2012	Source: ILO (2016a) Date: 2012	Source: ILO (2016a) Date: 2012		Source: UNDP, Bureau international du Travail, Dial, Instat Madagascar (2013) Date: 2012 Notes: Includes ag.	Source: ILO (2016a) Date: 2015
Malawi	Statistics	74.7%	64.9%	26.2%	8.9%	88.7%	6.7%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: National Statistical Office Malawi (2014) Date: 2013 Notes: Includes small % of formal sector agricultural workers (3% of agricultural workers)	Source: National Statistical Office Malawi (2014) Date: 2013 Notes: As % total urban employment	Source: National Statistical Office Malawi (2014) Date: 2013 Notes: As % of total employment; excludes small % of formal sector agricultural workers	Source: National Statistical Office Malawi (2014) Date: 2013 Notes: Incudes ag.	Source: ILO (2016a) Date: 2015
Mali	Statistics	60.1%	66.0%	81.8%			8.5%
	Source and Notes	Source: ILO (2016a) Date: 2010	Source: World Bank (2016) Date: 2006	Source: ILO (2016a) Date: 2004			Source: ILO (2016a) Date: 2015
Mozambique	Statistics	79.8%	80.5%		7.9%	75.2%	17.0%
	Source and Notes	Source: ILO (2016a) Date: 2012	Source: World Bank (2016) Date: 2003		Source: Capiello et al. 2005. Date: 2004 Notes: As % of the labor force. Labor force includes population over the age of seven.	Source: Capiello et al. 2005. Date: 2004 Notes: Includes ag and is as % of the labor force; Labor force includes population over the age of seven.	Source: Capiello et al. 2005. Date: 2004 Notes: Labor force includes population over the age of seven.

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
Nepal	Statistics	81.1%	73.9%	86.4%		96.2%	3.1%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: Central Bureau of Statistics (2009) Date: 2008 Notes: Labor force defined as population above 15.	Source: Central Bureau of Statistics (2009) Date: 2008		Source: Central Bureau of Statistics (2009) Date: 2008 Notes: Includes ag.	Source: ILO (2016a) Date: 2015
Nigeria	Statistics	72.8%	30.6%			53.0%	5.8%
	Source and Notes	Source: ILO (2016a) Date: 2011	Source: National Bureau of Statistics Government of Nigeria (2010) Date: 2010			Uzochukwu, B. S. C., et al. "Health care financing in Nigeria: Implications for achieving universal health coverage (not clear if the figure includes ag.)	Source: ILO (2016a) Date: 2015
Pakistan	Statistics	45.7%	43.7%	73.6%	26.4%		5.4%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: Statistics Division Pakistan Bureau of Statistics (2013) Date: 2012-2013	Source: Statistics Division Pakistan Bureau of Statistics (2013) Date: 2012-2013	Source: Statistics Division Pakistan Bureau of Statistics (2013) Date: 2012-2013		Source: ILO (2016a) Date: 2015
Rwanda	Statistics	73.6%	75.0%	27.1%			2.4%
	Source and Notes	Source: ILO (2016a) Date: 2012	Source: ILO (2016a) Date: 2012	Source: Institut national de la statistique du Rwanda (2007) Date: 2006 Notes: As % total employment; not possible to combine with ILO data.			Source: ILO (2016a) Date: 2015
Senegal	Statistics	50.5%	46.1%				9.3%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: ILO (2016a) Date: 2011				Source: ILO (2016a) Date: 2015

INDICATORS:		Labor force participation rate: labor force as % of working age population	Employment in agricultural as a % of total employment	Informal employment in non-agricultural work as a % of total non-ag employment	Formal employment in non-ag work as a % of total non-ag employment	Total informal employment (ag + non-ag) as percent of total employment	Unemployment rate as a % of labor force
EPCMD Country	Type of Info						
South Sudan	Statistics						
	Source and Notes						
Tanzania	Statistics	86.7%	66.3%	75.9%			10.3%
	Source and Notes	Source: National Bureau of Statistics Tanzania (2014) Data: 2014 Notes: Labor force includes population 15 and older	Source: National Bureau of Statistics Tanzania (2014) Data: 2014 Notes: Labor force includes population 15 and older	Source: National Bureau of Statistics Tanzania (2014) Data: 2014			Source: National Bureau of Statistics Tanzania (2014) Data: 2014
Uganda	Statistics	85.9%	65.6%	67.0%			4.2%
	Source and Notes	Source: ILO (2016a) Date: 2013	Source: Uganda Bureau of Statistics (2010) Date: 2009/2010	Source: Uganda Bureau of Statistics (2010) Date: 2009/2010			Source: Uganda Bureau of Statistics (2010) Date: 2009/2010
Yemen	Statistics	38.8%	24.1%				15.9%
	Source and Notes	Source: ILO (2016a) Date: 2010	Source: ILO (2016a) Date: 2010				Source: ILO (2016a) Date: 2015
Zambia	Statistics	74.6%	55.8%	29.2%	15.0%	83.4%	10.7%
	Source and Notes	Source: ILO (2016a) Date: 2012	Source: CSO Republic of Zambia (2013) Date: 2012	Source: CSO Republic of Zambia (2013) Data: 2012 Notes: As % total employment	Source: CSO Republic of Zambia (2013) Data: 2012 Notes: As % total employment	Source: CSO Republic of Zambia (2013) Data: 2012 Notes: Includes ag.	Source: ILO (2016a) Date: 2015

ANNEX B: INTERVIEW GUIDE

1. What is the size of the informal sector in [country]? (Is our estimate best/latest)? Are there any data sources on the size and income distribution of the informal sector?
2. How does the government define health coverage under UHC? How are goals set? According to that definition, what percentage of informal workers is “covered” with a package of essential services?
3. Is expanding coverage to informal workers a priority for the government? Why or why not?

If Q3=YES, continue to Q4. If Q3 = NO, skip to Q6

4. *If Q3 = YES*, what programs does the government already implement for improving access and financial protection for essential health services to informal workers?
 - a. What is the legal/policy basis for these programs?
 - b. What population is targeted?
 - c. What do beneficiaries contribute? What financial benefits do they receive?
 - d. Broadly, what health services are covered?
 - e. Where can beneficiaries seek care?
 - f. Are the families of beneficiaries also covered?
 - g. What are some of the challenges the government has faced implementing this program?
 - h. Is the program effective in providing affordable access to essential services to the target population?
5. Are specific groups of informal workers targeted?
 - a. If so, who are these groups and how are they targeted?
 - b. Is the targeting successful? Are there evaluations?
 - c. How much does the targeting cost?
 - d. What are the challenges?

Continue to Q7

6. *If Q3=NO*, are there specific groups targeted by government programs to expand coverage of essential services?
 - a. If so, who are these groups and how are they targeted?
 - b. Is the targeting successful? Are there evaluations?

- c. How much does the targeting cost?
- d. What are the challenges?

Continue to Q7

- 7. What coverage options are available through private financiers like insurance companies, microfinance institutions or non-governmental organizations? To how many informal workers do they provide coverage?
- 8. What are additional ways the government is considering to address remaining challenges to improving coverage to informal workers?
- 9. What practical recommendations or lessons learned have you identified that might help other country governments?

ANNEX C: QUALITATIVE ANALYSIS CODEBOOK

Table 2. Qualitative Analysis Codebook

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Small Innovations	Attempts by health system actors or organizations to develop new, or modify previously flawed, methods of delivering essential health services or extending financial protection to the informal sector	Use this code when actors identify <i>specific</i> ways in which they are <i>explicitly</i> addressing coverage of the informal sector (they think the work is innovative)	Do not use this code when actors suggest global or broad programs, means, or solutions for coverage more generally (including, but not limited to the informal sector)	One innovative way we are striving to reach the informal sector is by enrolling professional associations, farmer collectives/cooperatives, and SACCOs into Community-based (voluntary) health insurance schemes.
Recruitment/enrollment	Explanation of methods to recruit members of the informal sector into new or revised health programs, including health insurance schemes or demand-side financing schemes	When actors describe the means of enrolling informal sector members into health schemes. Can also code when actors discuss sensitization efforts or mobilization around health insurance.	Do not code when actors discuss enrollment more broadly or tangentially without clear linkages to the informal sector	See above
Retention	Description of ways in which new programs that seek to cover the informal sector retain members over time	When actors specifically identify retention practices for informal sector participation in health schemes (insurance or otherwise)	When actors talk specifically about recruitment, only code segments that are about retention here.	In Ethiopia, we've been experimenting with different incentives to retain people at woreda level in CBHI
Targeting	Description of methods used to deliver essential health services or extend financial protection specifically to the members of the informal sector (or subgroups/overlapping groups such as the poor)	When actors describe specific efforts to deliver services to (certain segments) of the informal sector. Can double code with supply side (public) programs	When talking generally about service delivery in a given country	For rural agricultural communities in Bangladesh we provide a reproductive voucher for all women of reproductive age, which they can present at a government facility in order to receive maternal health services free of charge.

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Identification	Explanation of ways in which the members of the informal sector are identified, either formally or informally, by health system actors	When actors discuss registries or other ways to formally identify and estimate the composition of the informal sector (cue: when they talk about jobs, poverty indices, or percentage of certain type of workers)	When actors are simply discussing the identity of the informal sector in terms of composition, but not ways to identify them	We developed a database in which we use primary care facility data in rural or slum areas to identify which members of the community are part of the informal economy for the purposes of enrolling them in CBHI
Informal Sector in country context	Contextual information as well as opinion about the informal sector in a given country, including its operational definition	In the initial stages of an interview when we are establishing the terrain, largely descriptive and context-specific	Challenges or specific features of implementation	The size of the informal sector in our country is 64 million people and that includes the working poor, which has been seen as a priority for the ministry of health
Size	Estimation of the approximate size of the informal sector in a given country (also if the size is unknown), including discussion of lack of data/problems with data (?)	Whenever quantitative population data is mentioned (or its absence highlighted)	Challenges with programs attributable to the size of the informal sector (should be in challenges codes)	See above. The ILO estimates for our country are ___ which includes non-taxpaying workers.
Composition/Identity	Description of who is or is not included in the informal sector, by either wealth (poor, working poor, non-poor) or occupation (farmer, market vendor, mechanic, etc.)	When actors attempt to breakdown the concept by occupation, wealth, or other means	When talking about disease profiles or the composition of risk-pools more generally	The majority of the informal sector in Mozambique consists of rural farmers who are located very far from health service delivery points
Priority	Determination of whether or not coverage of the informal sector with essential health services or financial protection is a priority of the government or other stakeholders	Usually in response to a specific question about whether or not the government or ministry sees covering the informal sector as a priority	Do not code when respondent voices personal opinion that informal sector coverage should be a priority	Government has recognized that this is a priority by dedicating 22% of the MOH budget to designing CBHI
Conceptual utility/validity	Judgement of how the 'informal sector' as a concept is/isn't relevant, useful, or helpful in increasing coverage or financial protection to marginalized communities	When actors explicitly voice an opinion about the concept of the informal sector or it's conceptual shortcomings	When you are inferring from actors' language that it is a flawed concept. Shortcomings associated with implementation	I think that conceptualizing the working non-poor and the poor as an entity that should be prioritized in risk-pooling schemes has been useful for high-level policy discussion

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Changes in the Informal Sector	Describes any efforts to monitor, update, or identify changes in the size, composition, priority, or concept the informal sector in a given country	When actors discuss updating registries or monitoring any feature of the informal sector	When people simply talk about changes to health insurance or changes that extend to the informal sector	Every 5 years we use census data to regular update the National employee database which includes workers traditionally located in the informal sector as well as the taxpayers. OR, the informal economy shrank over the last decade on account of migration and job growth.
Large-scale programs to account for the informal sector	Ways in which stakeholders in the health system are attempting to structure financial or service delivery arrangements to reach the informal sector with essential health services and/or financial protection	Programs that may have a dimension to them that facilities or necessitates inclusion of the informal sector Often elements within the “innovative programs” code can be double coded here.	When people just describe insurance or other health programs more broadly without explicitly discussing the links to the informal sector (which happened commonly).	We are planning on addressing the informal sector by slowly incorporating them into national social health insurance in the country.
Supply side (Public)	Description of efforts to deliver essential health services specifically to the informal sector by bolstering service delivery systems	Responses to addressing the informal sector by boosting health infrastructure, human resources, or availability of commodities (the primary care approach) Can double code with “targeting”	When talking about risk-pooling (insurance)	We have trained XX number of physicians and nurses to account for the growing demands of the informal economy whereby people can afford basic services but often don’t have access to them.
National Health Insurance (Public)	Explanation of the design or implementation of national or social health insurance to cover the informal sector	When actors explicitly link national health insurance provisions for covering the informal sector and how Can double code with innovations (i.e. enrollment)	When mentioning CBHI or demand/supply side subsidies	We are planning on capturing more of the informal sector by enrolling the market women’s collective into the national health insurance program where they will pay a nominal fee
State Health Insurance (Public)	Similar to national, explanation of the design or implementation state health insurance or social health insurance to cover the informal sector	Particularly in federalist countries such as India and Nigeria, where there is tremendous variation in the health sector by states which have their own plans for covering the informal sector	When mentioning national health insurance, CBHI or demand/supply side subsidies	In Tamil Nadu, we have made it mandatory that all residents need pay for health insurance financed by their employer or independently.

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Community-based health insurance (Public)	Explanation of the design or implementation of community-based health insurance (CBHIs) to cover the informal sector	Often the only form of insurance explicitly designed to cover the informal sector and as such, is usually the only form of health insurance in LMICs that isn't national	When mentioning national/state health insurance or demand/supply side subsidies	In Ethiopia, we have developed a tiered pooling system where each CBHI is aggregated at woreda then provincial levels to provide cross-subsidization for informal sector contributors as well as others.
Demand-side financial Incentives (waivers, vouchers, exemptions, subsidies)(Public)	Identification of alternative financing strategies used by governments or health officials to increase coverage for the informal sector by stimulating demand, including waivers, vouchers, exemptions, and subsidies	Double code with "Targeting"	Any larger more sophisticated program that develops risk pools as opposed to financial purchasing or revenue collection arrangements.	We issue waivers for hospital expenses to all children under 5, (including those in the informal sector)
Non-government schemes (Private)	Description of the role of both private for-profit and non-profit companies (or NGOs) in reaching the informal sector through micro-insurance or other means	Discussion of health insurance schemes governed by entities other than the government Also use for illustrative quotes about the limitations of the private sector in risk-pooling or explanation for the lack of private sector involvement in covering informal sector	When talking about differences between private and public sectors without reference to informal sector	We have a micro-insurance scheme run by XX NGO that enrolls market vendors.
Challenges	Challenges of reaching the informal sector with health services or financial protection	Can double code with corresponding innovation code or large-scale code	When discussing positive aspects or successes in covering the informal sector	Due to the small amount of funds available in the national social health insurance scheme, we believe that it will begin running a deficit in approximately 25 years, without increased general tax revenues.
Literacy/awareness	People are not familiar with insurance schemes or do not understand their benefits	Explicit mention about difficulties of cultural practice, knowledge, or attitudes about health insurance An double code with Recruitment/enrollment	Non health financing literacy or awareness of program activities.	People are not accustomed to the government collecting your money and then having it disappear until you get sick. They

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Sustainability	Financial sustainability of interventions/schemes uncertain	Financial or operational sustainability explicitly identified as a challenge	When suggesting that something should be made more sustainable	Current revenues are unable to support the full size of the informal economy for a basic package of health services
Supply constraints	Insufficient supply of resources, including infrastructure and health workers	Whenever classic public health service delivery shortcomings are seen as prohibitive of coverage for the informal sector	When actors describe challenges associated with the informal sector composition or the nature of implementation in bureaucracies	The resources are there, but we don't have enough trained health staff to deliver services across the entire population
Administration	Insufficient management/administrative capacity, or expensive admin needs to implement/enforce	Actors explicitly identify administrative shortcomings as a significant barrier to expanding coverage Often double-coded with large-scale programs or even supply-side programs	As much as possible, try to distinguish from design shortcomings (instead think implementation)	We have a bloated national health insurance agency which has no capacity to design incentives or structured tiered payments for different segments of society including the informal sector
Fragmentation/redundancy	Risk pools are fragmented or overlapping (e.g. for CBHI or Indonesia's many schemes that need to be integrated)	Often double-code with CBHI and occasionally with private micro-insurance. Use with any mention of the challenges or shortcomings of many different risk pools as opposed to single large risk pool	When talking about national or social health insurance	CBHI never works because of the purchasing and cross-subsidization inefficiencies
Identification	Difficulty identifying and collecting premiums from informal workers	Double code with identification programs or identity/composition codes Use when discussing difficulty of knowing who is included in the informal sector	When simply identifying the informal sector	We don't have good employment data so we have no way of knowing exactly who is included in the informal economy and how to go about gaining access to that information.
Ineffective	Schemes not achieve goals of expanding coverage (access and/or financial protection) to informal workers (e.g. OOP spending remains high) OR effects inequitable (e.g. across states/regions)	When actors explicitly mention well-designed programs that go wrong through a variety of implementation challenges Often double code with administration or supply constraints	When something has been designed poorly or has been implemented well	We failed to meet our target of XX% enrollment of the informal sector in 5 years primarily because we don't have CBHI presence or health centers in rural, remote, and insecure areas in the north of the country

Code	Definition	When to Use	When not to Use	Example (hypothetical)
Political issues	Broader stakeholder community objects or other types of barriers to moving forward policy initiatives in this area	Only when overt political environment limits ability to reach informal sector	When it is clear that shortcomings are technical in nature	The president has taken this on board but development partners have muddled the process by designing poorly coordinated and oftentimes confusingly overlapping financial schemes intended to reach the informal sector.
Miscellaneous	Open or inductive codes, can also be explicitly framed deductively	When one of the above codes doesn't work but you think this is important	When information is gratuitous or does not help us answer our research question	In two states we have tried XX which would be particularly useful to a country like XX where they have similar supply-side constraints and low participation in the formal economy
Lessons Learned	Any examples or claims to providing insight that furthers the global pool of knowledge	When unsure about how to code a particular insight that is aimed at using the local context to draw global conclusions	When participants voice a desire to learn more from other countries	In the early 80s we tried to implement CBHI but found that we didn't have the technical capacity to implement, instead we developed an innovative purchasing arrangement which significantly lowered costs and has been studied widely by WHO researchers and MOH officials from neighboring countries
Recommendations	Any examples of statements that the researcher code openly or inductively determine might serve as a more general recommendation	When unsure about how to code a useful piece of prescriptive advice from a study participant	When asking the researcher for recommendations	Never let the private sector get into the business of risk-pooling in poor countries; they'll just screw everything up!
Quote Bank	Any illustrative quotes that would be worth repeating in the final report.	When actors use particularly insightful or colorful works to represent their point. Often that succinctly summarized discussion or something that made you laugh/smile when reading	For anything that you think is important, should be selective	The government tried a CBHI scheme, but it was an absolute disaster because nobody paid attention to the local norms and attitudes about health insurance.

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