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Expanding Financial Protection to Underserved and Socially Excluded Populations: A Global Evidence Review

LOCAL HEALTH SYSTEM SUSTAINABILITY PROJECT

Local Health System Sustainability Project

The Local Health System Sustainability Project (LHSS) under the USAID Integrated Health Systems IDIQ helps low- and middle-income countries transition to sustainable, self-financed health systems as a means to support access to universal health coverage. The project works with partner countries and local stakeholders to reduce financial barriers to care and treatment, ensure equitable access to essential health services for all people, and improve the quality of health services. Led by Abt Associates, the five-year project will build local capacity to sustain strong health system performance, supporting countries on their journey to self-reliance and prosperity.

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Acronyms

CBHI	Community-based health insurance
LHSS	Local Health System Sustainability Project
LMIC	Low- and middle-income country
NGO	Non-governmental organization
PLHIV	People living with HIV
RCT	Randomized controlled trial
SEWA	Self-Employed Women's Association
SHI	Social health insurance
USAID	United States Agency for International Development

1. Introduction

Financial catastrophe as a result of medical expenses, particularly out-of-pocket expenditures, remains a widespread concern globally, and is most prevalent within low- and middle-income countries (LMICs) where inadequate investments, allocative inefficiencies, and poor targeting mechanisms within state-provided health systems result in excessive out-of-pocket expenditure [1]. Evidence points to approximately 100 million people being pushed below the poverty line annually due to out-of-pocket health care costs [2]. Developing an effective, tax-funded health system in LMICs remains difficult for several reasons, including an insufficient tax base, inefficiency in the public health system, and inadequate mechanisms for collecting funds. Thus, many countries have shifted towards implementing different financial protection schemes – such as government schemes like social health insurance (SHI), or voluntary insurance models like community-based health insurance (CBHI), or conditional cash transfers – as a mode for providing citizens with protection from catastrophic health care costs [3]. Inequities remain within such models, where differences exist in health status or the distribution of health resources between different population groups, like the chronically underserved and socially excluded [4]. These groups include the poor, ethnic groups, migrants, or populations marginalized due to their beliefs, educational or legal status, financial constraints, lack of language proficiency, residence in resource-poor areas where services are largely scant [5], or other stigmatizing factors. Orienting health systems to direct resources to the neediest not only will bring benefits to those who are worse off but can also offer important population health gains.

Initiatives to address health inequities in LMICs often result in expanding financial protection schemes to include the underserved and socially excluded groups. Many schemes abolish user fees for all key health services (e.g., tuberculosis, institutional deliveries) while also instituting exemptions for specific population groups like poor people, children, and pregnant women. Challenges in expanding services remain; literature indicates that abolishing user fees does not necessarily lead to improved utilization for vulnerable populations, because, for example, user fee initiatives not offering alternative financial resources for facilities losing revenue undermines the quality of care [6]. Moreover, countries may alleviate the financial constraints to enrolling in social health protection mechanisms for underserved and socially excluded populations, but other challenges exist related to overall population behaviors for increasing enrollment and retention in insurance schemes. Gaps in understanding and gathering health information often exacerbate such challenges; for instance, limited information on vulnerable groups' health needs, root cause issues, and awareness and perception of services being provided could lead to lower uptake of services. Non-financial barriers such as the distance from health facilities, bureaucratic enrollment requirements, lack of trust in the program, and cultural factors may also preclude such populations from receiving adequate care. Understanding the context and all barriers to expanding financial protection to specifically include the underserved and socially excluded is key to overcoming such challenges for those who most need it.

The USAID-funded Local Health System Sustainability Project reviewed existing literature on expanding financial protection to underserved and socially excluded populations in LMICs informed by the social determinants of health and more traditional measures of socio-economic status. The project identified different barriers to targeting these populations (in addition to financial barriers), schemes or interventions used to overcome these barriers, the effect of these interventions, and the strength of the evidence. The review encompassed interventions with an objective or goal related to a specific underserved or socially excluded population, and the interventions must have sought to increase financial protection, reduce financial hardship,

increase enrollment in a social health protection scheme, increase access to health services, increase use of health services, or increase the overall health of the vulnerable group.

2. Methods

2.1 Research Questions for the Literature Search

The research questions for the literature search were:

1. How have countries extended financial protection to underserved and socially excluded populations in LMICs?
    a. What are the different types of barriers to enrolling underserved and socially excluded populations (in addition to financial barriers)?
    b. What are the interventions that have been used to overcome these barriers?
2. What are the effects of these interventions?
    a. What are the effects on enrollment in social health protection schemes, reduction of financial hardship, access to health services, use of health services, and health?
    b. What is the level of evidence for these interventions?

2.2 Literature Search

The literature searched for this review included formal searches of databases on published literature, and a gray literature search including searches of databases of selected institutions, and review of selected websites.

Published Literature

The search site for published literature was PubMed database (https://pubmed.ncbi.nlm.nih.gov/). Local Health System Sustainability Project performed the search on September 8, 2020 and articles published in English, French, or Spanish from January 1, 2000 through the search date were eligible for the inclusion in the study. Annex A details the search terms used. In short, the search was limited to activities set in LMICs and intended to capture works that addressed financial or non-financial barriers to accessing or receiving social health protection or health care services and addressed issues related to underserved or socially excluded populations.

Once titles were identified, the team determined whether to include or exclude the articles based on the following criteria:

1. Article had to assess a specific intervention(s) or activity(s) that could potentially be replicated in other settings,
2. The intervention/activity described in the article had to have an objective or goal related to or targeting a specific underserved or socially excluded population, and
3. The intervention/activity described in the article had to seek to increase financial protection, reduce financial hardship, increase enrollment in a social health protection scheme, increase access to health services, increase use of health services, OR increase the overall health of the underserved or socially excluded population.

Papers were further excluded for the following reasons:

1. The article did not focus on a LMIC,
2. The article was an editorial or author comment,
3. The article did not contain results (e.g., published study protocols were excluded),
4. The article did not contain empirical results based on observed behaviors (e.g., hypothetical willingness to pay or similar modelling studies were excluded).

The review team first read the title and then abstracts of the articles that came up through the key term search. In these first two rounds of reviews, articles were retained ('included') when there was any possibility that the article should be included in the final search results. That is, the title and abstract review were intended to exclude only articles that clearly did not meet the inclusion criteria, or that clearly met one of the exclusion criteria.

The full text of articles retained after the title and abstract review were read to determine their final inclusion in the study using the same criteria listed above.

Gray Literature

USAID's Development Experience Clearinghouse (https://www.usaid.gov/results-and-data/information-resources/development-experience-clearinghouse-dec) and the World Bank's Research and Publications (https://www.worldbank.org/en/research) databases and websites were searched on January 13, 2021 and January 14, 2021, respectively. The searches followed the same strategies as outlined in Annex A. However, due to the differences in the functionality of the database searches between these databases and PubMed, the strategy had to be modified, as listed at the end of Annex A.

Additionally, the following websites were hand searched: Joint Learning Network (https://www.jointlearningnetwork.org/), Results for Development (https://r4d.org/), Palladium (https://thepalladiumgroup.com/), and Oxford Policy Management (https://www.opml.co. uk/). Theses websites were searched after consultation with experts that they were likely to include relevant articles.

Articles found were screened in the same manner as described above for published literature. In cases where abstracts were not available, the article was passed on to full text review.

2.3 Data Extraction and Analysis

To analyze and present the results of the literature review, the team developed a taxonomy system to classify the different interventions described, extracted data from papers based on the taxonomy system and the research questions, and then compiled the data into a narrative synthesis.

Data Extraction

The review team developed a Microsoft Excel template based on the research questions. Specific data extraction fields included:

1. Authors, Title, and Reference information of the article,
2. Country/countries where the article assessed an intervention or activity,
3. Underserved or socially excluded population(s): mentioned in article and/or targeted by the activity or intervention assessed in the article,
4. The factors and behaviors preventing the target population from having financial protection, accessing health care services, or achieving better health in general and specifically for the targeted population (if different),

5. The intervention or activity assessed or described in the article, including details and nuances of the intervention/activity design,
6. The broad intervention classification based on the System of Health Accounts or Bowser et al., as appropriate,
7. Whether the article discusses how the intervention/activities (#5 above) addressed the factors, behaviors, etc. described in #4 above, and if so, how it addresses the factors, behaviors, etc.,
8. The effects of the intervention as stated in the article (disaggregated by population if available),
9. The research method employed (e.g., qualitative, quantitative, mixed method), the research design, and the main outcomes variable(s) or domain(s),
10. Limitations of the study as described in the study article,
11. Any metrics used in the article assessing the extent of equitable financial protection, and
12. Notes related to the data extractors' questions or concerns about the article.

As the team read the included papers, they populated the template with the relevant data from the paper. To the extent possible, data extractors 'copied and pasted' or otherwise retained the wording and intentions of the original authors during this extraction process.

Synthesis of Information

Once data on the research methods, research design, and intervention were extracted into Microsoft Excel by one team member, with each reviewed by another team member to assess accuracy of extraction, the literature review team proceeded to code articles for study type /study design, target population(s), outcome measures used, and the type of results (showing whether the intervention worked, did not work, or had mixed or indeterminate results). To aid in the presentation of the results of the literature review, interventions were also classified into a standard list of interventions, based first on the words the articles themselves used to name the intervention, and then based on the reviewers' reading of the description of the intervention. For example, one article may describe an intervention as 'results-based financing' and another as 'performance payments', but based on reading the description of the activities, the review team decided the activities were similar and thus classified both articles as describing the same intervention (see Section 4.5). The classification of the interventions serves as part of the classification system (as described in the 'Classification' section below), while the classification of the research studies provides descriptive information on the level of evidence available about an intervention.

The data extraction served to answer the research questions for each subcategory of intervention, and results were initially drafted for each subcategory. We then reviewed each of the subcategories to provide an overall summary of:

1. The underserved and socially excluded populations mentioned, and which are studied,
2. The barriers to enrollment, and note lessons around what was done to promote/remove or address barriers,
3. Interventions and the extent to which an intervention was successful in improving enrollment for underserved and socially excluded populations,
4. Which interventions and to what extent did interventions ensure or enable access to health care for underserved and socially excluded populations.

We drew lessons learned for each category of intervention and overall. The lessons learned were based on the results and discussion of the papers included in the review, the syntheses of information for this review, and discussions among the research team.

3. Results of the Literature Search

3.1 Search Results

The search of PubMed resulted in 5,085 titles; after reading, 3,999 titles (78.6%) were excluded, leaving 1,084 abstracts (Figure 1). Of the abstracts, 654 were excluded (60.2%) after reading, leaving 430 papers for full text review. The team excluded 249 papers (57.9%) after reading the full text.

From the gray literature, the most potential papers were found on the World Bank's website, where over 400 papers were found, of which 89 made it to abstract review, 34 full text papers were read, and 23 papers were included in the final results. Eight papers were found from the remainder of the gray literature search. This resulted in 212 papers being included in the final narrative synthesis.

In the papers included in the study, India was the most common study location, with 39 papers, followed by China (26), Ghana (16), and Mexico (12) (Table 1). Based on the global region, 68 (31%) of papers were from sub-Saharan Africa, followed by 60 from East and Southeast Asia (27%), and 46 from South Asia (21%) (Figure 2).

FIGURE 1: LITERATURE SEARCH PROCESS RESULTS

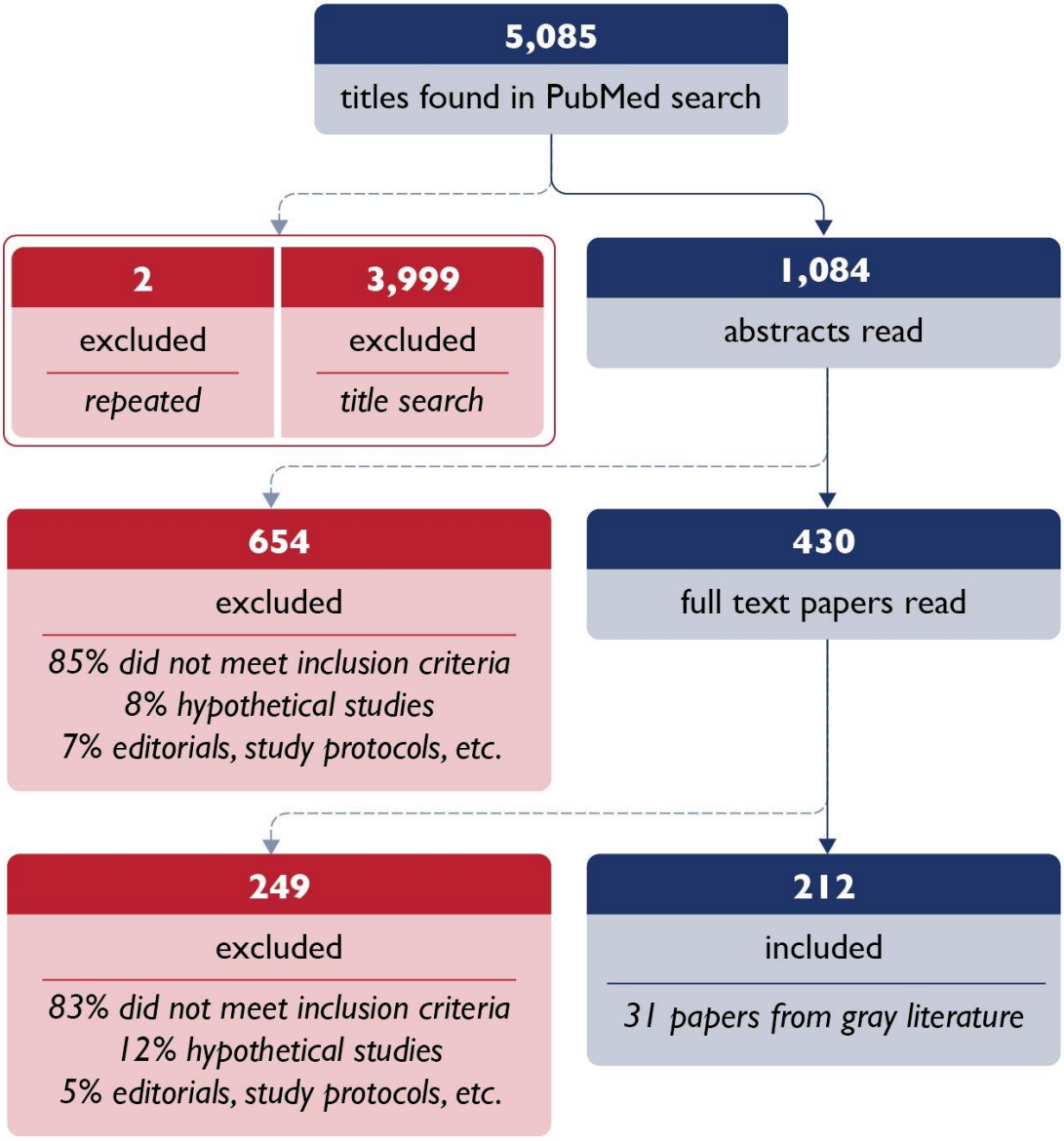
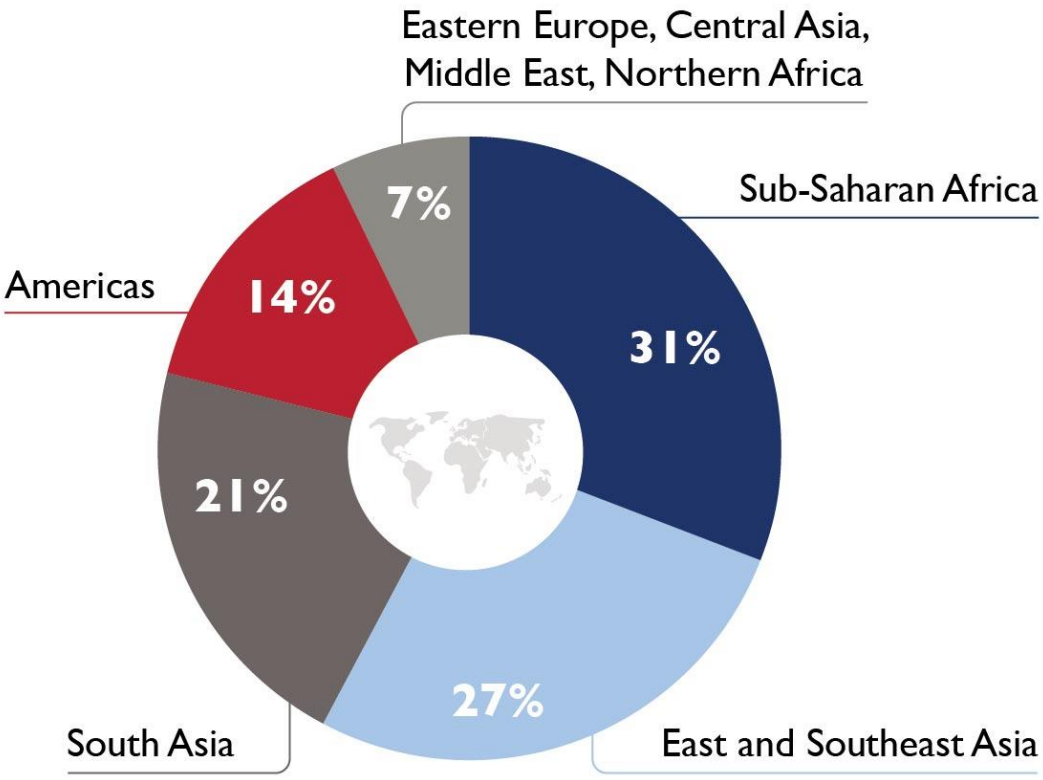


Table 1: Number of papers per country

Country	Number of studies
India	38
China	26
Ghana	16
Mexico	12
Indonesia, Vietnam	9
Colombia, Philippines	8
Burkina Faso, Kenya, Malawi, Rwanda, Georgia, Tanzania	6
Cambodia, Ethiopia, Thailand	5
Bangladesh, Nigeria, Zambia	4
Armenia, Senegal, Turkey, Laos, Uganda	3
Ecuador, Madagascar, Brazil, Nepal, Peru	2
Afghanistan, Benin, Egypt, Argentina, Guatemala, Guinea, Iran, Lesotho, Mauritania, Nicaragua, Pakistan, Sierra Leone, South Africa, Sri Lanka, Tunisia, Zimbabwe	1

Note that some studies included results from multiple countries; thus, the number of studies is greater than 216

FIGURE 2: NUMBER OF STUDIES BY GLOBAL REGION



The most common study design was a quantitative quasi-experimental study, with 139 (65%) of studies, followed by qualitative studies with 46 (22%) (Table 2). Sixteen (8%) of studies used a randomized control trial (RCT) approach and 11 (5%) were mixed method approaches.

Table 2: Number of studies by study type

Study Design	Number of studies	Percentage of studies
Experimental	16	8%
RCT (individual)	3	1%
RCT (cluster)	13	6%
Quasi-Experimental (Quantitative)	139	65%
Observations from multiple times with matched comparison group	8	4%
Observations from multiple times with comparison group	36	17%
Observations from multiple times without comparison group (before/after)	12	6%
Regression discontinuity	7	3%
Cross-section with matched comparison group	10	5%
Cross-section with comparison group	53	25%
Cross-section without comparison group	11	5%
Other quasi-experimental	2	1%
Mixed methods	11	5%
Qualitative	46	22%
Interviews with comparison	3	1%
Case study	35	16%
Interviews without comparison	8	4%
Meta analysis	1	<1%
Total	213	

3.2 Classification of Interventions

The overall goal of the classification system was to present the different efforts to extend financial protection to underserved and socially excluded populations in a mutually exclusive fashion. Thus, a single activity or intervention should fall into only one discrete category. Further, the team aimed to use a classification that would be familiar to readers and facilitate understanding of the results of the literature review.

The team reviewed existing taxonomies for classifying health financing schemes and health system strengthening interventions [7-10]. For interventions falling within the health sector, we used the System of Health Accounts taxonomy to initially classify interventions because it is mutually exclusive and includes clear definitions [9]. For interventions falling outside the immediate purview of the health sector, we adopted the system proposed by Bowser et al. [7]. Once the activities and interventions were classified in these broad categories, we further developed subcategories that describe the individual intervention via an inductive reading of the papers. Thus, the broad category describes the environment or 'system' within which a particular intervention (subcategory) was implemented. For example, the broad category might be "social health insurance," while the subcategory would be a particular intervention to improve the ability of SHI to reach underserved or socially excluded populations.

This classification system assumes that people will approach the taxonomy first with a broad intervention (e.g., a particular kind of insurance) and then want to know what has been done to

modify this broad intervention to reach or improve access to underserved and socially excluded populations. This approach further assumes that there may be differences in the effectiveness of particular efforts to extend social health protection depending on the broad intervention category (e.g., activity X may not have the same effectiveness for private health insurance schemes as it has for a government-run health insurance scheme).

Three broad types of health financing systems and two groups of interventions that did not specify a particular type of health financing system were used to group the interventions (Figure 3). We found results for eight different broad interventions or activities to help government-financed health systems reach underserved and socially excluded populations and ten different broad interventions or activities to help SHI systems reach underserved and socially excluded populations. We found five broad interventions or activities to improve the ability of CBHI schemes to reach underserved and socially excluded populations. In the literature we found three different types of cash transfers that targeted underserved and socially excluded populations, and one method of providing transportation to access health services for underserved and socially excluded populations.

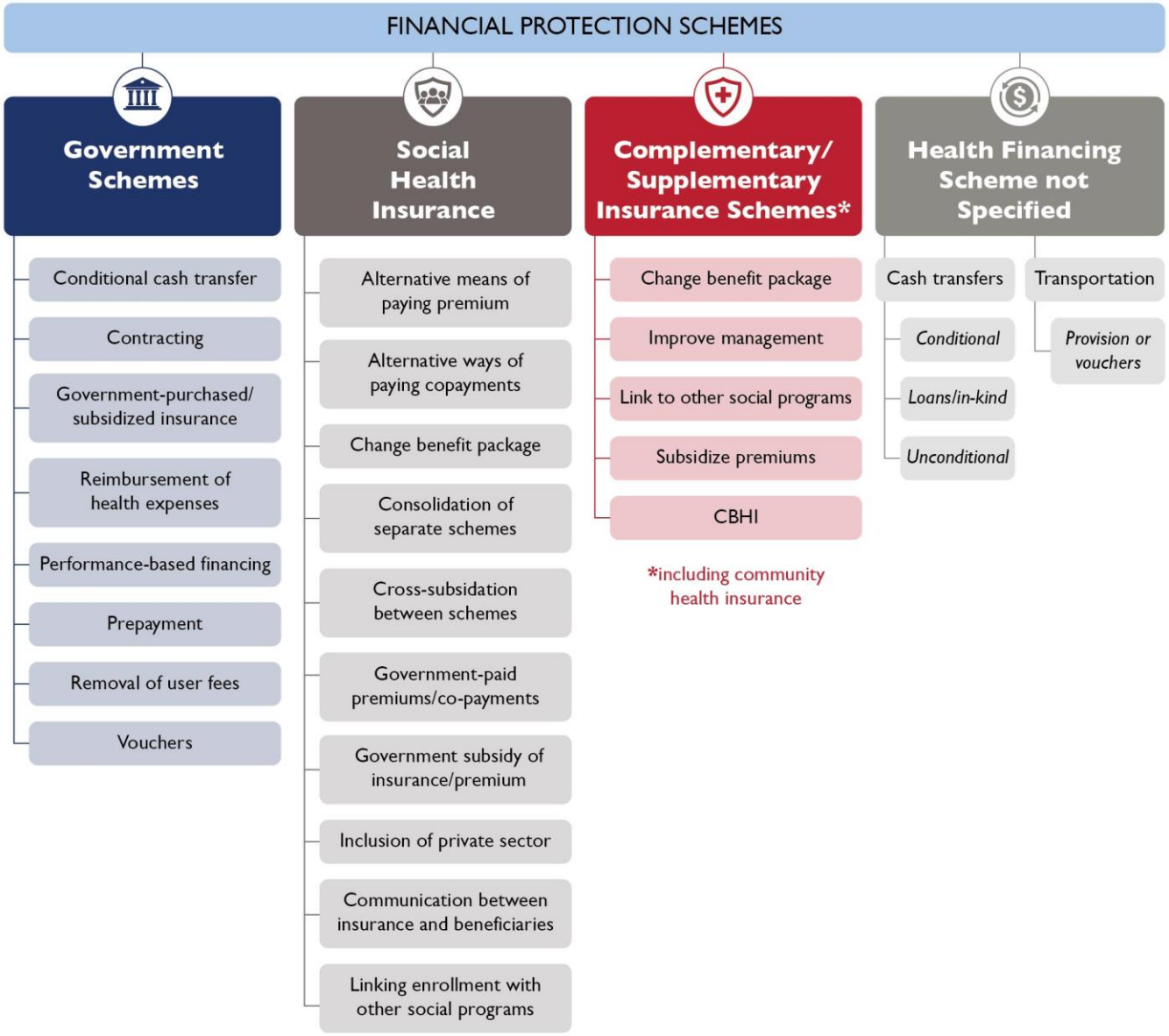
The financial protection schemes used in the taxonomy are defined as follows:

- Government schemes are defined as schemes where funds are allocated from government domestic revenues (primarily taxes) for health purposes. Participation is automatic for all citizens/residents (or a specific group of the population like the poor) defined by law or government regulation. Benefit entitlement is non-contributory and typically universal. Depending on the scope of the scheme, pooling occurs at the national, subnational, or program level [9]. That is, these interventions are intended to improve health systems that are funded by governments.
- SHI schemes are contributory schemes in which benefit entitlement is based on payment by, or on behalf, of the insured person. Funds are raised through non-risk-related health insurance contribution. Insurance contributions may be paid by the government (from the state budget) on behalf of some non-contributing groups of the population, and the government may also provide general subsidies to the scheme. Participation in the scheme is mandatory for all citizens/residents (or a specific group of the population) as defined by law or government regulation. In some cases, however, the enrollment is not automatic and requires actions to be taken by the eligible persons. Pooling may be national, subnational, or by scheme [9].
- CBHI is an overarching term for health insurance that is targeted to informal, low-income households. CBHI schemes are voluntary and characterized by community members pooling funds to offset the costs of health care. CBHI provides complementary or supplementary coverage in LMICs often in contexts where the individuals are legally entitled to the services of government health schemes, but where such schemes are not fully effective. Benefit entitlement is based on contribution. Government may directly or indirectly (e.g., with tax credits) subsidize CBHI. Pooling occurs at the scheme level – and schemes tend to be small [9].
- Health Financing Scheme Not Specified includes interventions that are independent from any particular health financing scheme.
    - Cash transfers involve the provision of payments to individuals or households; typically, cash transfers are not universal (although they can be) but rather targeted at certain portions of the population. Cash transfers are often financed and administered by governments or implementing partners that are not part of the health sector, and thus are not associated with any particular type of health

financing system. However, cash transfers may be implemented in collaboration with the health sector, or have the improvement of the health of the recipients as one of the primary objectives of the cash transfer program.

- Provision of transport to access health services attempts to overcome the lack of availability of transportation, cost of transport, and/or distance barriers to accessing health care services. Because failure to access health care services because of transportation or distance issues can affect people under any type of health financing system and because the transportation sector is (with the exception of ambulances or other referral transport within the health system) often financed and operated outside of the health sector, these interventions are considered to be independent of any particular type of health financing system.

FIGURE 3: CLASSIFICATION OF INTERVENTIONS



4. Government Schemes

This section describes results for 8 different broad interventions or activities to help government-financed health systems reach underserved and socially excluded populations.

4.1 Conditional Cash Transfer

Summary Information

Health financing category:	Government schemes
Name of intervention:	Conditional cash transfer
Other names used for intervention:	Cash transfer
Number of studies included:	4 [11-14]
Countries included in the studies:	India (3), Nigeria (1)
Marginal or vulnerable populations targeted in studies:	Pregnant women, pregnant women below poverty line, pregnant women living in rural areas
Study design:	Quasi-Experimental: 3 (Time series: 1; Cross-sectional: 2) Mixed methods: 1

Description of the Intervention

Conditional cash transfers within government finance schemes involve payment of cash incentives to people in the population when or if they access health services in a manner prescribed in the program. Usually within government schemes, this involves seeking health care services via government-run or government-contracted health service providers, and the conditions and / or payments of the conditional cash transfer are tied into the government-financed health system. Conditional cash transfers where payments to recipients are not tied explicitly to use of government health services are discussed in Chapter 7.

In the papers included in this review, all the conditional cash transfer programs targeted the underserved or socially excluded by providing cash reimbursement for health services that are only used by a specific population; that is, they provided reimbursement for use of antenatal, delivery, and/or newborn care to target pregnant women and young children.

Summary of the Intervention Design

The papers found for this review covered two conditional cash transfer programs: one in India and one in Nigeria. The conditional cash transfer program in India was implemented at the state level, and each state had multiple design decisions and implemented the program in different ways from other states in India. Broadly, in India the conditional cash transfer program gave mothers a cash incentive after giving birth in a government facility. Eligibility for the program, amounts paid to women [11, 14], inclusion of transportation costs, and whether private hospitals were included in the scheme [13] varied across states. Some schemes also provided an additional incentive to target women classified as poor [13]. In Nigeria, the conditions set rely on the woman attending a series of health services from antenatal care, delivery, and immunization, with payments depending on the number of services attended [12]. Further, the amount of the cash transfer in Nigeria is intended to cover user fees and transport costs for the service [12]. In most cases, conditional cash transfers are also accompanied by broader efforts to improve specific health services or the health services in general.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The amount of the cash transfer should be sufficient to influence people's behavior; for example, it should at least be sufficient to cover expenses incurred to fulfill the conditions of the cash transfer – e.g., to pay for accessing health services or to pay for the health services themselves if needed [12-14].

Non-financial: Implementation of conditional cash transfers requires establishing the means to pay potentially large numbers of people, often requiring entering contractual arrangements with parties outside of the health system [12]. Ensuring payments occur, and occur in a timely fashion, are also implementation challenges [11, 12, 14]. Conditional cash transfers may also place additional work burdens on health care providers or patients that should be accounted for in designing the schemes [11, 12]. Finally, targeted populations need to be aware of the conditional cash transfer for the transfer to influence their behaviors and decisions [11, 12].

Stated effects of the intervention

One study reported that over 72 percent of women giving birth participated in the conditional cash transfer program in Odisha state; of the states reported in the study, Odisha had the highest level of participation and 14 out of the 19 states included in the paper had fewer than 50 percent of pregnant women participating in the conditional cash transfer program [13].

Effect on improving access to health services

Intent of the intervention

Financial: The barriers to accessing health services included in these papers include out-of-pocket costs for user fees at and / or for transportation to health facilities that constitute financial barriers to accessing health services. Conditional cash transfers by themselves may help to alleviate financial barriers by either removing user fees, providing women sufficient resources to pay for user fees and transportation, or ensuring that the cash transfer allows beneficiaries to, overall, have a net positive amount of money after accessing health services.

Non-financial: Further factors that may prevent pregnant women from seeking health care mentioned in the studies include long waiting times, poor quality of care, insufficient drug supply and diagnostic capacity [13], and lack of knowledge and / or lack of decision-making authority among pregnant women [12]. To the extent that cash transfers are additional to costs of accessing care, they provide an incentive to pregnant women to seek care even if they are otherwise unmotivated to do so, which may help to overcome some of the non-financial barriers to seeking care. Broader efforts to improve services that can accompany conditional cash transfer programs also help to improve the quality and the perceived quality of health services.

Stated effects of the intervention

The paper assessing conditional cash transfers in India using institutional deliveries before and after the program looked at the targeting of below poverty women in the scheme. They noted that institutional deliveries in the whole population increased after the start of the conditional cash transfer program, but that it increased less for women below the poverty level, who were the targets of the program [11]. In Nigeria, similarly, a multiple point-in-time assessment found no statistically significant difference in the number of deliveries with skilled attendance associated with the conditional cash transfer program [12]. Similarly, the study found no statistically significant increase in attendance at the first antenatal care visit, or for child receipt of the polio vaccine, but did find statistically significant differences in the number of women attending four or more antenatal care visits (p=0.002) and receiving two doses of tetanus toxoid (p=0.002) [12]. The study from Nigeria did not assess coverage but noted that just over 64 percent of women that registered in the program during their first antenatal care visit returned to the health facilities for at least one additional visit [12]. In Madhya Pradesh, a survey found that

84 percent of women had given birth at a participating facility, although the proportion giving birth at a facility before the intervention was not assessed [14].

Effect on improving financial protection

The studies assessing out-of-pocket payments for the scheme in one state in India note that conditional cash transfers do not seem to provide adequate financial protection [13, 14]. Rout and Mahapatra (2019) noted that despite high coverage of conditional cash transfer in Odisha state, out-of-pocket payments for childbirth remain high in that state compared to other states [13]. In Madhya Pradesh, only 26 percent of women received the cash transfer before discharge, which limited the financial protection of the scheme. Assuming the women eventually received the cash transfer, then most women would, on net, have received more than they paid for services and incur less (net) out-of-pocket payments than women who deliver at home [14].

Effect on health outcomes

No studies assess health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: One paper used the amount of out-of-pocket payments incurred, in net and in comparison to the amount of the cash transfer to assess the program [14], while another assessed the out-of-pocket payments incurred [13]. One study assessed women accessing institutional deliveries [11], while the final study looked at women accessing a range of health services (antenatal care attendance, women receiving two doses of tetanus toxoid, skilled attendance at delivery, and child receipt of polio vaccine) [12].

Stated effects of the intervention: The percentage of pregnant women enrolling in or benefiting from the conditional cash transfer program varied widely across states in India. One of two studies found conditional cash transfers associated with increased institutional deliveries, while one study found conditional cash transfers associated with increased access to services before delivery but not for polio vaccinations. From these studies, it is not clear that conditional cash transfers in the government system provide financial protection, possibly because of implementation failures, such as women not receiving the transfers.

Caveats/weaknesses of studies (as reported in the studies): One paper made use only of secondary data [13]. Other papers had a follow-up time of one year or less, indicating that longer-term effects of the conditional cash transfer program were not captured [11, 12]. Lahariya et al. (2011) further notes that the conditional cash transfer program evaluated in their paper was poorly or incompletely implemented, and thus the results should be interpreted reflecting implementation failure rather than the success or failure of a well-functioning conditional cash transfer program [11].

4.2 Contracting

Summary Information

Health financing category:	Government schemes
Name of intervention:	Government contracts with private sector and non-governmental entities to deliver health services to targeted populations
Other names used for intervention:	Contracting public health services through NGOs, public-private partnerships, service level agreements
Number of studies included:	5 [15-19]
Countries included in the studies:	Afghanistan (1), Guatemala (1), India (1), Malawi (2)
Underserved and socially excluded populations targeted in studies:	People in remote areas, poor, poor women, rural poor, underserved populations, young children and women in rural areas who do not have access to ministry of health services
Study design:	Quasi-Experimental: 2 Time series: 1 Cross-sectional: 1 Mixed methods: 1 Qualitative: 2

Description of the Intervention

Contracting in this case involves the government entering into legally binding agreements with other organizations to deliver health services. For inclusion in this review, the contracting needed to include details specifying that the non-government entity deliver services to specific underserved or socially excluded populations.

Contracting can stipulate the methods for the contracted party to reach a specific population in several ways. First, it may employ geographic targeting. Geographic targeting may involve contracting an organization to provide health services in areas where previously no government (or any) health services were available, usually rural, remote, and/or hard-to-reach areas. Contracts may include mobile health units to reach underserved areas [18]. In combination with geographic targeting or separately from geographic targeting, contracts may stipulate specified services used by underserved or socially excluded populations be provided to people free of charge [16, 17, 19]. Payment to patients for transportation fees could also be included to help underserved or socially excluded populations reach service providers [19]. Finally, some contracting mechanisms included bonus payments for achieving pre-specified and independently verified equity targets [15].

Summary of the Intervention Design

The five papers found for this review cover four different contracting schemes all intended to improve the access of underserved or socially excluded populations to health services, with two papers assessing service level agreements in Malawi [16, 17]. One paper assessed four different contracting mechanisms in one country [15]. Contracting involves decisions about who the contract is signed with, what is included in the contracting and what in the contract is negotiable, and how the contract will be monitored and enforced. Governments usually contract with non-governmental or faith-based organizations, but could potentially contract within the government or with parastatal agencies [15]. Contracting can be done at an organizational level covering [15], for example, multiple facilities, with individual health facilities [16], community-based organizations [18], or individual service providers [19]. The government needs to determine eligibility or accreditation criteria for organizations or individuals to be eligible to engage in a contract [15, 16, 18] and criteria for selecting contractors when there is competition [15]. [15]. Contracts can specify the methods for reaching underserved or socially excluded populations [18] or allow contracted parties to develop their own methods [15]. Payment

mechanisms, similar to insurance, can be on a per-capita basis [15, 18], a fee-for-service-style mechanism [17], or a risk-adjusted fee-for-service mechanism [19]. They can also include some 'bonus' payments for achieving certain targets or good performance [15]. Further nuances include whether the budget or the outputs are negotiable [15]. Given principal-agent problems inherent in contracts [17], the government will need to monitor and enforce the contract and establish means for resolution of disagreements. Third-party assessments, including household and facility surveys [15], government supervision and oversite, including audits and review [16, 17], or a combination of the two (although independent monitoring proved expensive in the long run) [18] could be used.

Effect on improving enrolling into/accessing the social health protection

Intent of the intervention

Financial: Not relevant for this intervention.

Non-financial: Use of community health workers or hiring people living in the community can bring services closer to people and raise population awareness of service availability provided through contracts [15, 18].

Stated effects of the intervention

Both papers assessing coverage indicated that contracting increased the coverage of health services. In Guatemala, contracted health providers gave geographic access to health services to about a third of the population (living in rural and remote areas) who otherwise would not have had access to government primary health care services, and, in the areas served, seems to have obtained the same level of coverage as other government facilities [18]. In Malawi, results from interviews and focus groups indicate that there was broad agreement that contracting increased the geographic coverage of health services [17].

Effect on improving access to health services

Intent of the intervention

Financial: Contracted health services can, based on the papers found for this review, be in settings where people have limited ability to pay for services and even small user fees could discourage use of health services. Lack of supplies at government facilities may force people to go to private facilities and pay for medicines and other medical supplies. Informal payments at government facilities may also be a barrier. In the studies assessed, governments did not allow organizations to collect user fees [15, 18] or did not allow governments to collect user fees for pre-specified services [16, 17, 19]. Additionally, one scheme mandated that health care providers pay patients for transportation fees [19].

Non-financial: Distance of populations from government health facilities was mentioned as a barrier in all papers. Other barriers discussed included lack of knowledge of service availability in the population [15]. On the supply side, contracting is discussed as a mechanism for overcoming the lack of capacity in the government system [16-19], or in situations where the government system has been affected by conflict or other stressors [15]. Geographic targeting of rural or remote areas was mentioned in all papers; contractors are designated to provide service in certain areas that government services do not reach. Further solutions to overcome the distance of populations from government health services included use of mobile services [18].

Stated effects of the intervention

All papers reported an association between contracting and an increase in the use of health services by underserved or socially excluded populations. In Afghanistan, across all types of

contracts, more people surveyed attended health services at contracted health providers than other providers; some contracts appeared to have higher population utilization that others, and two types of contracts, including one that utilized community health workers, had higher odds of being utilized by a person living in poverty than the other types of contracts [15]. In Guatemala, India, and Malawi, rural areas served by contracted organizations saw an increase in use of health services associated with the start of the intervention [16-19]; in Guatemala, these results were statistically analyzed and found statistically significant for four priority health services but not for one priority health service [18].

Effect on improving financial protection

Assessing trends in out-of-pocket payments for health and the implementation of contracting in Malawi suggest an association with contracting and a decrease in out-of-pocket expenditures as a share of total expenditures, and reduced out-of-pocket expenditures (for the population as a whole but not specifically for underserved or socially excluded populations) [16].

Effect on health outcomes

No study included health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: None of the papers assessed health outcomes. All five papers included data on utilization of health services [15-19], and two included coverage or access to health services in target areas or among the target population [17, 18]. One study included out-of-pocket expenditures as an outcome [16].

Stated effects of the intervention: By providing health services in areas where people generally would have had long distances to travel to reach health services, the papers included in this study showed contracting provided geographic access to health services and people did use contracted health services across the programs. In the context of contracting being used to provide free services from existing facilities, contracting may also provide financial protection to the population.

Caveats/weaknesses of studies (as reported in the studies): The paper comparing different contracting mechanisms mentioned the possibility of selection bias when comparing results between the mechanisms [15]. Papers also questioned the sustainability of contracting as a means of providing services [15, 17, 18]. Further, as noted above, contracting involves principal-agent relationships, which are open to fraud [17], which may further elevate costs. However, rigorous monitoring of contractors is also potentially expensive and puts into question the affordability of contracting [18]. Contracting, then, is typically limited to areas where government has difficulty providing services (often to underserved or socially excluded populations) due to constraints on their operations, such as the ability to recruit and retain human resources for health, that NGOs are more able to overcome [16, 18, 19].

4.3 Government Buys or Subsidizes Insurance

Summary Information

Health financing category:	Government schemes
Name of intervention:	Government buys or subsidizes health insurance due to user fees
Other names used for intervention:	Centrally funded publicly subsidized health insurance program, government reimbursement of medical expenses, medical insurance for the poor, full state-subsidized medical insurance for the poor, government subsidy to purchase health insurance, medical financial assistance, medical insurance for the poor scheme using vouchers to enroll with private insurers, prepayment scheme allowing free primary care health insurance for the poor, public-private partnership for insurance
Number of studies included:	13 *[20-32]*
Countries included in the studies:	Georgia (5), Colombia (1), India (4), Indonesia (1), Ghana (1), China (1)
Underserved and socially excluded populations targeted in studies:	Poor, elderly, low-income, individuals with chronic and acute conditions, MDR-TB patients, rural, tribal, pregnant women, children under 5, women
Study design:	Experimental (RCT): 1 Quasi-Experimental: 11 Time series: 7 Regression discontinuity: 2 Cross-sectional: 2 Qualitative: 1

Description of the Intervention

In this intervention, the government buys or subsidizes insurance for selected groups in the population. This can be done through multiple means: the government pays the premiums for people to enroll in private or parastatal insurance schemes that provide, minimally, a specified benefit package. Insurance schemes run by lower levels of government may also be used. In some situations, private insurance companies compete for clients. Alternatively, the government may provide a general subsidy to insurance companies with a mandate to enroll targeted populations, but the insurance company can set premiums and similar payments to ensure that it can cover its costs. Finally, the government may set premium and / or copayment rates, and then subsidize schemes to maintain financial viability.

The government may buy insurance, pay premiums, or similar only for households designated as vulnerable, poor, or other underserved and socially excluded category [21, 22, 24-32]. Alternatively, the subsidized insurance may be offered to all people in selected geographic areas (e.g., in rural areas) [20, 23].

Summary of the Intervention Design

Seven unique schemes were assessed across the 13 papers, with assessments done at different times or on different aspects of the same scheme in Georgia [21, 22, 24, 25, 32], and two separate schemes assessed in India [26, 27, 29, 30]. Insurance carriers included private insurance companies [21, 22, 24-27, 29, 30, 32], a non-profit community scheme [20, 31], a for-profit parastatal scheme [28], and schemes operated by local governments [23]. The insurance companies were typically responsible for contracting and paying health service providers. Membership was voluntary in six schemes [20, 23, 26, 28, 29, 31], with one of these using 'enrollment camps' to encourage enrollment [26], and three of these having automatic registration [20, 28, 31]. In one scheme, all households determined in need were given a

voucher to purchase health insurance [21]. Households were used as the unit of enrollment in all schemes. Benefit packages were determined by the government; four included primary health care [20, 21, 28, 31] and all included referral or inpatient care. Some included limits to the amount of benefit [22, 29], and some had limited coverage of drugs [22]. Beneficiaries paid no premium in five schemes [20, 21, 28, 29, 31], and incurred no copayments in three schemes [20, 21, 29], but had premiums in one scheme [26], or incurred both premiums and copayments in one scheme [23].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: In all cases, providing free or heavily subsidized health insurance was seen as overcoming financial barriers to enrolling in health insurance.

Non-financial: Activities included having local government officials identify those eligible for enrollment [21, 28, 31], although papers noted that these processes often misidentified some people as eligible and missed some that were eligible [28, 31]. One paper mentioned that the intervention used 'enrollment camps' to overcome informational and administrative barriers to enrollment, and had staff at hospitals to answer enrollees' questions [29].

Stated effects of the intervention

One paper found households with lower wealth were more likely to join the scheme, although the result was not statistically significant for all age groups [31], another showed an increase of about 25 percentage points in the health insurance coverage among the poor [32], while the third paper found that, while targeting the poor, some people from the upper income brackets were enrolled [29]. One paper found that the scheme was successful in enrolling rural residents, but likelihood of enrollment decreased the farther an area was from district capitals [29].

Effect on improving access to health services

Intent of the intervention

Financial: In situations where health facilities charge user fees or copayments, free or subsidized insurance can increase access to health services by reducing or eliminating out-of-pocket point-of-care expenses [21-24, 26-31]. One study noted that limited coverage of drugs may have limited the financial accessibility to care for people with chronic diseases [24].

Non-financial: Four papers mentioned that low quality of care was a barrier to accessing health services but did not specify how this intervention would address this issue [20, 22, 23, 28]. One paper suggested that engaging with private insurance companies that contracted with private health facilities allowed enrollees to access higher-quality care at private health facilities [29].

Stated effects of the intervention

Two papers found that beneficiaries of government-paid or - subsidized insurance schemes were more likely to use formal health care services (inpatient or outpatient) than comparisons [20, 27]; in one case, this was found to be especially true for the poor [27]. One further paper found that beneficiaries of government-paid or - subsidized insurance schemes were more likely to use formal health care services than comparisons for some, but not all, services depending on the age and sex of the enrollees [31]. Four papers, all assessing the same scheme, did not find significant differences in utilization of health care services between members of government-paid or -subsidized insurance schemes and comparison groups [21, 24, 25, 32]. When looking in more detail, however, the results where there was no association between enrollment in government-paid or -subsidized insurance and utilization show that there was a shift in what services were utilized (away from pharmacies toward health centers) [21, 25], or

that enrollment in government-paid or -subsidized insurance was associated with greater utilization among people with chronic illnesses [24]. One paper noted that women were less likely than men to utilize health services once enrolled in government-paid or -subsidized insurance [30].

Effect on improving financial protection

Six of the eight papers that assessed financial protection found that enrollment in government-paid or -subsidized insurance is associated with better financial outcomes, whether it is lower out-of-pocket payments [21, 25, 26, 29, 32], lower per-visit costs [25, 32], or lower rates of catastrophic payments [28]. One paper did not find lower out-of-pocket payments [23], possibly due to the low level of government subsidy and subsequent financial benefits of the insurance, while another found no decrease in out-of-pocket payments in general, but did find a decrease for people with a chronic illness [24].

Effect on health outcomes

Two of the three papers looking at health outcomes did not find an association between participation and the measured health outcomes [20, 21].The third paper found mixed results among the elderly, with participation associated with higher cognitive function and lower hypertension in general and especially among the poor, although of marginal statistical significance; in most statistical models there was not an association with mortality [23].

Summary of results of Papers in the Review

Result measures used in the studies: Three papers assessed health outcomes, including fever episodes, anemia, and death [20], health behaviors and diagnoses with certain conditions [21], and self-reported and measured health outcomes [23]. Eight papers looked at the utilization of health services, including outpatient services [20, 24], inpatient services [27, 30], or both [21, 25, 31, 32]. One paper assessed the quality of care that members of the health insurance received [22], while another assessed perceived access to health care [23]. Eight papers assessed financial payments for accessing health care, including amount of out-of-pocket payments [21, 23-26, 29, 32], and catastrophic expenditures [28]. Three papers looked at factors associated with enrollment in the health insurance scheme [29, 31, 32].

Stated effects of the intervention: Three papers assessed coverage, and all found that government paid or subsidized insurance schemes did enroll the poor or target population, although there may be substantive enrollment from people not in the target groups. Of the four schemes assessed for utilization of health services, three found an increase in utilization; one scheme was not associated with increased utilization but may have shifted utilization among provider types and may also have affected utilization among people with chronic illnesses. Results suggest that government-paid or subsidized insurance schemes by and large provide some financial protection to at least some people in the target population. Results of two of three papers showed no association with health outcomes, with a third paper showing mixed results.

Caveats/weaknesses of studies (as reported in the studies): Across the papers, there was reported trouble finding comparison groups, and, while the various statistical techniques employed try to construct a comparison group similar to the treatment group, selection bias – notably those most in need of using health services will enroll in health insurance – remained an issue across the papers, with the exception of the one paper that was able to use randomized controls [20]. The paper with randomized control noted that results may be biased due to the introduction of other health programs at around the same time as the trial [20]. Assessment of health care-related expenditures was largely based on self-reports and may be subject to bias that might not be independent from the intervention, and conclusions about expenditures in

before-after studies are subject to assumptions about inflation. Some studies were of small scale or focused on a particular population, making generalizations to wider populations difficult [22, 28-30]. Misidentification of the poor or other target groups, whether by the program or by the study, is also a weakness.

4.4 Government Reimbursement of Medical Expenses

Summary Information

Health financing category:	Government schemes
Name of intervention:	Government reimbursement of medical expenses
Other names used for intervention:	Medical financial assistance schemes
Number of studies included:	3 *[33-35]*
Countries included in the studies:	China (2), India (1)
Underserved and socially excluded populations targeted in studies:	Disabled, pregnant women, rural poor, unemployed, urban poor
Study design:	Quasi-Experimental: 1 Cross-sectional: 1 Mixed methods: 1 Qualitative: 1

Description of the Intervention

Government reimbursement of medical expenses entail patients paying user fees at health facilities and then receiving funds from government bodies for some or all the expenses occurred by the patient.

Targeting of underserved and socially excluded populations as described in the papers found for this review include paying reimbursements in certain geographic areas (such as rural or poor districts) [33], allowing only certain populations (such as poor people) claim reimbursement for expenses [33-35], or allowing reimbursement claims for priority services (e.g., maternal health) [34].

Summary of the Intervention Design

Three different reimbursement schemes were included in the papers found for this review: one in rural China, one in urban China (Shanghai), and one in urban India (Odisha). All three schemes were government administered. The schemes differed in the following ways:

- In some interventions, reimbursement was based on predefined amounts for different services regardless of what the patient paid, while in other settings, patients submitted receipts of payment for reimbursement. Some schemes reimbursed only a set proportion of the submitted receipts. Repayment rates can also vary by location within a single scheme.
- Some interventions set up a predefined pool of money for paying reimbursements; when enough claims had been made to exhaust the fund, no more claims would be accepted until the next round of funding.
- Some interventions required a certain threshold of patient expenditure to have been reached before the patient would become eligible for reimbursement.
- Some interventions set ceilings on reimbursements that could be received by patients.
- Some interventions only covered inpatient care; others covered a broader range of health services.
- The processes for claiming reimbursements and verifying the accuracy of claims varied widely between schemes, with some schemes allowing patients to sign up at health facilities, while others required patients to submit claims through separate government

agencies.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Not applicable for this intervention.

Non-financial: For patients to utilize reimbursement schemes, they need to be aware that they exist [35]. One scheme helped to enable patients to access reimbursement by automatic enrollment upon attendance at a government health facility [34].

Stated effects of the intervention

One study found that 7.4 percent of respondents were aware of the reimbursement scheme [35]. A second found that 17 to 24 percent of eligible people had enrolled in the reimbursement scheme [33].

Effect on improving access to health services

Intent of the intervention

Financial: The primary intention of the scheme is to assure patients that accessing health care, and especially potentially or perceived expensive care, will not cause them financial ruin. The scheme's design assumes that patients will have enough resources to pay for health care upfront.

Non-financial: None of the papers included in this review discussed how reimbursement schemes could help alleviate non-financial barriers to accessing health care services.

Stated effects of the intervention

No results.

Effect on improving financial protection

One qualitative study found that due in part to rapid inflation of prices at hospitals, the reimbursement scheme was not adequate for most people, and they still felt that health care costs were a burden [35]. The second qualitative study reported reimbursements were helpful for some recipients, but not sufficient to provide financial protection against all illnesses [33]. The quantitative study found that the scheme benefited over 90 percent of respondents, with 28 percent incurring net positive out-of-pocket expenditures. While the reimbursements reduced out-of-pocket expenditure incidence (in net) and amount, 9 to 15 percent (depending on the threshold used) of respondents incurred a catastrophic expenditure for health. There were no statistically significant differences in the net amount of out-of-pocket expenditures by education, wealth, or caste [34].

Effect on health outcomes

No study included health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: Two studies assess people accessing and coverage of the reimbursement scheme [33, 35]. Two discussed the adequacy of financial protection in a qualitative manner [33, 35], while one assessed financial protection quantitatively [34].

Stated effects of the intervention: Two studies found limited uptake of the intervention and limited financial protection. The other paper found generally high utilization of reimbursements

among pregnant women living in slums and increased financial protection but found that some patients still risked catastrophic expenditures.

Caveats/weaknesses of studies (as reported in the studies): The studies from China evaluated the schemes early in their development and found low uptake, and as such low financial protection [33, 35]. In China, these reimbursement schemes evolved over time into fuller health insurance schemes. In India, where results were more positive than in China, the reimbursement scheme was coupled with other interventions, including a free medicine program and health insurance covering inpatient care, making disentangling the effects of one program from the others difficult [34]. None of the studies included any comparison groups or other estimation of what might have happened in the absence of the reimbursement scheme.

4.5 Performance-Based Financing

Summary Information

Health financing category:	Government schemes
Name of intervention:	Performance-based financing
Other names used for intervention:	Pay-for-performance incentives, results-based financing, performance payments
Number of studies included:	3 *[36-38]*
Countries included in the studies:	Argentina (1), Burkina Faso (1), Cambodia (1)
Underserved and socially excluded populations targeted in studies:	Children, poor women and children, pregnant women
Study design:	Quasi-Experimental: 3 Time series: 3

Description of the Intervention

Performance-based financing provides cash payments to health facilities (or other units, such as health districts) for the completion of performance target and/or services delivered. Some or part of the payment is contingent upon the achievement of a certain level of service or reaching certain targets. Often, the contingent payment is thought of as an incentive, and recipients are given broad autonomy as to how to use the incentives. When performance-based payment is based on services delivered ("fee-for-service" model), there is also often a quality component in the incentive payments.

In the performance-based financing schemes described in the papers included in this review, performance-based financing targets underserved and socially excluded populations primarily through selecting health services that are underutilized. For example, all three programs included antenatal care and institutional delivery, and thus target pregnant women. Further, by focusing the performance-based financing on government-run health services, performance-based financing schemes may, in some settings, target the uninsured or a relatively poorer population [36]. Further, because some performance-based financing schemes include targets to increase coverage, they then seek to increase access to health care for underserved populations. Uncovered/underserved populations may also correlate with socially excluded populations, but socially excluded populations are not specifically targeted in any of the programs described in the papers included in this review.

Summary of the Intervention Design

The three performance-based financing schemes included in this review targeted their payments to health facilities [37], to provinces [36], or to health districts or health facilities at various points in time [38]. All targeted government-run health service providers. The scheme in Argentina required people to enroll in the scheme; payments were made first based on

enrollment on a per-capita basis, and then additional per-capita payments were made if coverage targets (based on 10 indicators) were met [36]. Provinces then transferred money to health service providers [36]. In Burkina Faso, the central government established contracts with selected health facilities and paid facilities based on the number of services, adjusted for quality scores, that the health facilities provided [37]. The paper noted that some recommended practices for performance-based financing schemes were not implemented in the early phase evaluated in the paper, but that activities including incentives to patients, independent management of the scheme, increased facility autonomy, and efforts to improve management capacity at health facilities were added in later phases [37]. In Cambodia, performance-based financing happened in phases over time, with different phases having different characteristics:

- Some phases were run by NGOs, some by the government, and some jointly;
- At different times, payments were made on a capitation basis contingent on reaching certain targets or on a fee-for-services basis with or without bonuses for reaching targets [38].

The amount of the payments and incentives were often determined by NGOs or government and ranged widely from implementing agency to implementing agency and over time [38].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Not applicable in the papers included in this review.

Non-financial: In the case of Argentina, uninsured women were enrolled in the performance-based financing schemes; health service providers were responsible for enrolling eligible people in their service areas.

Stated effects of the intervention

No results.

Effect on improving access to health services

Intent of the intervention

Financial: Performance-based financing schemes included in this review did not, by themselves, address financial barriers to accessing care faced by patients, although performance-based financing schemes could potentially be used to reduce user fees if it provides greater financial resources to health facilities [37].

Non-financial: One reason listed for increasing access to care was through the provision of additional resources to health service providers so that health service providers could provide services at a higher quality, increase staff motivation, and reduce absenteeism [36-38]. Further, by providing extra money to health providers when they met certain targets, performance-based financing should incentive providers to develop means for overcoming barriers to accessing services within their service areas. The exact means of overcoming those barriers is often not prescribed within the performance-based financing schemes but left for health service providers to develop the method(s) most appropriate for their specific settings. However, methods often include outreach or social marketing of some kind [36, 37].

Stated effects of the intervention

Two papers found performance-based financing schemes associated with increased utilization across maternal and neonatal health services measured [36, 37], while one paper found positive but not statistically significant effects on two services (antenatal care and vaccination rates) [38]. While this last paper, set in Cambodia, did find facilities associated with a performance-based

financing schemes had a higher number of deliveries than comparison facilities, this may have been due to mothers switching facilities and not from a true increase in the coverage level of facility-based births [38]. The paper evaluating schemes in Cambodia was over a longer time, assessed multiple, often less structured, performance-based financing schemes than the other two papers. Further, results from the Cambodia paper suggest that giving explicit targets to health facilities and locally relevant management may improve performance-based financing scheme performance [38].

Effect on improving financial protection

No results.

Effect on health outcomes

One paper assessing health outcomes found the performance-based financing schemes was associated with increased average birthweight, lower proportion of babies born underweight, and reduced neonatal mortality [36]. The other paper assessing health outcomes did not find an association with neonatal mortality, with results suggesting no effect [38].

Results of Papers in the Review

Result measures used in the studies: Two papers included measures of health outcomes [36, 38]. All three papers used health services utilization as an outcome indicator, covering multiple health services [36-38]. One paper included quality of services as an outcome [36].

Stated effects of the intervention:

None of the papers provided any subpopulation analyses looking at the effects of the interventions on different segments of the population.

Caveats/weaknesses of studies (as reported in the studies): All three papers used some form of a difference-in-difference analysis subject to selection bias. Further, the paper in Cambodia reported that funding for health in general increased over the time of the analysis and teasing out the effects of the performance-based financing schemes against the overall increase in funding is difficult [38]. Further, since part of performance-based financing schemes' tasks are to improve reporting of data and the quality of data reporting, there may be measurement error associated with the intervention that influences results reported [37, 38]. The Cambodia paper also pointed out the performance-based financing schemes involve a degree of costs for management and monitoring of services, quality, and outcomes, and the cost-effectiveness of these added programmatic costs versus simply increasing the amount of resources received by health facilities, needs to be established [38]. As noted above, the papers were not able to assess whether reported positive results were disproportionately captured by, for example, more wealthy people in the population [37].

4.6 Prepayment for Defined Services

Summary Information

Health financing category:	Government schemes
Name of intervention:	Prepayment for defined health care services
Other names used for intervention:	Risk insurance
Number of studies included:	1 [39]
Countries included in the studies	Mauritania (1)
Underserved and socially excluded populations targeted in studies:	Pregnant women
Study design:	Quasi-Experimental: 1 Cross-sectional: 1

Description of the Intervention

Prepayment allows patients to pay for a sequence of health care services in advance, usually at the start of treatment. Prepayment offers a discount to the patient compared to paying for each service separately. While prepayment involves agreeing up front to pay a set rate for a given set of services, the actual schedule of paying the fee can be spread over time. Prepayment also requires clear definition of exactly what services will be included in the scheme.

In the one instance found for this review, prepayment targeted underserved and socially excluded populations through allowing for prepayment of a package of services (antenatal and delivery services) that were needed by an underserved population.

Summary of the Intervention Design

Only one paper was found with results from a prepayment scheme, which was for antenatal and delivery services. Within this one scheme, variations include: (a) the prepayment amount varied in different parts of the country; (b) in some parts of the country, prepayment was required in full, while in other areas, two separate payments could be made, and (c) the prepayment initiative was accompanied by increasing drug stocks, equipment purchases, and training of health staff to ensure that they could actually deliver the package that patients were paying for.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The paper found for this review did not include any methods to address financial barriers to enrolling in the prepayment scheme; for example, all women had to pay the same amount for the prepayment scheme regardless of socio-economic or other status.

Non-financial: Reasons listed in the one paper found for patients not enrolling in the prepayment scheme included lack of awareness of the scheme, distance to a health facility, and lack of understanding of the scheme, including the benefit package. The authors of the paper further suggest that health facility staff may not be the best way to communicate information about the prepayment scheme to the public, and further communication about the package may be needed.

Stated effects of the intervention

The paper found that about 37% of eligible women had enrolled in the prepayment scheme, although less wealthy women were less likely to enroll than wealthier women.

Effect on improving access to health services

Intent of the intervention

Financial: This intervention addresses user fees as a financial barrier to accessing health services in two potential ways. First, prepayment schemes are potentially less or less expensive for patients than what they would otherwise pay for the services. Second, they serve to make patients' payment for services predictable, and ensure that patients will not face "excessive payments," which may serve as a barrier to seeking care [39].

Non-financial: When accompanied by specific efforts to ensure that health service providers will be able to provide the package listed in the prepayment agreement, prepayment schemes can also improve the quality, and patient perceived quality, of care.

Stated effects of the intervention

Women enrolled in the prepayment scheme were more likely to have four or more antenatal care visits and were more likely to see a midwife (but less likely to see a doctor) and were more

likely to receive an ultrasound and lab tests (all p<0.001). Women enrolled in the scheme were also more likely to give birth at a facility with qualified health staff (p<0.001) but there was no difference in the c-section rate or postnatal care.

Effect on improving financial protection

No results.

Effect on health outcomes

Neonatal mortality was lower among women enrolled in the scheme compared to other women, but the difference was not statistically significant.

Summary of results of Papers in the Review

Result measures used in the studies: The paper included maternal health-related health service utilization and neonatal mortality as the primary outcomes.

Stated effects of the intervention: The paper found that women enrolled in the prepayment scheme were more likely to receive many, but not all, maternal health services, but did not find an effect on neonatal mortality.

Caveats/weaknesses of studies (as reported in the studies): As a quasi-experimental study, the women enrolled in the prepayment scheme and those not enrolled may be systematically different, and, despite statistical matching, selection bias may affect the results (e.g., those more likely to use all services may be more likely to enroll in the prepayment scheme). The paper also did not assess whether the prepayment scheme affected any subpopulation of pregnant women more than others.

4.7 Removal of User Fees

Summary Information

Health financing category:	Government schemes
Name of intervention:	Removal of health service user fees for targeted populations
Other names used for intervention:	Abolishing user fees, adequate coverage of health services, equity fund scheme, expansion of disease-specific treatment financial risk protection, fee waiver program, financial protection, free care, free health care scheme, free medical assistance for the poor, free provision of care at government facilities, subsidized health program, subsidized user fees, targeted price subsidy program, user fee exemptions
Number of studies included:	26 [40-65]
Countries included in the studies:	Armenia (2), Burkina Faso (1), Ecuador (1), Ethiopia (1), Ghana (1), Guinea (1), India (2), Indonesia (2), Madagascar (2), Kenya (1), Laos (1), Malawi (1), Nepal (1), Nigeria (1), Peru (1), Sierra Leone (1), Sri Lanka (1), Tanzania (1), Tunisia (1), Vietnam (1), Zambia (2)
Underserved and socially excluded populations targeted in studies:	Children under 5, children under 6, indigenous communities, indigents, lactating mothers, non-poor who need help meeting the cost of extraordinary care, people living with HIV, people living with HIV/AIDS, poor, pregnant women, seasonal poor, urban poor, vulnerable children.
Study design:	Quasi-Experimental: 15 Time series: 10 Cross-sectional: 4 Other quasi-experimental: 1 Qualitative: 8 (case study), 3 (interviews)

Description of the Intervention

In contrast to a general removal of user fees at health service providers, papers included in this review assessed removing user fees for targeted groups. Various means were used to target underserved and socially excluded populations, including removing user fees for:

- People of a certain age (typically children) [40, 56, 60, 63, 65];
- People identified as poor [41-43, 45, 51, 52, 54, 55, 57-59, 62];
- Specific services (such as maternal health or HIV/AIDS services) [44, 47, 48, 53, 56, 61, 64, 65];
- Certain geographic areas (e.g., rural areas or areas with a high proportion of minority populations) [46, 49, 50].

Combinations of the above categories are also possible [56, 65].

Summary of the Intervention Design

Most of the schemes were government designed and run for user fee exemptions at public health facilities [43, 46, 48-51, 53-65]. In some cases, user fee exemptions were extended to mission-run or private health facilities [47, 64]. Further, in some cases, reimbursement to facilities was handled by an NGO and in some cases donor funds helped to support the fee waiver program [43, 53, 64].

Targeted user fee exemptions require multiple design decisions. First, a decision needs to be made about how (or if) to replace the funds that would have been generated by user fees and to ensure that health service providers have the resources to deliver health services to people who are exempt from paying fees. Some user fee exemption schemes were accompanied by interventions to strengthen the ability and resources of health service providers to delivery service [49, 50, 65]. Sources of financing were also secured by earmarking funds from specific source to be used by local governments or health service providers [54, 63]. Some schemes paid health service providers based on the number of services provided, based on a set reimbursement amount [43, 44, 53, 63, 64]. Some schemes relied on other user fees to cross-subsidize exemptions and/or set up revolving funds at local levels to help ensure sufficient funds to cover exemptions [51, 56].

Further, schemes differed in identifying beneficiaries of the exemptions (except for cases where specific services or geographic areas were exempted from user fees), with some schemes allowing health service providers to identify recipients and provide waivers and others requiring some form of identification or enrollment [45-48, 55-60, 63]. Some user fee exemptions included payments to patients to cover costs of transport to health service providers or other incidental expenses associated with seeking care [44, 50, 53].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Full user fee exemptions should allow targeted populations make use of health services without facing financial barriers, although cost for transport and other incidental costs may prohibit people from accessing user fee exemptions. Partial exemptions may pose some financial constraints to some people.

Non-financial: Multiple non-financial barriers may prevent people from accessing user fee exemptions. These are typically the same non-financial barriers that prevent people from accessing health care in general. For example, in cases where some sort of enrollment is needed, leakage or under-enrollment of the target population in the registration processes may limit access to care [43, 54, 55, 57, 63]; if identification is done by health center staff, patients

may need to be aware of their eligibility [51] and registration may not be uniform across health service providers [54, 55, 57]. Removing user fees may not enable people to access the free or reduced price services if people believe that the services are of low quality or, if poorly resourced health service providers do not have the resources to handle increased demand due to exemptions, some people may not avail themselves of the free user fees [41, 54]. In some cases, user fees exemptions were, as noted above, accompanied by efforts to ensure quality of care [49, 50, 65] or include non-public providers [47, 64]. Long travel distances (independently from the cost of transport) may also serve to prevent people from accessing user fee exemptions [47, 53, 65]. Lack of trust, cultural or linguistic barriers, stigma, discrimination, etc. may all also prevent people from accessing user fee exemptions [50, 53, 65].

Stated effects of the intervention

One study found that only 40 percent of the poor (target population) had enrolled in the scheme [43], while another found that 94 percent of the target population had enrolled [44]. Another paper indicated previous studies had shown low enrollment of the target population [51].

Effect on improving access to health services

Intent of the intervention

Financial: User fee exemptions enable access to health services by removing or limiting financial barriers posed by user fees. As noted above, in some cases user fee exemptions included efforts to remove financial barriers posed by transport or other costs associated with care [44, 50, 53].

Non-financial: Removal of user fees does not directly address non-financial aspects of accessing health care.

Stated effects of the intervention

Six of nine quantitative studies found exemptions associated with greater use of health services [42, 46, 49, 54, 60, 63]. One study indicated that utilization of some, but not all, service likely increased due to exemptions [65]. One study, in the context of financial crises and an overall decrease in the use of health services, had inconclusive results on the association between exemptions and utilization, although likely there was little effect [45]. Another found an increase in utilization of services among the second poorest wealth quintile, but not the targeted poorest wealth quintile [53]. Two qualitative studies found respondents reported the exemption increased access to health services, especially for the poor [41, 64], while another reported limited use of services among the targeted minority population [50].

Effect on improving financial protection

Five of six studies showed a decreased likelihood of the targeted population paying anything [40, 52, 55, 57, 59]. However, two of these studied indicated that a substantial proportion of the target population still paid user fees (although this was a lower proportion compared to other populations) [55, 57]. One paper assessing partial exemptions did not find a decreased likelihood of the targeted population paying anything [58].

Five of seven studies showed a decreased average expenditure per visit for the targeted population [40, 42, 44, 55, 58]. One paper assessing a program with weak targeting found no differences in the amount paid per visit among the target population versus the non-target population [56]. One study found a decrease in the amount paid for inpatient care, but an increase in the amount paid for outpatient care [57].

Three of six studies showed a decrease in total health expenditures for targeted population [47, 60, 62]. One study found that the exemptions were poorly targeted and thus did not affect health

expenditures in the target population [53]. Another study with partial user fees exemption indicated the possibility that increased utilization offset decreased user fees [54].

Two of four studies showed a decrease in catastrophic health expenditures for targeted populations [47, 60]. One study found that free antiretroviral therapy did not decrease the incidence of catastrophic expenditures [48]. Another study found that the exemptions were poorly targeted and thus did not affect catastrophic expenditures in the target population [53]. A final study which did not directly assess out-of-pocket payments presented evidence suggesting little association between user fee exemptions on overall out-of-pocket payments [65].

One qualitative study indicated that respondents found that user fee exemptions made services more affordable [41], while another qualitative study reported that respondents indicated that the exemptions provided no financial protection [51].

Effect on health outcomes

The three studies assessing health outcomes reported positive outcomes. One study found fewer reported sick days among the target population [60]. One study reported little change in morbidity (prevalence of selected diseases and conditions), but a decrease in child mortality in general but especially after the start of the user fee exemptions [65]. One study, using modelled results, indicated lower mortality as well [61].

Summary of results of Papers in the Review

Result measures used in the studies: Two papers assess participation in the fee exemption scheme using surveys to assess use of the fee exemption among the target population [43, 44]. Eighteen papers included some measure of financial protection as an outcome indicator [40-42, 44, 47, 48, 51-60, 62, 65]. Twelve assessed utilization of health services [41, 42, 45, 46, 49, 50, 53, 54, 60, 63-65], and three included health outcomes in their assessments [60, 61, 65].

Stated effects of the intervention: As noted above and found below, user fee exemption schemes may suffer from leakage (non-targeted populations making use of the user fees) or under-coverage (people in the target population not enrolling or taking benefit of the exemption scheme); however, some schemes did reach high enrollment or utilization among the target population. Nine of 12 papers found that fee exemptions increased at least some aspects of health services usage, but the three exceptions indicate that this is not an "automatic outcome." The three papers assessing health outcomes reported favorable associations between user fee exemptions and health outcomes. Studies suggest that targeted user fee exemptions lower the likelihood of target populations making direct payments for services and/or lower the amount paid per visit in many cases but not universally across schemes. About half of studies assessing total out-of-pocket expenditures or catastrophic health expenditures found targeted user fee exemptions had a favorable impact on these indicators. Overall, 12 of 18 papers assessing financial protection showed at least some positive association between user fee exemptions and improved financial protection indicators.

Caveats/weaknesses of studies (as reported in the studies): Targeted user fee exemptions, as compared to general user fee exemptions, involves more details about identification of eligible people, and as there are more details, this provides more programmatic aspects that could suffer from poor implementation [51, 55, 57]. Firstly, the targeting of the population may suffer from leakages or under-coverage, as noted above [43, 54, 55, 57, 63]. Exemptions may target less expensive aspects of services, exclude important cost components such as medicines, or otherwise not provide true financial protection [42, 58]. [42, 58]. Overall poor quality of service may mean that people are not willing to attend the health care provider even when it is free or low price [50, 53].

The papers themselves are limited by being quasi-experimental designs, including difficulty in identifying a population that is comparable to the targeted population [55-59, 65]. Those studies with surveys may suffer from recall bias and inexact measures as reported by households.

4.8 Vouchers

Summary Information

Health financing category:	Government scheme
Name of intervention:	Vouchers to purchase health care services
Other names used for intervention:	Conditional cash transfer with defined benefits, health care voucher, service voucher
Number of studies included:	2 [66, 67]
Countries included in the studies:	Cambodia (1), Kenya (1)
Underserved and socially excluded populations targeted in studies:	poor, poor women, pregnant women
Study design:	Quasi-Experimental: 2 Time series: 2 Qualitative: 1

Description of the Intervention

Vouchers are, in effect, coupons that entitle people using them to receive specified health services for free or for a set, predetermined price. As such, vouchers serve as user fee waivers or fee reducers [67].

In the papers included in this review, vouchers target underserved and socially excluded populations by covering selected underutilized services (e.g., pregnancy, delivery, and postnatal-related care or family planning services). Vouchers can also be distributed to target populations [67]; for example, only people classified as poor may receive vouchers, or vouchers may be available for purchase (at a subsidized price) by the general population but be given free to certain targeted populations [66].

Summary of the Intervention Design

Voucher programs can be run by governments, non-governmental agencies, and international non-governmental agencies. For vouchers to work, agreement, typically formal, need to be reached with health service providers for them to accept vouchers in lieu of payment or full payment of user fees. Thus, decisions need to be made about what types of service providers to include in the voucher scheme (e.g., whether to include both public and private or only one type of provider).

Voucher schemes usually further involve reaching agreement with health service providers on the amount(s) that facilities will receive for redeeming vouchers, methods and timing for redeeming vouchers, or, even, whether vouchers entitle the user to a reimbursement for user fees paid, rather than the voucher program paying funds to health facilities. Mechanisms may also be needed to ensure that services are delivered as agreed upon and that services are provided at sufficient quality [66]. In both papers included in this review, health service providers did receive financial compensation for redeeming vouchers.

The extent and scope of services included in vouchers needs to be determined, agreed upon with service providers, and communicated to voucher beneficiaries. The purchase price of vouchers [66] and/or the method for targeting populations need to be established, and then the method for selling and/or distributing vouchers to the targeted populations are also important.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: In Kenya, different prices were established for different types of vouchers, and poor populations were exempted from paying for vouchers [66]; in some areas of Cambodia, vouchers also targeted the poor populations [67].

Non-financial: Both schemes included in this review used community-based agents to distribute vouchers. The paper assessing the voucher scheme in Kenya noted that there was variation in uptake of vouchers in different areas but means of overcoming barriers were not assessed [66]. Further, there may be a need to encourage people to use vouchers after they have received them [66].

Stated effects of the intervention

The paper assessing vouchers schemes in Kenya found that the number of maternal health vouchers distributed exceeded targets across regions; subsequent use of vouchers exceeded targeted sales in three of five regions, and met targeted sales in the other two regions. Vouchers for family planning services, however, were less than sales targets [66].

Effect on improving access to health services

Intent of the intervention

Financial: Vouchers remove financial barriers to accessing health services by removing, reducing, or making predictable the user fees for the services included in the vouchers. Vouchers for transportation, another potential financial barrier to accessing health services, are covered in Section 7.4.

Non-financial: Vouchers, in theory, give people a choice in where they receive services. Thus, users of health services, with financial barriers removed or made the same across different providers, will select providers with better-quality services, and incentive providers overall to improve the quality of their services to attract patients [66]. By gaining access to providers with better [perceived] quality, patients may be more willing to access services. In some cases, vouchers may provide health service providers with more money (or more predictable revenue) than previous user fees [66]. Further, providers may only be reimbursed for vouchers if a certain threshold number of services have been provided, thus incentivizing health service providers to encourage patients to return for the full package of services [67]. Finally, the vouchers themselves may serve as a method for educating recipients on their need to receive health care, and the increased knowledge may spur them to seek health care [67].

Stated effects of the intervention

One paper found an increase in assessed health service utilization associated with the voucher program [66]. The other paper found that vouchers increased use of delivery services, especially among the poor, and increased use of postnatal care but only for the non-poor [67]. Universal distribution (targeting the entire population) was associated with an increased use of antenatal care, but vouchers targeting the poor and voucher schemes overall were not associated with changes in utilization of antenatal care [67].

Effect on improving financial protection

No results.

Effect on health outcomes

No results.

Summary of results of Papers in the Review

Result measures used in the studies: One paper looked at distribution and the rate of use of vouchers [66]; both papers looked at the utilization of health services.

Stated effects of the intervention: The papers found in this review found that vouchers were associated with increased use of at least some health services; these results are in keeping with previous reviews of voucher programs [68, 69].

Caveats/weaknesses of studies (as reported in the studies): The paper assessing vouchers in Kenya assesses early implementation of the voucher scheme and may not reflect longer term trends in the effectiveness of vouchers [66]. The paper assessing vouchers in Cambodia was done after vouchers were implemented for a longer period of time, but the results are also potentially confounded by other contemporary health programs [67].

5. Social Health Insurance

This section describes results for 10 different broad interventions or activities to help SHI systems reach underserved and socially excluded populations.

5.1 Alternative Means of Paying Premium

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Alternative means of paying insurance premium
Other names used for intervention:	Payment of insurance premium in kind rather than cash, premium exemption, premium subsidy
Number of studies included:	2 *[70, 71]*
Countries included in the studies:	China (1), Indonesia (1), Mexico (1), Nicaragua (1), Philippines (1), Rwanda (1), South Korea (1), Vietnam (1)
Underserved and socially excluded populations targeted in studies:	Non-poor informal sector, people living below poverty line (specifically garbage collectors)
Study design:	Qualitative: 2

Description of the Intervention

Some insurance programs allow enrollees to pay their premium through means other than automatic payroll deductions or by using entirely non-monetary contributions, thereby increasing access to health insurance coverage. Programs using in-kind contributions can be micro health insurance schemes run by NGOs and operate on a system whereby the in-kind contributions fund the health care services used by enrollees. Other programs tend to be national health insurance schemes that build flexibility into payment schedules and payment collection methods.

These programs tend to target people living below the poverty line and informal sector workers. People living below the poverty line may be entirely unable to afford an insurance premium payment, even that of nationally subsidized insurance. Informal sector workers may be excluded from other social insurance programs based on income but lack employer-subsidized insurance.

Summary of the Intervention Design

Two papers in this review describe programs with alternative means of paying premiums. One describes a micro health insurance scheme established by an NGO in Indonesia that uses garbage as a financial resource for program participants. Participants collect garbage to drop off

at local collection sites in exchange for a card that guarantees them free access to a medical clinic and a variety of high-quality services [70].

The other paper in this review describes methods SHI programs have used to tailor programs to non-poor informal sector workers who are not able to make premium payments in the typical fashion. The program in the Philippines has partnered with banks and money transfer companies to facilitate premium payments; South Korea allowed households to pay on a monthly or quarterly basis and they can apply for waivers for late payments; Mexico has waived premium payments altogether; Vietnam has worked with local commune governments to collect payments in-person; and China provided subsidies to provinces that reached high enrollment [71].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The authors of the paper from Indonesia note that micro insurance programs often come with questions about financial sustainability due to the program design's inherent dependence on maintaining suitable enrollment and potential for moral hazard. They suggest improving the benefits package by partnering with the national health insurance scheme as a means to maintain financial sustainability [70].

Non-financial: In low-resource settings, paying a premium may be perceived as wasteful as one is paying for future care that might be unnecessary, and regular collection of payments can be difficult due to factors such as income fluctuations. Having alternative means to pay insurance premiums may change attitudes regarding enrollment, namely the idea that paying for insurance constitutes an inherent financial loss (since one may not even need or use the health services paid for) [70]. The review article noted that to be effective in engaging non-poor informal sector workers, communication and education on the available options for health coverage, including alternative ways of paying premiums, are essential. Additionally, because informal sector workers may be difficult to reach, programs used locations such as post offices, local kiosks, or town halls, which improved payments and enrollment [71].

Stated effects of the intervention

Use of an alternative means of paying for health insurance (in this case results of garbage picking activities) indicate that about 2,000 people made use of the system in one city (the article did not specify the size of the targeted population) [70]. The review notes that countries that utilized government paid premiums for the informal sector have higher enrollment in health insurance in the informal sector than other countries. However, use of mobile money was seen as successful in Kenya, but uptake in the use of mobile air time as payment in the Philippines was low [71].

Effect on improving access to health services

Intent of the intervention

Financial: The program in Indonesia provides access to health services (clinic visits) in exchange for in-kind contributions rather than for money, removing a substantial financial barrier to accessing care [70]. The many programs described in the review article seek to make premium payments more financially feasible for informal sector workers, including by offering flexible payment schedules and determining the premium rate based on income [71].

Non-financial: Neither of the papers reviewed described non-financial barriers to accessing health services.

Stated effects of the intervention

No results.

Effect on improving financial protection

No results.

Effect on health outcomes

No results.

Summary of results of Papers in the Review

Result measures used in the studies: The paper from Indonesia provided a program descriptive results of enrollment [70]. The review article summarized conclusions based on several programs seeking to reach the informal sector. Conclusions broadly relevant to the topic of alternative means for paying premiums include that health insurance schemes use a variety of mechanism and strategies to identify, enroll, and collect payments from the non-poor informal sector and that communication and education efforts are essential to spread awareness about available options for health coverage [71].

Stated effects of the intervention: As described above, the effect of alternate means of paying premiums on improving enrollment into/accessing social health protection is mixed.

Caveats/weaknesses of studies (as reported in the studies): Neither of the papers in this review described limitations in their methodologies.

5.2 Alternative Ways of Paying Co-Payments if Out-of-Network

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Alternative ways of beneficiaries paying co-payments if out of primary network
Other names used for intervention:	On-the-spot bill settlement system
Number of studies included:	1 *[72]*
Countries included in the studies:	China (1)
Underserved and socially excluded populations targeted in studies:	Internal migrants
Study design:	Quasi-Experimental: 1 Cross-sectional: 1

Description of the Intervention

In contexts where people must seek health care outside of an SHI scheme's network, it may be necessary to identify alternative mechanisms to cover co-payments for out-of-network care.

There was only one instance of this intervention identified in the literature review, and it came from China. In China, coverage under the SHI system is based on the location of household registration. However, this has become problematic as internal migration has increased due to increased demand for workers in urban areas. In China, on-the-spot settlements of medical bills emerged in 2014 as a way for internal migrants to obtain health care outside of their SHI fund's area of geographic coverage, without having to switch SHI funds. The article does not provide details about the on-the-spot settlement system.

Summary of the Intervention Design

One alternative way to pay copayments out-of-network was found by this review [72]. The paper, which considered China's on-the-spot settlement system for the location-based SHI funds, did not provide details on the intervention design.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Despite having the ability to enroll in a local SHI scheme outside of their official residence, many internal migrants face barriers to doing so. Financial barriers to enrolling in local schemes include high financial costs of changing SHI schemes. Furthermore, in more developed regions, it is commonplace to have a separate social welfare system for internal migrants with benefits that do not match those offered to official residents, thereby leaving the internal migrants financially vulnerable and with suboptimal health benefits. Conversely, if internal migrants do not switch to a local SHI scheme, they face financial barriers, described in the section above, that are associated with accessing out-of-network benefits [72]. Also per above, presumably on-the-spot payments addressed these issues.

Non-financial: Internal migrants face many non-financial barriers to enroll in local SHI schemes. According to Yao et al., reasons for low enrollment include policy unawareness, fragmentation of insurance schemes, low anticipated need for health care, job insecurity, and high population mobility [72].

Stated effects of the intervention

No results.

Effect on improving access to health services

Intent of the intervention

Financial: Internal migrants face financial barriers to accessing health services that stem from the lack of or low financial compensation for health care under their household registration-based SHI scheme when they move outside of their registered location. Furthermore, obtaining financial reimbursements for services received by providers that are not contracted with an individual's SHI fund typically requires significant amounts of paperwork. If an individual obtains services from a non-contracted provider, the out-of-pocket payments for out-of-network services are typically higher than those for local contracted providers [72]. Presumably, the on-the-spot settlements address these challenges by mitigating the financial burden for out-of-network services under China's SHI system, but the mechanism is not well described by the paper so details such as who is settling on-the-spot are unknown.

Non-financial: Internal migrants face numerous non-financial barriers to accessing health services at all, but especially when they are living outside of their official residence. Internal migrants may have low health literacy (especially an understanding of the health system in the new place of residence) and a lack of access to the local welfare system. When living outside of their official residence, internal migrants are more likely to abandon health services [72]. Again, presumably, on-the-spot settlements address these challenges by making it easier for internal migrants to navigate out-of-network SHI rules and benefits.

Stated effects of the intervention

The one paper found for this intervention type reported that locally enrolled internal migrants were more likely than those enrolled outside of their residential location to visit a physician when needed, and to have a health record (which was used as a proxy for utilization of preventive care). The gap between utilization for locally enrolled and non-locally enrolled internal migrants was greater among rural-to-urban migrants than among urban-to-urban migrants [72].

Effect on improving financial protection

No results.

Effect on health outcomes

No results.

Summary of results of Papers in the Review

Result measures used in the studies: The paper estimated the effect of the intervention on health services utilization. Indicators were calculated to measure access to medical services (visits to physicians when needed) and access to preventive care (registration for essential public health services).

Stated effects of the intervention: The one paper about this intervention compared health service utilization between internal migrants who had local SHI coverage and those who did not (e.g., those who were enrolled in a non-local SHI scheme associated with their official residence). The paper found that enrolling in a local SHI scheme increased the likelihood that internal migrants utilized health services, compared with those enrolled outside of their residential location [72].

Caveats/weaknesses of studies (as reported in the studies): The paper noted that due to the study's cross-sectional design, it is not possible to assume any causal relationships. Furthermore, there is the potential for selection bias on the effect of local health insurance: individuals who are more likely to use health services in the first place are more likely to enroll in a local SHI scheme [72].

5.3 Change Benefit Package

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Changes to insurance benefit packages to increase health care access to enrolled populations and/or encourage people in target populations to enroll in health insurance
Other names used for intervention:	Expanding benefits, supplementary benefit package
Number of studies included:	14 *[6, 73-85]*
Countries included in the studies:	Cambodia (1), China (9), Colombia (1), Georgia (1), Philippines (2)
Underserved and socially excluded populations targeted in studies:	Children, children under 5, children who were hospitalized due to pneumonia or diarrhea, elderly, household members older than 65, indigent, poor, poor rural households, retirees, rural, rural floating elderly, pregnant women, vulnerable
Study design:	Experimental (RCT): 1 Quasi-Experimental: 13 Time series: 1 Regression discontinuity: 1 Cross-sectional: 11

Description of the Intervention

How the population perceives the benefits of SHI can influence decisions about whether to enroll and whether to seek care for a particular issue. SHI schemes can change their benefit packages with the aim of increasing coverage for underserved or socially excluded populations by making the insurance more relevant for a particular group of people, or with the intention of increasing the use of health services and / or financial protection for a particular population.

Changes to the benefit package can include expanding the packages to include certain types of services (for example, inpatient or outpatient care) [6, 75, 76, 81, 84], and / or certain identified diseases or services [73, 78, 80, 82, 84], but may also involve raising or eliminating the benefit ceiling [74, 79, 85].

Targeting can be done at the scheme level – for example, a scheme may cover rural areas or a specific population, and the benefit package change is to increase enrollment or access to health services in the targeted scheme. In other cases, changes may be at the scheme level to target a certain population – for example, increasing benefits coverage for children to enable children to have better access to health services [80]. Raising benefit ceilings may target people with certain conditions, such as chronic diseases, to further enable them to have better access to health services [81].

Summary of the Intervention Design

Of the 14 papers identified for this literature review, nine describe government-run SHI schemes in China [74, 75, 77-79, 81, 83-85]. In China, there are three schemes targeted at different population groups (urban employed, urban not employed, and rural areas), each of which have different benefit packages in terms of services covered and benefit ceilings. Further, local governments (e.g., provinces and counties) have historically had some ability to influence the benefit packages within the larger schemes for their own settings. These papers, along with the paper from Cambodia [6], assess including both inpatient and outpatient care in the benefit package for only one type of care or assess differences in the benefits ceiling. Papers from other countries assess expanding the benefit package to include more services. Two papers described a policy intervention in the Philippines with three different intervention arms including one that expands the benefit package for children under 5 years of age [80, 82]. In Colombia, a health insurance reform law entitled citizens to one of two different schemes with different benefit packages [73]. The paper from Georgia assessed changing the SHI program targeting the poor to include supplementary benefits for surgeries and inpatient services with no copayment or deductible [76].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: In Cambodia, non-poor citizens may purchase the country's SHI for a small membership fee, which allows these participants to access health insurance that is affordable compared to private options [6]. Additionally, many papers studying insurance schemes in China argue that insurance premiums represent a financial barrier to enrolling in social health protection among the poor, those who perceive themselves to be healthy, etc. [75, 77, 79, 81, 85].

Non-financial: In Cambodia, allowing the non-poor to enroll in SHI for a small fee de-stigmatizes use of the SHI ID cards at health facilities. This rebranding of SHI as a program for everyone, and not just the poor, encourages more people to enroll [6].

Stated effects of the intervention

One paper from China found that the insurance scheme with a better benefit package had higher enrollment among the poor than the scheme with a smaller benefit package [78], although it noted that the scheme with better benefits was also located in urban areas.

Effect on improving access to health services

Intent of the intervention

Financial: All of these interventions involve provision of health insurance which can be used to pay for health services [6, 73-85]. The social insurance schemes described here, even those within a single country, provide varying levels of coverage and therefore address financial barriers to accessing health services to different degrees - expanding benefit packages alleviate financial barriers to accessing care for the newly covered services or due to beneficiaries' ability to make more claims under a higher ceiling.

Non-financial: The study in the Philippines found many non-financial barriers to accessing health services among the insured including lack of knowledge about program benefits and difficulty of filing a claim. However, they found that these barriers became less prominent over time through increased community presence of the program [80].In Colombia, differences in administrative procedures between insurance schemes associated with the different allowable benefits, including pre-approval for screening test, fragmented contracting, and confusion as to what services were covered, may affect the services providers offer to patients [73].

Stated effects of the intervention

In general, more generous benefit packages were associated with higher utilization of health services [6, 73-76, 84]. The one exception found no differences in utilization among migrant elderly populations between insurance schemes with different benefit packages but did note that the elderly who could seek care without paying 'out-of-network' fees were more likely to access health services [74]. In Colombia, pregnant women enrolled in the insurance package with better benefits were more likely to receive an HIV test than women in the insurance scheme with fewer benefits, even though both schemes covered HIV testing for pregnant women; the authors speculate that limiting benefits may confuse providers as to what services are covered and cause them to not offer services even when they are covered [73].

Effect on improving financial protection

In general, expanded benefit packages were also associated with better financial protection, whether measured with out-of-pocket payments [6, 82, 85], catastrophic health expenditures [77, 79, 81], or patients claims rate [80]. The paper from Cambodia comparing three configurations of SHI found that the extended plan, which offers insurance to non-poor households for a membership fee, was associated with the lowest overall cost including out-of-pocket expenses and indirect costs (results were combined for the poor and non-poor). Those with the comprehensive plan for the poor also had relatively low out-of-pocket expenses, with the highest out-of-pocket costs being associated with scheme covering only hospital visits [6]. In the Philippines, an expanded benefit package was associated with lower out-of-pocket payments for children, but not as much as increasing payments to providers [82]. One study found that people enrolled in the insurance scheme with the most comprehensive benefit package (who also lived in urban areas) also had the highest out of pocket health expenditure, along with higher health service utilization [84].

Effect on health outcomes

Only one paper assessed health outcomes, analyzing self-reported health status, physical functions, and psychological wellbeing between older adult participants in the China's three health insurance schemes. They found that participants in the urban employees' scheme, with the most comprehensive benefit package, had better outcomes in all health domains than participants in the rural or urban non-employee scheme and those without insurance. Overall, participation in the urban employees' plan was the most important factor to predict good health [79].

Summary of results of Papers in the Review

Result measures used in the studies: Results measures in these studies included health service utilization [6, 73-76, 83, 84], protection from out-of-pocket costs and catastrophic health expenditure [6, 77, 79-82, 84, 85], enrollment in SHI [78], and self-reported health, physical condition, and psychological wellbeing [79].

Stated effects of the intervention: Six of seven papers found that better benefits packages were associated with an increased use in health services (visits or receipt of specific services) among target populations [6, 73-76, 84]. Seven of eight papers also found expanded benefit packages were associated with better financial protection among target populations[77, 79-82, 85]. A single paper found that expanded benefit packages were associated with higher enrollment and health outcomes.

Caveats/weaknesses of studies (as reported in the studies): Almost all the papers reviewed here used survey data to collect outcome measures, and as such, they noted the potential of bias resulting from use of self-reports as a potential limitation in the study design [74, 75, 78, 80, 81, 83]. Several papers also cited focusing on highly specific populations or regions a limitation to generalizability [10, 74, 76, 77, 82-84]. Inability to make causal inferences and see changes long-term [6, 76, 79-81, 83] were also commonly cited due to cross sectional study designs. Additionally, the potential for confounding by unmeasured variables was a common concern [6, 76, 79, 80, 84] as was the lack of measurement of indirect expenses to access health services [77, 79, 85].

5.4 Consolidation of Separate Schemes

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Consolidation of different schemes to bring uniformity in benefits and payment
Other names used for intervention:	Integration of different schemes, merged schemes, unification of payment and compensation standards, unified medical insurance scheme
Number of studies included:	2 *[86, 87]*
Countries included in the studies:	China (2)
Underserved and socially excluded populations targeted in studies:	Poor, rural
Study design:	Quasi-Experimental: 2 Time series: 2

Description of the Intervention

Some LMICs, particularly emerging economies like China, have implemented government SHI reform programs as a step to achieve universal health coverage. The existence of multiple reform programs with fragmented coverage of socio-economic groups, however, can create barriers for equal access to health care services. Consolidating separate schemes into a singular mechanism may reduce administrative burden and streamline the substantial variations that exist in benefit packages and reimbursement rates across schemes. A singular financing modality can unify population coverage, fund pools, service packages, medical insurance drug lists, and reimbursement rates [86].

Consolidated schemes can target underserved and socially excluded populations through several mechanisms, depending on the individual scheme requirements itself. One method of targeting could be through employment, requiring employees residing in urban areas and retirees to enroll. Another method could be targeting a specific geographic area due to the characteristics of the area (typically government-classified rural areas) [87]. Other methods may

include voluntary schemes funded by individuals, collectives, and governments for all rural residents [87].

Summary of the Intervention Design

Both papers found for this review covered China's consolidation of health insurance schemes to improve equality in health care utilization between urban and rural residents: the New Rural Cooperative Medical Scheme for farmers and the Urban Residents Basic Medical Insurance for unemployed urban residents and children. The resulting combined scheme, labeled as the Urban-Rural Residents Basic Medical Insurance entailed a more comprehensive service package, more drugs covered, and higher reimbursement rates [86]. Eight provinces in China piloted the integration of the two schemes in 2014, while 23 continued with the existing separated schemes [86]. One paper reviewed how a "one system, two standards" mode was implemented in most provinces, where two standards of payment and compensation were set and residents were able to choose a standard. Other provinces implemented a "one system, one standard" mode that unified payment and compensation standards [87].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Merged schemes can improve access to a singular social health protection scheme with streamlined benefit packages and reimbursement rates. They may also expand service package and drug list coverage, which improve access to health care for enrollees, particularly in rural areas, who previously might have had a more limited benefit package.

Non-financial: This intervention does not address non-financial barriers to enrolling in or accessing social health protection.

Stated effects of the intervention

Enrollment variables were not assessed in either study.

Effect on improving access to health services

Intent of the intervention

Financial: The integration of programs could address coverage gaps for inpatient and outpatient care for beneficiaries. By expanding the pool of services offered as well as extending drug list coverage, an integrated program could enable more people, including underserved and socially excluded populations, to access health care services [86].

Non-financial: This intervention does not address non-financial barriers to enrolling in or accessing health services.

Stated effects of the intervention

Findings from one study showed that the integration of schemes improved the scale and depth of coverage and increased the number of outpatient and inpatient care visits. The frequency of visits increased more among rural residents than urban, and among poor than rich residents [86]. The second study also found that the integrated scheme had not established a significant impact on the level of health service utilization of urban residents [87].

Effect on improving financial protection

Integration of schemes increased reimbursement rates of health expenditure, which was found to have improved the affordability of services [86]. Changes in reimbursement rates decreased the expenditure for both outpatient and inpatient visits for enrollees. High deductibles for

inpatient visits persisted, leading to the poor still facing high costs and thus financial difficulty in health care utilization of inpatient care.

Effect on health outcomes

Both studies did not review the integrated health schemes' impact on health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: One study reviewed health care utilization for outpatient and inpatient care and hospitalization against control factors like gender, age, education level, marital status, and occupation status [86]. The second study reviewed the frequency of health care service utilization, including outpatient and inpatient care, and health care service costs for outpatient and inpatient care against similar characteristics [87].

Stated effects of the intervention

No results.

Caveats/weaknesses of studies (as reported in the studies): Limitations for both studies included the shortness of the study period to one year before and after the integration of schemes, which may have influenced the true effects of the integration on health care utilization. One study focused exclusively on health care utilization instead of health status improvement and financial protection, thus limiting the ability to conclude the more holistic effect of increased utilization of services [86]. The second study noted limitations in unobservable covariates that would have caused different trends between the treatment group in four pilot areas and the control group [87]. The study also indicated that data were collected via a survey conducted among urban and rural residents older than 45 years of age, thus limiting the study's scope of application.

5.5 Cross-Subsidization Between Schemes

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Cross-subsidization between health insurance schemes (whereby high-income workers contribute a portion of their pay to the poor population)
Other names used for intervention:	Progressive segmented health insurance, solidarity financing by means of a crossed subsidy
Number of studies included:	1 *[88]*
Countries included in the studies:	Colombia (1)
Underserved and socially excluded populations targeted in studies:	Poor
Study design:	Quasi-Experimental: 1 Cross-sectional: 1

Description of the Intervention

Governments often implement SHI schemes as a way of extending health benefits throughout a population. In contexts where resources are constrained, cross-subsidies from schemes for wealthier populations can help extend coverage to vulnerable populations by cross-subsidizing schemes for the poorest populations.

The paper included in this review describes Colombia's SHI system, which features three different SHI schemes, each covering a different segment of the population [88]. Under this government system, the subsidized scheme for the poorest population receives subsidies from wealthier populations through various governmental taxes and employees' payroll contributions.

Summary of the Intervention Design

The paper included in this review describes how Colombia's segmented SHI system is mandated in legislation to be a progressive policy that provides sequential coverage of the population, eventually achieving universal coverage. Colombia has three SHI schemes: the Contributive Regime, under which high-income workers contribute 4 percent of their salaries to finance the Contributive Regime and 1 percent of their salaries to finance subsidies to the poorer populations; the Subsidized Regime for the poorest populations, which is financed through the solidarity contribution from employees' salaries and general and local taxes; and the Special Regimes, a collection of privileged schemes that are generally guaranteed through unions or target special groups (e.g., military personnel, petroleum industry workers, and teachers). An equalization fund, FOSYGA, is responsible for managing the schemes' financial resources [88].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The paper does not specify how the intervention addresses financial barriers to accessing the intervention and/or other social protection mechanisms (although it is likely the Subsidized Regime is offered with little or no premiums or copayments to the poor) [88].

Non-financial: The paper does not specify how the intervention addresses financial barriers to accessing the intervention and/or other social protection mechanisms [88].

Stated effects of the intervention

The study's descriptive statistics highlighted that Colombia's largest city (Bogota) had the highest rate of health insurance coverage, while the most remote/rural town (Campoalegre) had the lowest coverage of the geographic areas included in the study [88].

Effect on improving access to health services

Intent of the intervention

Financial: The paper acknowledges that the 1993 Colombian health reform aimed to address inequitable access to health services by establishing the segmented SHI scheme that uses cross-subsidies to finance health insurance for the poor [88]. This implies that the intervention sought to address financial barriers to care by extending health insurance coverage to the poor.

Non-financial: The paper does not specify how the intervention addresses non-financial barriers to accessing health services [88].

Stated effects of the intervention

The study found that that Colombia's subsidized health insurance scheme for the poor improved health service utilization for the poorest people, when compared to the uninsured [88].

Effect on improving financial protection

The study found that that Colombia's subsidized health insurance scheme for the poor reduced the financial burden for the poorest people, when compared to the uninsured [88].

Effect on health outcomes

The paper did not provide any results on health outcomes [88].

Summary of results of Papers in the Review

Result measures used in the studies: The paper measured access to health services through two variables: health service utilization and out-of-pocket expenses [88].

Stated effects of the intervention: The study from Colombia showed through descriptive statistics that SHI enrollment was focused in urban areas. The study's stated effects suggested that SHI, and particularly Colombia's Subsidized Regime, improved health service utilization for the poorest and reduced their financial burden, when compared to the uninsured [88].

Caveats/weaknesses of studies (as reported in the studies): The paper does not report any weaknesses or limitations of the study.

5.6 Government Pays Premiums and/or Co-Payments

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Government pays insurance premiums and/or co-payments for targeted populations
Other names used for intervention:	Complementary insurance, exemptions on premium payments, fee discounts, government paid insurance, government paid premiums, health equity funds, health insurance scheme for the poor, institutional discounts, non-contributory insurance, premium exemptions, premium subsidies, reducing copayment rates, removal of out-of-pocket expenses, subsidized health insurance, supplemental insurance, user fee and premium exemptions
Number of studies included:	63 [71, 89-150]
Countries included in the studies:	Cambodia (2), China (3), Colombia (4), Ghana (11), India (10), Indonesia (4), Iran (1), Mexico (10), Nicaragua (1), Peru (1), Philippines (4), Rwanda (1), Senegal (1), Tanzania (2), Thailand (5), Turkey (3), Vietnam (7)
Underserved and socially excluded populations targeted in studies:	Children, children under 5, children under 6, dependents of insurance members, elderly, elderly women, ethnic minorities, families living below the poverty line, households living in disadvantaged communes, indigenous populations, informal sector, low income populations, migrants, near poor, newborns, non-poor informal sector, people aged 60-69, people aged >70, poor, poor and vulnerable, poor households in rural areas, poor pregnant women, pregnant women, residents of communities with very difficult socio-economic circumstances, residents without social security, rural residents, school children, self-employed, severely ill, socially vulnerable schools, stateless people, students, uninsured, urban poor, women
Study design:	Experimental (RCT): 2 Quasi-Experimental: 40 Time series: 13 Regression discontinuity: 4 Cross sectional: 23 Mixed methods: 5 Qualitative: 15 (14 case study, 1 interview)

Description of the Intervention

While most social health insurance schemes have mandatory enrollment for some people and require contributions from some members, governments can also pay the contributions – usually premiums but also co-payments and other administrative fees could also be paid – for identified underserved and socially excluded populations. The intent of these programs is to provide health insurance to populations that otherwise would not join due to unaffordability of

premiums and other payments. In many cases, these interventions also open social health insurance administratively to a wider population.

The underserved and socially excluded populations targeted for government paid premiums are usually people determined to be poor, workers in the informal sector, or some combination of the two and typically represent a population where collection of premiums through other means (e.g., payroll or employers) is difficult or impossible. However, geographic targeting is also possible, where the government pays premiums for entire provinces, districts, villages, or similar area [89, 97, 108, 110]. Determining what people are eligible for government paid premiums can be based on existing criteria or programs [110] (for example, identity cards identifying people as living below poverty), can be based on a mix of nationally determined criteria with some local discretion [91, 127], determined entirely by local governments [114, 122], identified by health facility staff [108, 121, 127] or insurance staff at health facilities [115], or some combination of the above [110]. Some populations may be eligible for the entire premium to be paid by the government, with other populations eligible for a partial subsidy, or the amount of government subsidy may be determined on a sliding scale based on a household's or individual's income [71, 96, 126], with enrollment in the social health insurance scheme open to all, but the amount of contribution varying depending on eligibility [93]. Some populations may be eligible for government paid premiums based on accessing certain health services (for example, pregnant women) [120]. Eligibility for government paid criteria may also have exclusionary criteria – for example, people enrolled in social security may not be eligible for government paid premiums [93].

Summary of the Intervention Design

As noted above, schemes vary in terms of the degree to which local governments and communities participate in the identification of people eligible for government paid premiums, but the degree of decentralization in the management of scheme needs also to be decided when designing government paid premiums for social health insurance [90, 108, 113, 124, 127, 131, 133]. In some cases, local complementary schemes (e.g., for near poor or the whole population) can accompany a national program of government paid premiums [114, 117]. Within these decentralized management decisions is whether the benefit package will be different in different areas, enrollment procedures, claims procedures, and methods for paying health facilities, although these may also be determined by the broader social health insurance scheme.

The benefit package for those with government paid premiums can be the same or different from other members of the social health insurance scheme, or separate scheme may be set up for those receiving government paid premiums [91, 109, 113, 136, 146]. The unit of enrollment (e.g., individuals, entire households, people in a household up to a certain number) [92, 114], copayment amounts [113], and whether the government will pays for other fees (membership, card processing, etc.) [99] also need to be determined.

The amount that government pays for the premium should be adequate for the insurance scheme to have enough financial resources to pay health care providers so that health care providers will want to treat those enrolled (including enough to eliminate the need for informal payments to health care providers) and maintain the financial viability of the insurance scheme [92, 132]. This includes identifying the sources of financing for the government-paid premiums, whether it be general government revenues or a specific earmarked tax [71, 114, 130, 132, 134]. Further, the amount of contribution from local governments and the national government, and whether the national government will provide matching funds, needs to be determined [89, 97, 98, 112, 122, 123, 127, 128].

The processes of determining eligibility for government paid premiums and enrolling in social health insurance also varied across the interventions found for this review. For example, in some cases people had to apply for insurance coverage and prove that they were eligible for the government premium subsidy [91, 99], while in other cases enrollment was automatic [100, 116, 121, 124, 130, 140, 141], and enrollment could also be mandatory [140]. The place for enrolling in insurance also varied, with some interventions having special offices, some using health care facilities, and some having insurance agents go house to house [124, 133]. When payments were necessary, the mechanisms for making payments also varied and could be made at banks, at insurance offices, or done electronically, also with different payment schedules [71]. Given that eligibility for government paid premiums may depend on factors that change over time (e.g., a poor household may leave poverty), decisions on how often members need to re-enroll in insurance also need to be made [114, 136], coupled with decisions about whether members have the ability to receive benefits as soon as they are registered/enrolled in the insurance [121]. Finally, overall monitoring and accountability mechanisms must also be decided [127].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Papers found for this review cite the cost of paying insurance premiums as a financial barrier to enrolling in social health protections schemes.

Non-financial: While government-paid premiums were intended to alleviate (or partially alleviate) financial barriers to enrolling in social health insurance, many other factors were found to limit people's enrollment in social health insurance. These included the perception among people, especially certain age groups, that they do not need health insurance or that paying premium for health insurance is not a good use of money [90, 105]. In some cases, populations may lack of knowledge about health insurance [105, 128, 130, 144], lack understanding of health insurance [71, 90, 103], or not know about the social health insurance scheme [114, 119], including not knowing how to enroll or that they need to re-enroll [92, 96], or not understanding benefit package they would be entitled to once enrolled in social health insurance [91, 105, 121]. If people know about health insurance and are aware of the scheme, they still may not understand the amount of supporting documents needed to enroll in health insurance [94] or lack trust in the management of the health insurance scheme [128], which may serve as barriers to enrollment.

A lack of an institution or clear process for automatically collecting premium from the poor or the informal sector [71, 91, 96, 107] may also limit enrollment. Setting up process for people that may change 'groups' (e.g., move between informal and formal employment) regularly [71, 104] or are very mobile [96] may encourage enrollment.

Existing mechanisms for targeting or identifying the target population may be incomplete or have other problems [103, 109]. Leakage and mistargeting can lead to target populations not having health insurance [114]. Under existing rules, non-citizens (stateless people) may not be able to enroll in government health insurance schemes [144].

Factors similar to those that affect access to health services can influence willingness to enroll in social health insurance (e.g., cultural barriers, lack of access to health facilities, or issues at health facility) [128].

Stated effects of the intervention

Government paid premiums was found to increase health insurance coverage in many instances [71, 89, 91, 92, 108, 114, 121, 123, 133, 143, 145, 149] but enrollment could be under 10 percent of the target population in some cases [119]. Government paid premiums in Mexico

[93, 111], Thailand [113] Vietnam [140] led to nearly the entire target population enrolling in health insurance, although, while enrollment was still very high, it was lower in rural areas of Mexico than in urban areas [131]. In some cases, overall enrollment in social health insurance became pro-poor after the government paid premium program [89] while in other cases, overall enrollment remained pro-rich after the government paid premium program [136]

In Ghana, government paid premiums intended, in part, to support people over the age of 70. Several papers assessed enrollment of this target population, with somewhat mixed results. One paper found older people less likely to enroll in insurance than younger people, although the number of respondents over 70 was small [90] and another paper found elderly less likely to enroll but once enrolled more likely to stay enrolled [129], while other papers found higher enrollment in older populations but not universal enrollment [105, 107]. Another paper found that coverage among people over 70 was 43%, with lower enrollment in rural areas [99]. In Ghana, the poor were more likely to enroll in health insurance [129] and more likely to drop out [128]. Female headed households less likely to enroll [129], and other vulnerable groups (women, ethnic minorities, rural areas) also less likely to enroll [130].

In the Philippines, a randomized control study found the government paid premium subsidy and provision of information about insurance increased enrollment by 5 percentage points in the target population, but that follow-up reminders and household visits had a bigger impact on enrollment. Together the efforts resulted in overall enrollment of 40% of the target population in health insurance [96].

Effect on improving access to health services

Intent of the intervention

Financial: Almost every paper found for this review noted that payments at point of receipt of health services constitute a financial barrier to accessing health services and pointed to insurance as a potential means of alleviating this barrier. Further, lack of an intermediary purchaser of health service such as insurance may lead to overmedicalization and greater out of pocket payments than would otherwise occur, and thus insurance, even if it does not eliminate out of pocket payments, may still help alleviate financial barriers to accessing health services [92]. Insurance also helps to make payments to providers more understandable and predicable, and the lack of predictability of costs may also a financial barrier to accessing health services [120].

Papers also mentioned the cost of transport [120, 127] and loss of income while seeking health care [127] as financial barriers to accessing health services.

Non-financial: The papers found for this review mentioned several non-financial barriers to access health services. General barriers included inaccessibility or distance of health facilities [90, 94, 102, 108, 116, 117], and the quality of services and availability of staff [94, 102, 105, 114, 116, 120]. Specific to insurance, perceived low quality of health care may contribute to people seeking care out-of-network and incurring out of pocket payments for care [137]. Specific non-financial barriers to access health services related to insurance included the amount of insurance-related paperwork necessary associated with seeking care [137], lack of access to insurance-accredited facilities [94, 97, 104], and lack of networks for referral care [123].

Perceived stigma associated with use of insurance targeting the poor may also limit use of health services [114, 139].

Stated effects of the intervention

Multiple papers found government paid premiums associated with increased use of inpatient services [92, 98, 119, 127, 136, 142], increased use of items included in the benefit package

[108, 113, 120, 145], overall increase in utilization [114], increase in outpatient care [143] , increase in inpatient, outpatient, and specialist visits [147], or increased use of some, but not all, services [112]. In one instance, government paid premiums were found to have prevented a drop in the use of health services during an economic crisis in the target group for government paid premiums but that was observed in other groups [91].

Papers set in Mexico and Colombia similarly found increased use of health services associated with government paid premiums, especially preventative services in Colombia [122, 123], but that the increase in health service utilization was not as large of an increase as found for people with other kinds of insurance [93, 104, 123]. One paper from Mexico also did not find an immediate association between government paid premiums and utilization [118], while another found that utilization of preventive services was still inadequate after government paid premiums were in effect [131]. In Vietnam, government paid premiums were associated an increased use of health services, especially for inpatient care but not amongst the lowest income decile [148]; and later assessment did not detect a change in health service utilization among those enrolling later in the insurance scheme [149]. Finally, in Thailand, there was no association between government paid premiums for stateless people and inpatient use, possibly because the target population did not know about the insurance [144].

For papers assessing maternal health services utilization, six of eight papers found and increase in utilization associated with government paid premiums, including increased use of timely ANC among poor women (but not other) [138], increased complete ANC visits [138], and those with government paid premium health insurance were more likely to give birth at a health facility in both Indonesia and Cambodia [94, 115, 117] and with a skilled attendant in Indonesia [94, 117]. However, in Ghana there was no increase in the use of skilled birth attendants in first year after the start of government paid premiums [116], and in Tanzania no increase in use of maternal health services and immunizations after the start of government paid premiums [121].

Effect on improving financial protection

Government paid premiums were found to lower health expenditures or out of pocket payments in India [106, 124, 135, 141, 142], Mexico [93, 97, 111, 118] although this effect possibly waned over time [126], China [98], Thailand [145], Colombia [109], with three papers from Vietnam reporting lower health expenditures [137, 139, 149], and one paper finding no association [148]. In Turkey, government paid premiums were found to have a limited effect on total health expenditures initially [91], but after the program extending benefits, there was a decrease in total health expenditures [146].

In the Philippines insurance enrollment increased, but so too did out of pocket payments [89], and while those with insurance for indigents received more insurance benefit, mistargeting meant that the poor in reality had higher payments (i.e., many with insurance for indigents were not actually poor) [95].

Government paid premiums were found to lower the incidence of catastrophic health expenditures in Turkey [91, 146], China [98], Thailand [113, 134], Indonesia [114], Iran [132], and in Mexico especially among the poor [93, 111, 118, 126]. In Vietnam in the initial stages, there was not association between government paid premiums and catastrophic health expenditures [140], but another paper did find reduced catastrophic health expenditures [148]. In India, three papers found no effects on catastrophic health expenditures [106, 125, 135], but one study found lower catastrophic health expenditures [136]. In the Philippines, catastrophic health expenditures may have increased [89].

Government paid premiums were found to lower the incidence of impoverishing health payments in Mexico [110] although possibly more limited among older people [104], China [98]

although qualitative research suggest that financial costs for health care were still perceived as a burden [150], and Thailand [113, 134]. In India [106, 125, 135] and Vietnam [140] there was no detected reduction in impoverishment, in the case of Vietnam this was despite high enrollment. In the Philippines, again, impoverishment due to health expenditures may have increased [89].

In Ghana [100-102], India [103], and Tanzania [121], the goal of eliminating all user fees for maternal health was not achieved, although probably out of pocket payments were lowered due to government paid premiums.

Effect on health outcomes

In Mexico, enrollment in insurance encouraged by government paid premiums was associated with reduced neonatal (before 28 days) and infant mortality and better height for age measures lower disease incidence after 8 years [97], lower infant mortality in Thailand [113], and reduced sick days and reported incidence of illness in children in Colombia [122]. In Thailand, there was also an increase in knowledge about selected diseases associated with government paid premiums.

In India, government paid premiums for insurance covering tertiary care was associated with lower mortality among the poor for covered conditions [141, 142].

Summary of results of Papers in the Review

Result measures used in the studies: Twenty-seven papers assess enrollment in health insurance, usually at a specific point in time, while 30 papers assessed the association between government paid premiums and use of health services. Thirty-six papers assessed an association between government paid premiums and financial protection, commonly using the total amount of out-of-pocket payments made for health services, catastrophic health expenditures, or impoverishment due to health expenditures. Six papers assessed the effects of government paid premiums on health outcomes in Mexico, Thailand, Colombia, and India.

Stated effects of the intervention: Government paid premiums were found to increase enrollment in health insurance in almost all cases, although the extent of coverage of the targeted populations varied from under 10 percent to nearly universal enrollment of the target population. Twenty four of the 30 papers assessing the association between government paid premiums and utilization of health services found increased use of health services. Twenty of 25 papers found decreases in out-of-pocket payments, 13 of 16 papers found reduced catastrophic health expenditures, and 4 of 8 papers found decreased incidence of impoverishment associated with the government paid premiums intervention. All six papers assessing the relationship between government paid premiums and health outcomes found government paid premiums associated with better health outcomes.

Caveats/weaknesses of studies (as reported in the studies): In the Philippines, where there were a negative or lack of results for financial protection, the insurance scheme reimburses members for payments made and the instrument used to collect data on health expenditures may not have captured these reimbursements, which may explain why results were different in the Philippines than in other settings [89]. Many studies used cross sectional or survey data which may be subjected to selection bias and do not track outcomes over time as programs mature [94, 98, 104, 106, 107, 112, 120, 121, 126, 129, 135-138, 142, 149]. Further, government paid premiums are often national in scope and implemented at the same time as other social protection interventions and disentangling the effects of government paid premiums from other social protection interventions is difficult [97, 131]. Negative results may also be the result of failure to adequately implement the intervention [117, 144].

5.7 Government Subsidy of Insurance/Premium (Targeted)

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Government subsidy of insurance premiums for targeted populations
Other names used for intervention:	Government paid premiums, government subsidized premiums
Number of studies included:	9 *[151-159]*
Countries included in the studies:	China (6), Egypt (1), India (2)
Underserved and socially excluded populations targeted in studies:	Families living below the poverty line, poor, rural residents, rural poor, school children
Study design:	Experimental (RCT): 1 Quasi-Experimental: 7 Time series: 5 Cross-sectional: 2 Mixed methods: 1

Description of the Intervention

This review discusses an intervention that addresses financial barriers to enrolling in SHI schemes: the government (national and/or local) pays a portion of the premium required to enroll in an SHI program.

All schemes discussed in the nine papers target vulnerable populations by providing a financial subsidy to groups that may not be able to afford the full cost of enrolling in the SHI scheme. The families of school children [9], below-poverty-line households, and [156, 157], rural residents [151-155, 158] were eligible for government subsidies across the schemes. Design decisions described in the papers revolved around the source of financing for the subsidies. In addition to the subsidies, two of the schemes use other methods to target the poor specifically, such as including private sector providers in the scheme, and eliminating fees at the point of service [156, 159].

Summary of the Intervention Design

The nine papers discuss three different SHI schemes that use premium subsidies to target a specific population. Six papers consider the New Cooperative Medical Scheme in China [151-155, 158], two papers look at Rashtriya Swasthya Bima Yojana in India, and one assesses Egypt's School Health Insurance Program. By the nature of this intervention, the implementing agency in each instance is some form of government entity, either a public national-level Health Insurance Organization (Egypt); a federally funded scheme that states buy into and implement (India); and a scheme that has been decentralized to county-level local governments to manage (China). One of the papers described how states generally contracted their functions out to private insurance firms [156]. Each scheme includes different services in its benefits package. In China, each local county is able to define its benefits package, so they all differ; however, in general, the insurance reimburses patients for a specified portion of inpatient and occasionally outpatient services at designated facilities once the patient contributes a copayment [152]. The insurance scheme in Egypt provides a comprehensive benefits package that includes prevention, outpatient care, inpatient care, subsidized pharmaceuticals, and medical devices [159]. The insurance in India covers hospitalization [156].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Government subsidies for SHI premiums to a specific population attempt to increase insurance coverage by making it more affordable.

Non-financial: The papers did not discuss any non-financial barriers to enrolling in SHI.

Stated effects of the intervention

The two papers that assessed enrollment in SHI were from India. In one paper that observed enrollment of the targeted below-poverty-line population in the scheme was 15 percent in one district and 40 percent in another. The authors cited issues such as errors in the list of eligible households, an annual process of re-enrollment by the insurance companies, and the fact that enrollment overlapped with the harvest season for the lower enrollment in one district [156]. Another paper from India found that factors significantly associated with insured households included family size, a family member with chronic disease, high socio-economic status, and the head of the household being employed [157].

Effect on improving access to health services

Intent of the intervention

Financial: Government-subsidized SHI attempts to lower patients' costs to access health care services by making insurance more widely available, and in theory eliminating costs of accessing health care such as out-of-pocket payments and/or catastrophic health expenditures. The papers mentioned a few other mechanisms for eliminating financial barriers to access. For example, insurance in Egypt attempted to alleviate financial barriers by specifically eliminating fees at services providers for insurance holders [159]; certain counties in China similarly do not allow copayments for hospitalizations, while other counties do [155]. Some counties in China require beneficiaries to invest in compulsory medical savings accounts, which are often used to pay for outpatient services at village clinics [151, 155].

Non-financial: The insurance in Egypt addressed non-financial barriers of access by contracting with providers and ensuring access to a network of public and private hospitals (which was also done in India), from which beneficiaries could freely choose. The insurance in Egypt also publicized the explicit obligations of public providers in the Health Insurance Organization's network, making public providers more attractive to members of the plan [159].

Stated effects of the intervention

The stated effects on health service utilization varied across the papers. In Egypt, the scheme was associated with increased visit rates [159]. However, among covered children, there was a reduction in the differentials in visit rates between the highest- and lowest-income children, while there was an increase in the differential in average level of access between school-going children and those not attending school (who tend to be poor and live in rural areas) [9]. Similarly, in India there was a positive effect on utilization, and insured households had higher inpatient service utilization [157]. The evidence from the studies in China is more varied. Three papers found some positive associations between enrollment in the scheme and utilization: increased village clinic use [151], improved service availability [3], and increased access to care (it is unclear how "access" was defined) [155]. However, the paper that found increased village clinic use also found no change in overall medical use [151], and one paper found no association with care seeking [152]. One paper in China found no significant impact on promoting equity in the use of health services [153].

Effect on improving financial protection

While the papers from China generally found that financial protection indicators improved in association with the scheme, the overall effect on financial protection was limited. Three papers

found that enrollment decreased out-of-pocket payments [151, 152, 155], one paper found that enrollment decreased catastrophic health expenditures [154], and one paper found a decreased economic burden of disease [153]. Four papers stated that the evidence of increased financial protection was limited [152, 155], particularly among the poor [153, 154]. Furthermore, one paper from China found that the premium subsidies were pro-rich [158]. The papers from India similarly found that the scheme offered limited financial protection. One paper found that mean out-of-pocket payments for inpatient services among insured was higher than among uninsured households [157]. Another paper found that insurance coverage did not produce a large reduction in the actual health care cost borne by the intended beneficiaries, in large part due to a preference for using private hospitals, which had lower compliance with the provision of free medicines and diagnostics [156]. In Egypt, the scheme was associated with reduced financial burden of health care services (out-of-pocket payments); however, only middle-income children benefited from the reduced financial burden [159].

Effect on health outcomes

No papers assessed the effects on health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: Two papers, both from India, discussed enrollment [6, 7]. Six assessed health care utilization [151-153, 155, 157, 159], with a few of the papers distinguishing between inpatient and outpatient care. All nine papers assessed financial protection [153, 155], including the effectiveness of targeting [158], out-of-pocket payments [151, 152, 156, 157, 159], and catastrophic health spending [154].

Stated effects of the intervention: This review found that there have been few studies assessing the effect of targeted subsidies of SHI on enrollment in India; the studies cited barriers for low enrollment and factors associated with enrollment. The evidence relating subsidized insurance to utilization is mixed, with five papers finding that subsidies improved access and utilization to health services, and two finding no effect on utilization. The results for the equity of utilization patterns were similarly mixed: among three papers, there was one instance of increased equity, one of decreased equity, and one of no effect. While five papers found that targeted SHI subsidies reduced individual measures of financial burden, seven papers cited limited overall financial protection and/or limited equity in the populations experiencing financial protection.

Caveats/weaknesses of studies (as reported in the studies): Two studies reported a weakness of using self-reported household expenditure when classifying living standards, which may be inaccurate due to recall bias [157, 158]. Another study cited three limitations: only analyzing inpatient expenditures for households experiencing hospitalization the previous year, leading to potential underestimation of catastrophic health expenditures; limited sample size of counties, leaving questions about the generalizability of conclusions across the country; and using a uniform threshold for catastrophic health expenditures, regardless of whether richer households have a greater capacity to pay [154]. In several studies, issues related to the non-random nature of program implementation may have limited the ability to generalize findings to a national level, among other limitations [151, 153-155]. Another potential limitation is that SHI coverage could lead households to demand more inpatient (or other) services, leading to increased expenditures and the potential for impoverishment [153].

5.8 Inclusion of Private Sector

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Inclusion of private sector to increase equity and access to services
Other names used for intervention:	Accreditation of private health care providers in SHI
Number of studies included:	1 *[160]*
Countries included in the studies:	Ghana (1), Kenya (1)
Underserved and socially excluded populations targeted in studies:	Low-income populations
Study design:	Qualitative: 1 (1 interview)

Description of the Intervention

The interventions described in this review include private providers in SHI schemes to extend care and financial protection to vulnerable populations. For the paper found for this intervention, this includes accreditation of private providers so government insurance schemes can "purchase for quality" [160].

Vulnerable populations may not have access to public facilities due either to geographic distance or costs, and private facilities may be more numerous and accessible [160]. Therefore, by increasing the number and quality of private providers participating in SHI schemes (e.g., through accreditation), underserved populations may gain increased access to quality services that they can afford at private providers [160].

Summary of the Intervention Design

The paper found assessed private provider accreditation in SHI schemes in Ghana and Kenya; both countries' accreditation processes are managed by the government insurance agency [160]. Each country has its own set of requirements for becoming accredited (e.g., registered with the state or a professional board), and the process typically entails some sort of application and an on-site assessment. In Ghana, assessment grades are made publicly available so patients can make informed choices. All providers are paid using fee-for-service in Ghana; in Kenya, inpatient providers are paid using fee-for-service, while outpatient providers are paid using capitation.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: This intervention does not address financial barriers to enrolling in or accessing social health protection.

Non-financial: This intervention does not address non-financial barriers to enrolling in or accessing social health protection.

Stated effects of the intervention

While patients recognized the benefits of enrolling in SHI, some patients reported that they let their SHI enrollment lapse due to cost, or because they did not see a purpose to having SHI coverage if they still had to pay out-of-pocket for some services at private providers [160].

Effect on improving access to health services

Intent of the intervention

Financial: Low-income populations may not have access to public facilities or may prefer to use private providers, but there may be financial barriers to accessing private providers associated

with out-of-pocket payments. By accrediting providers to include them in their SHI schemes, countries such as Ghana and Kenya are making care more accessible to vulnerable populations [160].

Non-financial: The intervention addresses non-financial barriers by making care more physically accessible. Vulnerable populations may not have a public facility nearby; by including private providers in the SHI scheme, countries increase the likelihood that people can access health care.

Stated effects of the intervention

N/A

Effect on improving financial protection

Interviews in Kenya and Ghana revealed that private providers tended to charge clients for services they thought were beyond reimbursable expenses. Furthermore, in Ghana, reimbursements to private providers were significantly delayed and compromised providers' ability to cover their basic expenses without charging patients. In addition to providers' perceptions that becoming SHI-accredited would generally increase client flow, several providers mentioned that they wanted to better serve low-income clients while also maintaining business viability, particularly for clinics serving a low-income population. Among providers who had not previously served low-income populations, some felt that SHI accreditation enabled them to do this [160].

Effect on health outcomes

N/A

Summary of results of Papers in the Review

Result measures used in the studies: In Ghana and Kenya, the paper included qualitative data on private providers' experiences with SHI, including some findings with implications for patients' financial protection [160].

Stated effects of the intervention: The data available focused on providers' experiences with SHI accreditation. However, findings suggested that private facilities' need to occasionally charge covered patients for care may jeopardize patients' continued SHI enrollment and their financial protection [160].

Caveats/weaknesses of studies (as reported in the studies): No limitations were mentioned in the paper.

5.9 Liaisons/Communication Systems Between Insurance and Beneficiaries

Summary Information

Health financing category:	Social health insurance
Name of intervention:	Liaisons and communication systems between insurance and beneficiaries
Other names used for intervention:	Policy navigators, promoting SHI enrollment
Number of studies included:	5 *[71, 82, 161-163]*
Countries included in the studies:	China (1), Philippines (4), Thailand (1), Vietnam (1)
Underserved and socially excluded populations targeted in studies:	Children who were hospitalized due to pneumonia and diarrhea, informal sector, non-poor informal sector, poor, poor children
Study design:	Experimental (RCT): 4 Qualitative: 1

Description of the Intervention

Five papers in this review described interventions that involve using communication and education strategies with the goal of increasing enrollment in health insurance. Specific strategies include mass media campaigns, distribution of informational pamphlets, and deployment of representatives to promote enrollment among individuals and communities. These interventions typically accompany and seek to increase enrollment in government-run SHI schemes.

Broadly, communications systems and liaisons between insurance and beneficiaries seek to target those populations who are difficult to reach and have little access to information regarding options for and benefits of insurance coverage. The studies presented here target several underserved and socially excluded populations including the poor, poor children, and the non-poor informal sector.

Summary of the Intervention Design

Three papers use data from a large-scale study in the Philippines, managed at the district level, that seeks to evaluate several health care policy reforms in the categories of access and quality [82, 161, 162]. One intervention within the access arm of the study is the use of policy navigators. Policy navigators are physicians who make monthly visits to assigned districts to meet with local leaders and promote interventions aimed at access and quality, and enrollment, serve as liaisons with the national health insurance program, and enroll indigent families. The large-scale study contains several interventions, but only one paper found for this review specifically tested the impact of the policy navigator intervention [162]. One paper from Vietnam describes an intervention whereby leaflets about the government-run SHI scheme are distributed to households. This study sought to test the effectiveness of this informational intervention in increasing enrollment against and alongside a 25 percent subsidy on insurance premiums [163]. The final paper discusses general strategies employed to increase enrollment of the non-poor informal sector national health insurance programs, including radio ads in Thailand, media advertising and door-to-door enrollment efforts in China, and community-based enrollment locations in India and the Philippines [71].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: These papers do not address financial barriers to enrolling/accessing social health protection.

Non-financial: These interventions all address the informational barrier to enrolling in social health protection. The policy navigators [82, 161, 162], educational leaflets [163], and media advertising [71] all provide information to potential enrollees on the benefits of insurance and how to enroll. Policy navigators also address more systemic barriers to enrollment by working directly with policymakers, mayors, and governors who are responsible for paying for and enrolling eligible households [162]. Some interventions such as door-to-door enrollment efforts, community-based enrollment offices [71], and policy navigators directly assist people to enroll who would not be able or motivated to do so on their own.

Stated effects of the intervention

One study from the Philippines found that policy navigators were associated with a 39 percent to102 percent increase in insurance enrollment at the district level compared to the usual enrollment efforts [162]. The study from Vietnam found that the informational campaign alone, which involved the distribution of a leaflet, had no impact on enrollment [163]. Similarly, the

authors of the meta-analysis conclude that outreach and communication efforts alone are unlikely to impact enrollment and must be accompanied by quality improvement efforts [71].

Effect on improving access to health services

Intent of the intervention

Financial: All of the interventions described here aim to increase enrollment in health insurance and having health insurance is associated with lower out-of-pocket costs for health services.

Non-financial: These papers do not address non-financial barriers to accessing health services.

Stated effects of the intervention

No papers used utilization of health services as results measures.

Effect on improving financial protection

One study reported that a multi-intervention effort aimed at improving access to health insurance, which included the use of policy navigators as one aspect, was associated with a 21 percent reduction in out-of-pocket expenditures for child hospitalization [82].

Effect on health outcomes

One study reported that a multi-intervention effort aimed at improving access to health insurance, which included the use of policy navigators as one aspect, was associated with a 4 percent to 9 percent decrease in infection rates and a 9 percent to12 percent decrease in wasting on recently hospitalized children [161]. Of note is that the authors concluded that they could not identify whether increased enrollment in insurance or expanded health insurance benefits drove the health status improvements.

Summary of results of Papers in the Review

Result measures used in the studies: Two papers used enrollment in insurance as an outcome measure [162, 163] and one of these also looked at cost effectiveness of the intervention [162]. One paper looked at health outcomes [161] and one at out-of-pocket expenditure for health services [82], though it should be noted these two papers encompassed additional interventions and did not consider the impacts of policy navigators in isolation [82, 161]. The meta-analysis paper did not have specific outcome measures [71].

Stated effects of the intervention: Enrollment in national health insurance increased as a result of policy navigators, but this effect was not observed when the intervention was provision of informational leaflets as a resource rather than a person [161, 163]. Increased financial protection and improved health outcomes were observed in the Philippines, though it is impossible to separate the specific impact of communication systems and liaisons from other types of interventions using the results of these papers [82, 161].

Caveats/weaknesses of studies (as reported in the studies): The two papers from the Philippines that studied access interventions but did not specifically assess the policy navigator intervention are both limited in the context of this review on liaisons and communication systems. Because they studied a group of interventions, it is impossible to conclude the effects of policy navigators on the health outcomes [161] and financial protection [82]. The paper from the Philippines that did specifically study the policy navigator intervention noted that confounding by a national program for subsidized premiums was possible, and the authors emphasized the importance of collaboration between national and local governments in program planning and rollout [162]. Two papers described limitations in their design that leave room for further research, one noting a limited scope of study population [82] and the other noting an overall small sample size [163]. Further, the paper from Vietnam mentioned that

implementing the intervention at the household level could have been problematic given that leaflet and information sharing was highly probable.

5.10 Linking Enrollment with Other Poverty Reduction Programs

Summary Information

Health financing category:	Social health insurance
Name of intervention	Linking insurance enrollment with other poverty reduction programs
Other names used for intervention:	Integration of social protection programming; integrated cash plus program
Number of studies included:	1 *[164]*
Countries included in the studies:	Ghana (1)
Underserved and socially excluded populations targeted in studies:	Children under 12 months, elderly with no productive capacity, extremely poor households with orphans and vulnerable children, persons with severe disability, pregnant women
Study design:	Quasi-Experimental: 1 Time series: 1

Description of the Intervention

Literature indicates that safety nets, including methods of cash, in-kind transfers, pensions, and school feeding programs targeting underserved or socially excluded populations, can lower inequality and significantly reduce a country's poverty gap. Governments aiming to mitigate the impact of poverty on health outcomes and access to health care can integrate safety net, or social protection, programs with existing health schemes, including health insurance. An example is the linkage of cash transfers, or direct provisions of cash to beneficiaries, with fee waivers for health insurance, helping to lessen financial barriers and avoid catastrophic health-related expenditures.

Integrated social protection programs can target underserved and socially excluded populations in a number of ways, depending on the conditionality requirements of both the social protection program and health insurance scheme. In the instance found for this review, cash transfers can target populations in the lowest wealth quintiles, and fee waiver protections for health insurance schemes can expand waiver-eligible categories to include persons categorized as disabled, with mental disorders, in need of antenatal, delivery, and postnatal care, and the poor or indigent [164].

Summary of the Intervention Design

The paper found for this review assessed the integration of Ghana's National Health Insurance Scheme with its Livelihoods Empowerment Against Poverty social protection program that offers bimonthly cash payments [164]. Beneficiaries of the cash payment program (extremely poor households with orphans and vulnerable children, elderly with no productive capacity, persons with severe disability, and those with a pregnant woman or child under the age of 12 months) would qualify under the national insurance "indigent" exemption that waives all insurance fees for card processing, premiums, and renewals.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The main barrier that integrated social protection programs address in accessing health insurance is using fee waivers to increase the affordability of health insurance enrollment [164].

Non-financial: In the Ghana program, cash payment program beneficiaries were informed about the fee waiver eligibility at the time of enrollment into the cash payment program, and awareness campaigns were periodically rolled out that may have contributed to a greater understanding of benefits. However, implementation challenges remained, and participants continued to have poor understanding of integrated enrollment benefits [164].

Stated effects of the intervention

This study found that while health insurance enrollment increased among cash payment program beneficiaries, cost remained a salient barrier, possibly due to insufficient awareness or misunderstanding of the health insurance fee waiver [164]. Annual renewal requirements were also found to have been difficult for poor families to comply with, often leading to enrollment benefits expiring.

Effect on improving access to health services

Intent of the intervention

Financial: Integrated social protection programs addressed cost barriers to accessing health services through removing fees associated with point-of-care use of services. However, perceptions of remaining health care costs can still remain as barriers to address [164].

Non-financial: Contingent upon conditionality requirements, integrated social protection programs can improve knowledge and awareness of the services being provided. Conditional programs can reinforce positive behavior changes (e.g., annual physical visits) as incentives to receive benefits of the scheme.

Stated effects of the intervention

This study found that while access to health insurance may help reduce financial barriers, it alone does not ensure access to health services. Barriers related to distances to facilities, the quality of services offered, wait times, and staff attitudes toward beneficiaries were deterrents to utilizing health services [164].

Effect on improving financial protection

This study did not review impact of integrated social protection programs against financial protection.

Effect on health outcomes

This study did not review the impact of integrated social protection programs against health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: This paper assessed current and ever enrollment in SHI by cash payment program participants. For those not enrolled, the paper examined reasons why, such as premium costs, lack of awareness of insurance card expiration, travel time or related costs too high, long waiting times, perceived poor quality of health services/preferred services not covered, closed health facility, and other reasons.

Stated effects of the intervention: This intervention's impact on SHI enrollment was substantial, though gaps remain in enrollment, particularly for adults.

Caveats/weaknesses of studies (as reported in the studies): Three limitations were reported. First, estimates of the integrated social protection program's impact may have been underrepresented, given that local averages were calculated within a treatment group that is relatively "better off" than other cash payment recipient households further away from the

eligibility cut-off. Secondly, baseline respondents were asked if they were enrolled in any health insurance scheme, with SHI as an option, while endline respondents were directly asked about SHI enrollment. This limitation likely had limited impact on results, given that SHI in practice is the only insurance available in these communities. Thirdly, the study did not review how distance to and quality of services might have impacted enrollment, which limits the understanding of integrated social protection programs' full impact [164].

6. Community-Based Health Insurance

This section describes results for five different broad interventions or activities to improve the ability of CBHI schemes to reach underserved and socially excluded populations.

6.1 Community-Based Health Insurance

Summary Information

Health financing category:	Government schemes
Name of intervention:	Community-based insurance to address user fees in government financed system
Other names used for intervention:	Community-based health insurance, community health fund, micro health insurance, microinsurance, mutual health insurance, mutual health organizations, mutuelles, voluntary community-based health insurance
Number of studies included:	30 [165-194]
Countries included in the studies:	India (6), Rwanda (5), Ethiopia (4), Bangladesh (2), Burkina Faso (2), Laos (2), Senegal (2), Armenia (1), Benin (1), China (1), Nepal (1), Nigeria (1), Tanzania (1), Uganda (1)
Underserved and socially excluded populations targeted in studies:	Children under 5 years of age, elderly, females, food insecure households, indigenous populations, market vendors, people living far from health facilities, poor, poor in rural areas, poor pregnant women in rural areas, residents in rural areas, rural women, self-employed workers, slum dwellers
Study design:	Experimental: Cluster randomized controlled: 2 Quasi-Experimental: 24 (Time series: 6; cross sectional: 19) Mixed methods: 1 Qualitative: 2 (Case study: 1; Interviews: 1)

Description of the Intervention

Community-based insurance operating within government-financed health systems targets populations that may otherwise not access health services typically because of user fees, although the quality of services and other factors may also be considered. Community-based insurance tends to be voluntary, although village-level enrollment, social pressure, premium subsidies, and other mechanisms may be put in place to encourage enrollment and typically are run by non-governmental organizations (NGOs) in cooperation or collaboration with the government or by the government. Enrollment criteria, benefit packages, administrative procedures, financial protection, and ancillary interventions accompanying the community-based insurance vary widely.

Community-based insurance can target underserved and socially excluded populations through several different mechanisms, either individually or in combination. Community-based insurance

can target specific geographic areas due to the characteristics of the area (typically a rural area or an area with a large percentage of the population classified as poor) [165, 166, 173, 176, 182, 184-191, 193]. Other methods of targeting include using NGOs or other programs that have existing networks of the target population [168, 171, 174, 188], lower or free premiums for certain populations [171, 187], and requiring enrollment of all household members (to ensure females, children, or the elderly are enrolled) [187].

Summary of the Intervention Design

The 29 papers found for this review cover 23 unique community-based insurance schemes, with papers covering different aspects of schemes, or done at different times of a scheme's maturity, in India [168-172], Ethiopia [178, 180, 188, 192], Rwanda [177, 179, 181, 186, 194], Burkina Faso [183, 185], and Laos [166, 167]. Some papers also cover multiple schemes [168, 171, 190]. Implementing agencies included local NGOs [168, 172-174, 190], international NGOs [184], governments [166, 188, 189, 191], and consortiums of government and NGOs [165]. All schemes relied on government-run health facilities, but three schemes [166-168] established primary health care run by the insurance company, while relying on government-run hospitals for inpatient and secondary care. When discussed in the paper, all schemes had premiums and all but one [185] indicated co-payments for services, usually as a percentage of incurred costs. Governments or donors subsidized the premiums for many of the schemes to encourage enrollment [165, 182, 184, 187, 188, 190]. Some subsidies were targeted at selected populations, such as having a sliding scale of premiums based on income or exempting the poor from the premium [166, 173, 174, 187]. The unit of enrollment tended to be households, although there were some schemes that enrolled individuals or groups [190]. In some cases, a minimum number of households in proximity needed to agree to join before the insurance company would enroll individual households [176, 182]. Typically enrollment and premiums were collected annually, although payment could be quarterly [184], monthly [166], or flexible to suit the needs of the enrolling households [182, 187, 190]. When the benefit package was discussed, the majority of the time it included both outpatient and inpatient care [166, 172-174, 186, 188], but in some cases only included outpatient care [184] or inpatient care [168, 176, 187]. In some cases, schemes only covered inpatient care because outpatient care was already provided free of charge to patients [168]. There were also occasionally limits or caps on how much benefit a beneficiary could claim [172]. In one case, the insurance took, in part, the form of individual savings [190]. In a few cases, outreach to the community and messaging were built into the implementation of the scheme [165, 174, 188].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Community-based insurance schemes face many implementation challenges. We do not present a full overview here.

Financial: There exists for community-based insurance an inherent tension between offering affordable premiums and copayments and ensuring that a scheme is financially healthy [190, 194], and there is the risk that insurance itself may be unaffordable in the target population [172, 176, 177, 191].

Non-financial: As mentioned in the papers, the primary challenge to community-based insurance is low enrollment and/or adverse selection (where people most in need of using health services enroll in the insurance scheme) [165-167, 175, 176, 184, 190, 192]. Some of the design features of community-based insurance, including block enrollment of households, flexible payments schedules, outreach and information campaigns, and subsidizing premiums are meant to overcome or at least partially address this challenge. Other barriers to enrollment

in community health insurance include a benefit package or health services that are perceived to be of poor quality [165, 172, 176, 177, 181, 185, 190], trust in the insurance scheme [171, 181, 190], lack of information about the insurance scheme [171, 182, 188, 190], and poor or overly complicated administrative procures for enrollment or claiming of benefits [165, 172, 176, 192].

Both financial and non-financial barriers may adversely impact underserved and socially excluded populations. For example, health services may be of poorer quality in rural areas [177], poorer people tend to live in the more remote areas farthest from health facilities [183], or staff at health facilities may treat insured patients worse than 'paying' patients, especially when insurance payments are seen as inadequate or insurance is perceived to target certain types of populations [185].

Stated effects of the intervention

Eight papers found that the poor or people with fewer assets were less likely to enroll or renew enrollment in community-based insurance than wealthier people [166, 167, 171, 173, 176, 183, 187, 191], while five papers found no association between wealth and enrollment [172, 182, 184, 189, 194]; all five that found no association between income or wealth and enrollment indicated that the poorer were as likely as the wealthier populations to join. One paper reported that those who are "near poor," and therefore not eligible for a full premium subsidy, were less likely to enroll than the poor or the wealthier [181]. Poor may be hesitant to enroll due to poor treatment at health facilities, remaining expectations for informal payments [190], or because health insurance premiums are paid at the same time as school fees, placing a large financial burden on more cash-poor households [176]. One paper found that children were less likely to be enrolled in community-based insurance than adults [183], while two other papers reported those living far from health facilities and with lower education are less likely to enroll [187, 194]. One paper found that enrollment in other poverty-related programs was associated with an increase in enrollment in community-based insurance [188], and one paper from India found that members of a scheduled caste or tribe were more likely to enroll than other populations [171].

Effect on improving access to health services

Intent of the intervention

Financial: The primary barrier community-based insurance addresses is the affordability of user fees at government-run health facilities [166, 167, 169, 170, 174, 176, 178, 180, 182, 184, 187-190, 194]. Informal payments may also be a barrier [174]. Community-based insurance intends to limit or remove unpredictable or prohibitive point-of-use payments and replace them with predictable payment schedules.

Non-financial: Less frequently mentioned in relation to community-based insurance than financial barriers, low quality of care is also a barrier to accessing health services [184, 185]. By also making more predictable payments to health facilities, community-based insurance may in theory also improve the quality of care. Distance to health facilities also is mentioned [176, 178, 183]; community-insurance schemes that include, for example, reimbursement for transportation expenses in their benefit package may help overcome this barrier.

Stated effects of the intervention

Thirteen papers found that members of community-based insurance schemes were more likely to use formal health care services (inpatient or outpatient) than comparisons [167, 169, 174, 175, 177-179, 182-184, 186, 193, 194]. Two further papers found that community-based insurance schemes were more likely to use formal health care services than comparisons for

some, but not all, services [165, 172]. Two papers did not find significant differences in utilization of health care services between members of community-based insurance schemes and comparisons [170, 185]. Of the two that did not find an effect, one used 'self-medication' as an outcome [170], which was not an outcome used in other papers. The other paper looked at the utilization of health services for the entire population of the area targeted for CBHI (and not just those who enrolled); lack of a difference in utilization of health services reflects low enrollment in the community-based insurance [185].

When looking at certain subpopulations, however, the results are less clear. One paper reports that while the poor and ultra-poor are more likely to use antenatal care services in association with membership in a community-based insurance, they do not complete a greater number of antenatal care visits than people without insurance [174]. Another paper notes that community-based insurance-associated increases in utilization are not seen among people living far from facilities [183]. Three papers note that wealthier members tend to make greater use of health services [165, 191, 194], one paper noted that only one of three schemes assessed showed utilization skewed toward the wealthy [172], while two noted that utilization was not skewed towards the wealthy [169, 182]. In Rwanda, utilization of health services among those enrolled in community-based insurance tends to skew toward the more wealthy, but this skew is either similar to overall utilization [177], or less pro-wealthy than utilization among those without community-based insurance [186].

Effect on improving financial protection

All nine papers that assessed financial protection found that enrollment in community-based insurance is associated with better financial outcomes, whether it is amount paid per visit [178] or episode of illness [194], lower rates of catastrophic payments [167, 177, 180], less impoverishment associated with payments for health care services [186], lower incidence of borrowing money, selling assets, or other indicators of financial hardship associated with seeking health care services [165, 170], or lower out-of-pocket payments for health [167, 175]. One paper noted that while there was a reduction in catastrophic payments associated with enrollment in community-based insurance, there was not a reduction in the inequality of payments [177]. Another paper noted that while out-of-pocket payments were lower overall among those enrolled in community-based insurance than for comparisons, there was not a reduction in health-related out-of-pocket payments among the poor [167].

Effect on health outcomes

Three papers assessed reported illness and found that members of community-based insurance were more likely to report an illness than people in the comparison group [169, 172, 184], possibly due to adverse selection into community-based insurance. One paper found that respondents with community-based insurance reported better ability to work after surgery than those without community-based insurance, although this was predominantly found in wealthier respondents [165].

Summary of results of Papers in the Review

Result measures used in the studies: Four papers assessed health outcomes, including incidence of illness and health status [165, 169, 172, 184]. Seventeen papers assessed utilization of health services, often any use, but sometimes separating inpatient and outpatient care [165, 167, 169, 170, 172, 174, 175, 177-179, 182-186, 191, 193, 194]. One included satisfaction with health services [168]. Nine papers included financial payments for accessing health care, either through net benefit, out-of-pocket payments, catastrophic expenditures, or borrowing or other signs of financial hardship that impede access to health care [165, 167, 170, 175, 178, 180, 186, 191, 194]. Seventeen papers assessed enrollment in the community

insurance scheme and/or re-enrollment in the community insurance scheme [166, 167, 171-173, 176, 180-184, 187-191, 194]. One study used knowledge of the community-based insurance scheme and its particulars as the outcome [192].

Stated effects of the intervention: This review found that there has been little assessment of community-based insurance's effect on health outcomes, and only one paper found evidence of a positive health outcome. Fifteen out of 17 papers assessing the association between CBHI and use of health services found a positive association, although for underserved and socially excluded populations targeted in studies, the associations may be smaller or may disappear. Community-based insurance does seem, in many cases, to provide financial protection to its members. Many papers reported that achieving substantial enrollment of the target population in community-based insurance is a challenge, and that special efforts are needed to reach the target population, but that enrollment of those especially underserved and socially excluded within the target populations is especially difficult (e.g., a community-based insurance scheme targeting a rural and poor area may need specific efforts or design considerations to reach those that are very or ultra-poor within that area).

Caveats/weaknesses of studies (as reported in the studies): Across the papers, three main limitations were reported. First, there exists the possibility of selection bias, in that the comparison groups may be systematically different from people who enroll in community-based insurance. For example, people with pre-existing illnesses or a proclivity toward being ill may be more likely to enroll in community-based insurance, or those who enroll may have different opinions about the quality of health services. Some of these systemic differences are hard to quantify and control for. For the two randomized trials, one reported that the randomization was 'broken' and people outside of the areas assigned to receive community-based insurance enrolled, while many households within the area assigned to receive community-based insurance did not enroll [170], indicating that there may remain selection bias.

Second, many papers emphasized that the small-scale and localized nature of the community-based insurance schemes assessed makes generalizations to other settings difficult. While local contexts and cultures likely do play a role in the relative success of community-based insurance, the many design decisions entailed in setting up community-based insurance also indicate that determining what makes one scheme 'successful' and another scheme 'unsuccessful' can be difficult to determine [185]. Some papers also cautioned about the small sample sizes used in the analyses [171, 185, 187, 189].

Third, studies expressed that phrasing of questions, recall periods, social desirability bias (where respondents give the answer they think the interviewer wants to hear), presence of others during the interviews, and similar concerns may affect or bias results.

6.2 Change Benefit Package

Summary Information

Health financing category:	Community-based insurance
Name of intervention:	Changes to insurance benefits packages to increase access to health care services
Other names used for intervention:	Micro health insurance
Number of studies included:	1 *[195]*
Countries included in the studies:	India (1)
Underserved and socially excluded populations targeted in studies:	Urban poor (slums)
Study design:	Experimental (RCT): 1

Description of the Intervention

Because CBHI schemes are usually voluntary, members of the community may be hesitant to enroll in CBHI if they perceive that there are limited benefits to enrollment. Changing benefit packages for CBHI so that the CBHI scheme covers more health care serves may encourage these populations to enroll in CBHI.

In the paper found for this study, targeting was done geographically, where a change to the benefit package were implemented in an area with a high proportion of poor households.

Summary of the Intervention Design

An NGO-run micro health insurance scheme in an urban slum in India was expanded to include a free preventive checkup with a registered physician in the NGO's wellness clinic [195]. The physician was carefully chosen as one of the most prominent and qualified doctors in the area. An RCT was conducted in which half of the policyholders of the micro health insurance scheme, randomly chosen, were offered free preventive checkups as an additional policy benefit.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: This study did not assess financial barriers to enrolling in social health protection.

Non-financial: As the paper discusses, low-quality health care in developing countries is a non-financial barrier to accessing social health protection and contributes to low retention in schemes [195]. Low-quality care reduces the poor's incentives to use health services and, thereby, reduces their demand for health insurance. By exposing beneficiaries to higher-quality care and additional benefits, policyholders are more willing to recognize the value of social health protection and renew their health insurance scheme.

Stated effects of the intervention

Insurance policyholders randomly offered a free preventive checkup with a qualified doctor had a willingness to pay to renew health insurance 53 percent higher than those not offered a checkup, doubling the likelihood of hypothetical renewal. This effect was concentrated on households at the lower end of the income distribution. The study did not find a significant difference in the level of satisfaction with the insurance scheme for beneficiaries and non-beneficiaries of the free preventive checkup [195].

Effect on improving access to health services

Intent of the intervention

Financial: Cash constraints impact the ability of poor households to access to high-quality health care. Micro health insurance is a means of offering financial protection to poor households, potentially reducing out-of-pocket expenditure for quality health care.

Non-financial: Low-quality care is a non-financial barrier to accessing health services, especially among the poor in India where the public sector is plagued with high absenteeism rates and the private sector providers in rural and poor urban areas are often unqualified [195]. By exposing individuals to higher-quality health care through the free preventive checkup, this intervention changes perceptions, raises the anticipated benefit of using quality health care, and leads them to use higher-quality services.

Stated effects of the intervention

Insurance policyholders that were offered a free preventive checkup with a qualified doctor are 10 percentage points more likely to consult a qualified practitioner when ill after the checkup. This effect is concentrated on households at the lower end of the income distribution [195].

Effect on improving financial protection

The study found that the intervention had no significant impact on beneficiaries' percentage of health expenses.

Effect on health outcomes

The intervention had no significant impact on beneficiaries' health status [195]. Households that attended the consultation were 14 percentage points more likely to later prefer a less-risky health situation than those who did not. The authors found no evidence of basic health knowledge acquired during the intervention checkup [195].

Summary of results of Papers in the Review

Result measures used in the studies: The primary outcomes measured in this study include use of quality health care services and willingness to pay to renew the health insurance scheme [195]. Secondary results measures include satisfaction with the insurance scheme and free consultation, general health behavior, health risk, health knowledge, and health expenses.

Stated effects of the intervention: The paper found that exposing insured households to quality preventive care can be a cost-effective way of raising the demand for quality health care and retaining policyholders in the insurance scheme [195].

Caveats/weaknesses of studies (as reported in the studies): The author acknowledged that after two years of insurance facilitation, the implementing partner decided to discontinue offering the insurance scheme, making it impossible to measure actual renewals. Therefore, the author was only able to assess hypothetical willingness to pay to renewals of the health insurance scheme, and not actual renewals [195].

6.3 Improve Management

Summary Information

Health financing category:	Community-based insurance
Name of intervention:	Improving the management of community health insurance schemes (informal sector)
Other names used for intervention:	Include management of informal sector insurance schemes in the formal sector structure
Number of studies included:	1 *[196]*
Countries included in the studies:	Tanzania (1)
Underserved and socially excluded populations targeted in studies:	Informal sector
Study design:	Qualitative: 1

Description of the Intervention

When multiple health insurance schemes exist in a country, harmonizing the schemes to improve management can help the CBHI schemes work more efficiently, unify messaging, and increase coverage.

In the paper found for this review, improving the management of CBHI targeted underserved or socially excluded because CBHI was the mechanism used in Tanzania to provide insurance to the informal sector, and thus improving CBHI served to target that population. The merging of the two scheme's management is the first step towards the merger of the two schemes into one social health insurance scheme.

Summary of the Intervention Design

The intervention analyzed in the paper found for this review involves merging the management of a voluntary informal sector CBHI scheme in Tanzania with the country's National Health Insurance Fund, a compulsory formal sector scheme [196]. The objectives of the merge were to harmonize the management operations, improve efficiency and supervision of the informal sector scheme, and increase coverage. A memorandum of understanding was signed by the NHIF, the Ministry of Health and the Prime Minister's Office giving management responsibility for the CBHI scheme to the National Health Insurance Fund. The government felt that the National Health Insurance Fund had strong experience in managing a health insurance scheme, with experts and many zonal offices. The Ministry of Health covered the recurrent costs of managing the scheme. The reform was intended to improve access to services by supporting the Primary Health Services Development Program which was designed to bring health services closer to the population. The reform has led to significant changes in national- and zonal/regional-level management systems, for example, a CBHI Directorate was created within the National Health Insurance Fund; a national consultation meeting with CBHI coordinators from across the country was organized to inform them of the reform and its objectives as well as to emphasize the need for expanding CBHI coverage; a nationwide information campaign was launched to expand CBHI enrolment; and districts were encouraged to employ full time district CBHI coordinators who are responsible for tracking membership levels and reporting on CBHI and user fee funds collected by the district.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The reform did not explicitly address financial barriers to enrolling in social health protection.

Non-financial: Non-financial barriers to enrolling in CBHI included weaknesses in the overall scheme's management and constraints to coverage expansion. The linkage of insurance schemes strengthened the informal sector scheme management and administrative capacity by bringing more intensive and qualified supervision closer the district, reducing administrative overheads and, ultimately, increasing pooling and coverage [196].

Stated effects of the intervention

National CBHI coverage increased from less than 2 percent to over 5 percent between 2008 and 2011. In June 2011, the national SHI scheme released funds to pay for health insurance cards for the poor in a number of districts across the country, including rural districts [196]. Although the effects of this are yet to be picked up in national figures, it is expected this will further enhance coverage over the coming years.

Effect on improving access to health services

Intent of the intervention

Financial: The reform did not explicitly address financial barriers to accessing health services.

Non-financial: Geographic accessibility was listed as a non-financial barrier to accessing services. The reform was intended to improve access to services by providing support to the Primary Health Services Development Programme, which was designed to bring health services closer to the population [196].

Stated effects of the intervention

The study did not utilization of health services.

Effect on improving financial protection

The study did not assess financial protection.

Effect on health outcomes

The study did not assess health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: The study assessed awareness and acceptability of the reform, enrollment, and fund availability and use relative to need in facilities [196].

Stated effects of the intervention: Embedding the CBHI management within the national SHI organizational structure brought more intensive and qualified supervision closer to the district. National CBHI membership more than doubled. However, awareness of the reform was limited below the district level due to the reform's top-down nature [196].

Caveats/weaknesses of studies (as reported in the studies): The authors acknowledge that the field work took place two years after the reform, and little change had been observed at district level at the time of the study [196]. However, reforms of this kind often take time to lead to concrete changes on the ground and the current assessment serves as an initial indication of progress and the initial implementation process rather than a definitive evaluation of impact.

6.4 Linking Health Insurance to Other Social Programs

Summary Information

Health financing category:	Community-based insurance
Name of intervention:	Linking health insurance to other social programs
Other names used for intervention:	Community-based scheme tied to integration of social policies, health cooperative, integrated insurance program, integrated social security scheme, microinsurance
Number of studies included:	10 *[197-206]*
Countries included in the studies:	Bangladesh (2), India (6), Kenya (1), Tanzania (1)
Underserved and socially excluded populations targeted in studies:	Female, informal sector workers, low-income, poor, rural, self-employed women workers, ultra-poor, urban poor, women, families of women belonging to self-help groups in rural setting
Study design:	Experimental (RCT): 1 Quasi-Experimental: 4 Cross sectional: 4 Mixed methods: 1 Qualitative: 4 (2 case study, 2 interview)

Description of the Intervention

Some organizations are choosing to link CBHI with other social programs, for example, through microfinance institutes, labor associations, trade unions, NGO programs, and more, with the overall aim of pooling risk, stopping the erosion of members' incomes due to health care needs, and better catering to the needs of their social program members.

The schemes described in the papers included in this review target certain population groups, for example, those identified as poor, informal sector workers, self-employed, and/or women, who are eligible to take advantage of the intervention.

Summary of the Intervention Design

Tanzania implemented quasi-mandatory CBHI enrollment strategies to cover low-income people and informal workers who are not covered by national social protection schemes in two regions [197]. These strategies include increasing user fees for non-members of CBHI or other social

protection schemes, automatically enrolling beneficiaries of cash transfer programs (and automatically deducting funds from their cash transfer money), and enrolling the exempted groups (expectant mothers, children under 5, and people over 60).

In Kenya, the Jamii Bora Trust Microfinance institute, an organization of poor, self-employed informal workers, in 2001 started a health insurance program (Jamii Bora Health Insurance) for its members to improve their access to quality health care [200]. The scheme had an annual health insurance premium of KShs 1,200 (US$16) per member, which covered the principal member and up to four children under the age of 18. A spouse and additional children could be added to the scheme. A member could either pay the full annual premium at one time or make weekly payments of KShs 30 (US$0.40) for 50 weeks through the year. Jamii Bora Health Insurance covered inpatient costs only and contracted with over 70 public or faith-based hospitals throughout Kenya to provide inpatient services. There are no copayments, exclusions, or cost restrictions for inpatient services. All members of Jamii Bora Trust Microfinance Institute are eligible to voluntarily join the health insurance program; institute members who have loans must buy health insurance. Any member may continue their membership even after they have finished their loan repayments.

In Bangladesh, many NGOs with microcredit programs offer three types of microinsurance: life, health, and integrated [206]. Microinsurance differs from traditional insurance in that the plans have lower profit margins but also lower premiums. Life insurance is required of many microcredit borrowers. Micro health insurance is offered to increase access to primary health care among the microcredit beneficiaries. The paper included in this review analyzed 13 micro health insurance schemes. All the schemes provide basic and preventive health services (including immunizations, family planning, consultations, and normal deliveries) through low service pricing and affordable premiums collected from a large group of the disadvantaged. Members also receive discounts on medicines and pathology tests. Most schemes run community-based clinics staffed by medical professionals and paramedics and include laboratory facilities. Two schemes have large hospitals, but other schemes use referrals for secondary and tertiary care. Copayments are required to reduce moral hazard, but the copayment amounts are designed to be affordable. Most schemes have a provision for the poorest to receive benefits without premium or copayments; however, neither of the two financially viable programs do this. Most NGOs operating micro health insurance schemes receive external funding to subsidize their programs; only the Society for Social Service and the Dhaka Community Hospital have achieved a 100 percent recovery rate.

In Bangladesh, a group of informal workers established the Labor Association for Social Protection health cooperative in Chandpur subdistrict [204]. Membership is based on the household. The membership fee (per household) is fixed based on the informal workers' willingness to pay for health insurance, and a minimum of Bangladeshi Taka 10 (US$0.128) per household per week is charged. The same benefit package is available to all members; it provides access to qualified medical doctors, medicines, diagnostic tests, and inpatient care. In addition to the cooperatives' own doctors and pharmacy, private and public health care providers, including specialist doctors (e.g., gynecologists and endocrinologists) are contracted to serve the members [204].

In India, RCTs were conducted in rural Uttar Pradesh and Bihar to evaluate three CBHI schemes [203]. The CBHI schemes were introduced by the Delhi-based Micro Insurance Academy in partnership with three local NGOs. Enrollment in the schemes was offered to households connected to self-help groups; the groups consist of 10 to 20 women living in the same village who come together and agree to save a specific amount each period and are generally trained and supported by the NGOs [203].

The Self-Employed Women's Association (SEWA) is a trade union of informal women workers in India that started an integrated CBHI, Vimo SEWA, which coordinates with two additional corporations in India to provide life insurance, health insurance, and asset insurance as an integrated package [199, 201, 202, 205]. Membership is voluntary. Women 18 to 58 years are the principal members, and can also buy insurance for husbands and children. The health insurance component covers hospitalization only; the choice of health care provider is left to the member, and can be private for-profit, private nonprofit, or public. Approximately 41 percent of the scheme's annual premium (72.5 rupees or US$1.67) is earmarked for the health insurance component. Women who pay this premium are covered to a maximum of 1,200 rupees (US$28) per year in case of hospitalization [201].

A study in India analyzed the potential of CBHI schemes providing financial access and partial risk protection for non-maternal health care to rural women in the state of Orissa [198]. Three CBHI schemes for women's non-maternal health care were included; two were linked with microfinance institutions and one had no microfinance link. The linkage with microfinance institutions was believed to make the CBHI schemes more attractive to women who were able to experience both the potential benefits of pooling and access to microfinance. The two schemes were known as self-help group-linked schemes, the lowest-level unit of a microfinance institution in India, formed and supported by government, the community, or NGOs [198].

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: In Bangladesh, most micro health insurance schemes allow the poorest to receive benefits without premium or copayments, thereby reducing the financial barrier to enrollment [206]. Other NGOs have found that linking membership in their overall association with access to health insurance that is designed to respond to the needs voiced by members makes the health insurance scheme more attractive [205].

Non-financial: Perception of the quality of health care is a non-financial barrier that has important implications for insurance subscriptions and re-enrollment and, ultimately, the overall financial viability of schemes [206]. Voluntary enrollment in social health protection is a barrier to uptake, regardless of other efforts that have been made to improve the scheme – people who experience illness appear to be the most interested in joining, resulting in a low rate of participation among the healthy population [197]. Other common non-financial barriers are a general lack of understanding about how insurance works and an aversion to paying for health services unless an individual is facing an illness or accident. In India, a campaign to raise insurance awareness included the screening of a movie in the intended treatment areas and numerous meetings with subscribers [203]. Subscribers were also offered the chance to choose their benefit packages and participate in the claims committees and governing bodies that steer the day-to-day operation of the scheme [203]. In India, the linkage of CBHI with microfinance institutions is attractive for poor rural women who are able to experience the potential benefits of pooling and gain access to microfinance at the same time [198].

Stated effects of the intervention

While quasi-mandatory enrolment strategies in Tanzania may temporarily increase enrollment rates, drop-out and non-payment of contributions remain important problems [197]. The authors acknowledged that inadequate benefit packages are a contributing factor to these challenges and that, overall, the findings indicate the limitations of any strategy to increase enrollment into CBHI, unless they are coupled to clear improvements in the availability and quality of health care [197].

A health cooperative in Bangladesh found that a number of factors were significant determinants of health scheme participation. One was that people who had coverage under the social financial safety net program (i.e., received governmental financial support due to age, veteran status, widowhood, etc.) were significantly more likely to join the scheme [204].

Focus group discussions among SEWA CBHI members in India yielded a total of 12 barriers faced by members in utilizing the insurance scheme. These barriers occurred at any of four different stages of the scheme utilization process: (1) hospitalization; (2) claim submission; (3) claim processing; or (4) getting reimbursed after successful claim submission [205].

Effect on improving access to health services

Intent of the intervention

Financial: Lack of funds is consistently listed as a financial barrier to people accessing health services. To stop the erosion of borrowers' income by health care needs, NGOs such as Grameen Bank in Bangladesh, SEWA in India, and Jamii Bora Trust Microfinance Institute in Kenya have introduced CBHI schemes for their members [199, 200, 202, 205, 206]. CBHI pools the risks of unexpected costs of persons falling ill and needing hospitalization by charging a premium from a wider population base of the same community [204]. Among poor rural women in India, risk pooling through CBHI (however limited) disproportionately benefits these women because the coverage allows them to receive more health benefits than they can pay for [198]. In addition, collective bargaining through community-based mechanisms produces comparative price advantages [198]. In Bangladesh, free public health services for the urban and rural poor exist only in theory; in reality, the poor are largely excluded from accessing the public facilities due to lack of money (for bribes) or connections [206]. In addition to pooling risk, microcredit organizations in Bangladesh and elsewhere often run their own community-based clinics, which further reduces financial barriers.

Non-financial: Lack of physical access to health services for women, rural people, and the poor is a significant non-financial barrier. In Bangladesh, there is an overall shortfall of doctors and hospital beds and most of those resources are located in urban areas [206]. Microinsurance for health is designed to rectify spatial exclusion and lack of access to health services. Microcredit organizations, for example, began providing microinsurance for health, and running their own community-based clinics, because their members could not access state-run health clinics [206].

Some of the non-financial barriers to accessing health services through the SEWA CBHI scheme are rooted in factors outside the scheme's control, such as illiteracy, and an inadequate transportation and health care infrastructure that makes it difficult for a family to seek care [205]. Other non-financial barriers relate to the scheme's design and management, for example, lack of clarity even among scheme staff regarding the scheme's rules and processes, and document requirements that claimants must meet to prove the validity of their claims [205]. Members are often unclear about the documents required, and face a lack of cooperation from doctors in getting the required documents, the cost of getting the documents, a delay in claim submission, the fear of the claim being rejected, and weak linkages between the claimant and the scheme staff [205].

Stated effects of the intervention

The RCTs conducted in rural India revealed that the CBHI schemes had no impact on access to outpatient or inpatient care, including from rural medical practitioners who were intended to be the main source of outpatient care covered by the CBHI scheme [203]. The authors noted that about one-third of the households dropped out after a year, most often because of poor quality of services, the cost of premiums, and the need to pay for care from non-designated providers

[203]. The most likely explanation for poor quality is that the payment system, which contracts providers on a yearly capitation basis with monthly installments, provides an incentive to lower the quality of care offered to insured patients compared with those paying a fee for service [203].

The Vimo SEWA scheme found that submission of claims is inequitable, particularly in rural areas [202]. The less poor in rural areas are significantly more likely to submit claims than are the poorest. And, among rural Vimo SEWA members, the rate of claims among men is almost twice as high as among women. Factors that may contribute to these inequities include: the poorest in rural areas may find it difficult to access hospitals with inpatient facilities, either due to financial or geographical constraints. Women are reluctant to be hospitalized because of their household responsibilities of cooking, childcare, and care of livestock. Even when women or poor members are admitted, they may face hurdles in filing an insurance claim because it requires skills and capabilities less common in the poor, such as literacy and negotiating the formal systems of hospitals [202].

In a cross-sectional study comparing utilization rates of beneficiaries in India covered under CBHI (SEWA), social insurance, private insurance, or no insurance, the odds of being untreated were higher among those enrolled with community plan (SEWA) as well as among rural residents [199].

A non-financial barrier to accessing services in India was the households and individual's non-prioritization of non-maternal health care. Despite having financial risk protection measures in the form of insurance, many women neglected non-maternal health care, instead preferring to reserve the funds for childcare and future emergencies. This shows there should be more sensitization to women's essential health care needs [198]. In addition, absence of a scheme covering both inpatient and outpatient care was the major impediment to covering non-maternal health care comprehensively. Between CBHI schemes covering outpatient versus inpatient care, the former appears to have suited non-maternal care, enabling higher use of services for non-maternal ailments [198].

Jamii Bora Health Insurance members were significantly more likely to be hospitalized than non-insured members. They were also significantly more likely to be admitted more than once and to spend more days in the hospital than non-insured members [200]. Among respondents who reported having been hospitalized in the 12 months preceding the survey, 20.5 percent of those who were insured were hospitalized in comparison to 15.2 percent of the uninsured were hospitalized [200]. The probability of being hospitalized was higher among females, those with higher education, and those with chronic conditions. The majority (33.4%) of the insured were hospitalized during child delivery in comparison to 26.7% of non-insured members. Among the insured, 28.2 percent had been hospitalized for surgery, whereas 20 percent of the uninsured were hospitalized for surgery.

Effect on improving financial protection

In a cross-sectional study comparing financial protection of beneficiaries in India covered under CBHI (SEWA), social insurance, private insurance, or no insurance, both social insurance and private insurance plans succeeded in providing financial protection, whereas the community plan (SEWA) did not provide financial protection [199]. A case study on SEWA found similar results; even after reimbursement, the costs paid by some claimants were still catastrophic [201]. For 35.6 percent of claims, the total spent on hospitalization would have been catastrophic for the claimant, while expenditures by patients after reimbursement were catastrophic for 15.1 percent of claims. Reimbursement of claims by the fund had the greatest impact on reducing catastrophic expenditure among the poorest quintiles [201].

CBHI mechanisms in India offered only partial financial risk protection for non-maternal care; enrollees still incurred considerable out-of-pocket costs in the form of copayments. This limited financial risk protection was on account of less-than-optimal service coverage for non-maternal care, low sum assured or benefit ceiling, risk-averse behavior of the enrollees, and presence of copayments [198]. In the majority of cases, the financial resources mobilized through community-based mechanisms were just adequate to cover the cost of outpatient care and not enough to cover hospitalization expenses [198].

In Bangladesh, micro health insurance may increase access to primary health care by decreasing the cost of basic health care, but it does not reduce the likelihood that health-related costs will be catastrophic for a household [206].

Effect on health outcomes

None of the papers assessed health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: Papers evaluated the effect of linking CBHI schemes to other social programs on enrollment [197, 204], health care utilization [199, 200, 203, 206], and reduction in out-of-pocket expenditure [198, 199, 201, 203, 206]. One paper analyzed the equity of scheme coverage and claims (by socio-economic status, gender, and geography) [202]. Another explored the barriers faced by members – particularly the poor in rural and remote areas – in benefitting from a CBHI scheme [205]. None of the papers assessed health outcomes.

Stated effects of the intervention: The effects of linking CBHI to other social programs is mixed. Two papers looked at enrollment, but only one found a positive result between involvement in other social programs and enrollment in CBHI [204]. The other analyzed quasi-mandatory enrollment strategies and found that they only work temporarily [197]. Two papers found a positive effect on health care utilization – that CBHI increased use of health care services [200, 206]; however, two other papers found that CBHI schemes have no effect on utilization [199, 203]. With regard to financial protection, of the five papers that assessed the effects of linking CBHI to other social programs, all of them found negative results, that is, that the intervention did not provide adequate financial protection and reduce the likelihood that essential health-related costs could result in catastrophic expense for a marginalized households [198, 199, 201, 203, 206]. One paper had no results for any of the four areas below [205].

Caveats/weaknesses of studies (as reported in the studies): Several studies pointed to the lack of generalizability of their results because the sample was either not representative and/or focused on a particular vulnerable group [198, 200, 202, 203, 205]. Collecting accurate data on members, particularly in rural areas [202], was a challenge and the exclusion from the study of households with incomplete data is likely to bias the results if such households are significantly different from those that were successfully found and interviewed. One study included self-reported data on household income and costs associated with hospitalizations that may not have accurately reflected all costs related to hospitalization [201]. Another study that assessed demographic characteristics associated enrollment in a CBHI scheme but did not study insurance-specific attributes, for example, premiums, copayments, deductibles, benefits covered, and the quality of care in the health facilities where the insured sought care [204]. In addition, lack of information of the study population prior to enrollment in a CBHI scheme was also listed as a weakness [200].

6.5 Subsidy on Premium

Summary Information

Health financing category:	Community-based insurance
Name of intervention:	Subsidies on health insurance premiums for targeted populations
Other names used for intervention:	Reduced CBHI premium, subsidized CBHI scheme
Number of studies included:	3 *[207-209]*
Countries included in the studies:	Burkina Faso (1), China (1), Nigeria (1)
Underserved and socially excluded populations targeted in studies:	Poor, indigene dwellers, rural poor
Study design:	Quasi-Experimental: 2 Time series: 1 Cross-sectional: 1 Mixed methods: # Qualitative: 1

Description of the Intervention

Subsidizing the premiums of CBHI entails allowing targeted members of a community to join the CBHI scheme without paying the full amount of the premium that non-targeted members pay to enroll in the scheme.

The schemes described in the papers included in this review target certain population groups, for example, those identified as poor or indigent, to be eligible to take advantage of the subsidized premiums.

Summary of the Intervention Design

The papers found for this review covered three voluntary CBHI programs in Burkina Faso, China, and Nigeria. In Burkina Faso, a district offering CBHI used community wealth ranking to identify the poorest quintile of households, which were subsequently offered insurance at half the usual premium rate [207]. The unit of enrollment was the household and financial support for the subsidies was provided by a German philanthropic organization. A CBHI scheme in Nigeria's Niger Delta also provided a 50 percent monthly premium subsidy for native/indigene dwellers [208]. The scheme developed the subsidy in partnership with the international foundations and local and state governments, with the international foundations providing the funds for the subsidy and the state and local governments serving as the primary provider through government-owned health facilities. In China, the government encouraged poor households to participate in a voluntary Rural Mutual Health Care scheme in Guizhou Province. Every participant received a 53 percent annual premium subsidy, and for those identified as poor (about 5% of total residents as identified by the local Civil Affair Agency) the local government paid full premium [209]. The unit of enrollment was the household.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Even though the premiums for CBHI are often low, the very poor do not have the capacity to pay even a small premium. Lack of financial means represents a barrier to enrollment and one of the main factors influencing enrollees who did not renew their membership [207]. The papers in this review subsidized anywhere from 50 percent [207, 208] to 100 percent [209] of the premium for the poor and indigene, under the assumption that the remaining copayment would be affordable to them. Wang et al. (2006) also hypothesize that with subsidies, enrollment would be high and the scheme would be not only attractive to the high-risk residents, but also to the low-risk ones, thereby minimizing adverse selection [209].

Non-financial: To avoid/reduce adverse selection, the CBHI scheme in the China enrollment unit was set at the household level rather than the individual level. It is expected that adverse selection might be reduced by enrolling individuals with mixed health status within a household [209].

Stated effects of the intervention

In Burkina Faso, of all households identified by community wealth ranking as poor, 11.1 percent enrolled in CBHI once the subsidies were implemented, versus only 1.1 percent enrolled the previous year [207]. Once the subsidies for the poor were implemented, 28.8 percent of all the insured were from the households selected as poor versus only 4.9 percent in the year prior to the subsidies [207]. In China, results show that although the subsidized scheme achieved an enrollment rate of 71 percent of rural residents, in general, individuals with worse health status were more likely to enroll in CBHI than individuals with better health status. Although the household is set as the enrollment unit for the CBHI scheme in China for the purpose of reducing adverse selection, nearly one-third of enrolled households were in reality only partially enrolled [209]. The study found that adverse selection mainly occurs in partially enrolled households [209].

Effect on improving access to health services

Intent of the intervention

Financial: Lack of financial means was consistently reported as a key barrier to accessing health care among the poor [207, 209] and indigene [208]. By removing financial barriers at the point of use, CBHI represents a response to the problem of access to health and offers financial protection against the cost of illness and catastrophic expenditures.

Non-financial: None of the studies addressed non-financial barriers to accessing health services.

Stated effects of the intervention

The CBHI scheme in Nigeria found that the poorest 20 percent of the population received 12 percent of benefits while the richest quintile received the largest share (23%) [208]. Inpatient and outpatient benefits are weakly regressive (pro-rich), statistically significant at a 10 percent level of significance.

Effect on improving financial protection

No studies assess financial protection.

Effect on health outcomes

No studies assess health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: One paper measured enrollment in CBHI based on the community wealth ranking methodology, and the acceptability of selection of the poor through community wealth ranking [207]. Another looked at the total CBHI benefit per person aggregated by socio-economic status – by estimating annual utilization rates and average unit costs for inpatient and outpatient services to produce a total cost per patient and then deducted annual out-of-pocket expenditures [208]. The third measured enrollment and adverse selection [209].

Stated effects of the intervention: Papers from Burkina Faso and China found a positive impact of subsidies on CBHI enrollment [207] although the paper from China noted that adverse

selection still exists [209]. The paper set in Nigeria found that the CBHI scheme's inpatient and outpatient benefits were weakly regressive and had a tendency toward pro-rich distributions [208].

Caveats/weaknesses of studies (as reported in the studies): The community wealth ranking methodology requires familiarity among the people and is unlikely to work in contexts where the community ties are weak, or where there are high levels of conflict and mistrust [207]. There were some sectors where key informants did know their community well enough to perform the task, which limits the accuracy of the wealth rankings [207]. The authors also acknowledge that the poverty threshold used might be a limitation – they selected the poorest 20 percent of all households even if they did not coincide with the number of all the poor in the village [207]. The risk with this approach is that some households may be wrongly classified as poor who are not poor; or it can result in under-coverage, whereby some poor are not identified as poor.

The paper assessing the CBHI scheme in Nigeria used "occupational status" as an indicator of socio-economic status. However, authors were unable to assign an occupation status to roughly 11 percent of the sample. We cannot know if those clients without an occupation status were different in terms of characteristics and utilization of services. The authors also point to limited data availability about the distribution of visits and the use of hospital services over the year of study [208].

The study set in China had a one-year follow-up rate of 84 percent among the study participants [209], and residents who were lost to follow-up were more likely to be healthy, unmarried, and live farther from the village center than the residents who completed follow-up. This may affect their estimations of adverse selection.

7. Cash Transfers

This section describes three different types of cash transfers that targeted underserved and socially excluded populations.

7.1 Conditional

Summary Information

Health financing category:	Cash transfer
Name of intervention:	Conditional cash transfer programs for targeted populations
Other names used for intervention:	Cash benefits, social cash transfer program
Number of studies included:	4 *[210-213]*
Countries included in the studies:	Brazil (2), Ghana (1), India (1)
Underserved and socially excluded populations targeted in studies:	Indigenous, OVCs, poor, pregnant women, and subsequently mother-child dyads, those with TB
Study design:	Quasi-Experimental: 3 Time series: 2 Other: 1 Qualitative: 1

Description of the Intervention

Conditional cash transfers are a means of social protection in which cash payments are made to poor households under stipulations on the actions of recipients and/or how the funds are spent. The intention of conditional cash transfer programs is to allow recipients to invest in the human capital of their own families and communities, thereby alleviating poverty.

In all four papers identified for this literature review, conditional cash transfer programs were operated by the government, some with support from international governments and NGOs. Conditional cash transfer programs targeted poor populations in all four papers. Two programs specified underserved and socially excluded subpopulations in their eligibility criteria: households with orphans and vulnerable children [213] and pregnant women and mothers of young children [210]. Two papers studied the effect of a national conditional cash transfer program on tuberculosis incidence [211, 212] with one looking specifically at indigenous populations [211].

Summary of the Intervention Design

The papers in this review cover three conditional cash transfer programs, from India, Brazil, and Ghana. The paper from India described a pilot conditional cash transfer program implemented at the state level. It incentivized pregnant women and mothers to change behavior with regard to care seeking and undernutrition [210]. This was the only paper reviewed that designed a novel program. The study randomized participants to two different sets of conditions as part of its design. The two papers from Brazil and the one from Ghana described existing national conditional cash transfer programs that provide payments to poor households across the country on conditions related to school attendance for children, routine health visits for pregnant women, mothers, and children, vaccination [211-213], and enrollment in national health insurance [213]. None of the programs had rules for how the money could be spent, though some invoked nutritional support in the program's name and marketing [210, 213]. Important design decisions, then, reflect the amount of payment to recipients, the behaviors payments are conditioned upon, and the methods for determining that the conditions have been met.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The pilot study of the conditional cash transfer program in India cited several financial challenges with enrolling people into the program including the high processing fees for bank accounts. Programs using a direct deposit method to distribute funds should seek to mitigate this challenge in the program design [210]. As the other papers analyzed the effects of cash transfer programs on those already enrolled, they did not address barriers to enrollment.

Non-financial: Lack of bank accounts or identification cards to open a bank account were cited as challenges for enrollment in the pilot in India. These barriers were particularly impactful for migrant women. The authors of this study also cited a problematic registration window and lack of awareness of the program that left many eligible women out of the program [210]. As the other papers analyzed the effects of cash transfer programs on those already enrolled, they did not address barriers to enrollment. More generally, they described barriers associated with accessing social health protection for indigenous populations [211], people at risk for tuberculosis [212], and orphans and vulnerable children [213], and suggested that more targeted approaches are necessary for each of these subpopulations.

Stated effects of the intervention

One study reported that the conditional cash transfer program increased enrollment in health insurance for orphans and vulnerable children under 18 as this was a condition of the program [213]. The paper did not quantify this result but indicated that it was related to a recurrent theme of increased health service utilization.

Effect on improving access to health services

Intent of the intervention

Financial: Cash transfers may allow recipients to pay costs associated with seeking health services that might otherwise constitute financial barriers, including in contexts where national health insurance covers a substantial proportion of service fees. Two papers reported that participants used cash transfers directly to pay for health care including services for children [210] and medications [213]. Additionally, the program in Ghana conditioned upon enrollment of orphans and vulnerable children into the national health insurance scheme, which removed out-of-pocket expenses for medical care [213]. In terms of care for specific illnesses, conditional cash transfer may be helpful in reducing poverty overall but are unlikely to prevent catastrophic costs associated with treatment for diseases such as tuberculosis [211].

Non-financial: All the conditional cash transfer programs described by these papers conditioned receipt of benefits on utilization of health care services. The programs provide an incentive for recipients to seek care for themselves and/or their children when they otherwise might not [210-213]. The program in Ghana included an education component for caregivers on the importance of seeking care for children during illness as an additional method of improving care-seeking behavior [213].

Stated effects of the intervention

Two papers reported increases in utilization of health services as part of their results. The study in India noted the number of women attending the Village Health Sanitation and Nutrition Day increased by 36 percent in association with the program. Increases were also found in weight monitoring during pregnancy (17% increase) and child growth monitoring (22% increase). However, they noted that there was no increase in utilization of services that were not specifically incentivized by the program, including antenatal checkups or immunization. The authors concluded that individual services need to be incentivized in order to drive broader uptake [210]. As stated above, results from Ghana showed that insurance registration represented an important pathway to service utilization by reducing a financial barrier [213].

Effect on improving financial protection

No studies directly address financial protection.

Effect on health outcomes

Three papers quantified health outcomes linked to conditional cash transfer. The two studies from Brazil found that participation in the national program was negatively correlated with tuberculosis, one indicating that conditional cash transfer represented a protective factor for tuberculosis infection [211], and the other indicating that tuberculosis incidence is significantly lower in municipalities with high program coverage [212]. While neither paper specifically investigated the mechanism by which cash transfers contributed to disease reduction, the authors explained that tuberculosis is associated with several risk factors including poor living conditions, and conditional cash transfer programs may allow recipients to mitigate these risks [211, 212].

The program in India reported a 7.7 percent decrease in underweight children, a 7.7 percent decrease in wasting, a 14 percent decrease in anemia in women, and a 9.4 percent decrease in underweight mothers. The impact on underweight mothers was largest among the poorest, least educated, and those from scheduled caste households. No significant impact was found on stunting, and the authors explained that this was not unusual given that stunting reflects long-term poor health and is unlikely to be impacted by short-term interventions. They also noted that the study could be underpowered to detect small changes in stunting measures. Additionally, improvements were found in various health-related behaviors such as proper treatment of diarrhea with oral rehydration salts, family planning, or nutrition [210].

Summary of results of Papers in the Review

Result measures used in the studies: Three papers assessed service uptake and other behavioral practices [210], including accessing treatment [211] and health service utilization [213]. Three studies also assessed health outcomes, including maternal and child health outcome measures [210], improved child nutrition and improved emotional health and wellbeing [213], and the population incidence of tuberculosis [212]. Financial protection was described in general terms by all of the papers by indicating that cash transfers increase the financial resources of a household, and these funds may be used to cover health care expenses; however, no papers measured outcomes directly related to financial protection [210-213].

Stated effects of the intervention: The various interventions broadly demonstrated positive impacts of conditional cash transfer programs on a variety of outcomes. The study from Ghana described increased enrollment in health insurance as a result of conditional cash transfer [213], and studies from both India and Ghana showed increased health service utilization [210, 213]. Three papers reported health outcomes; all three found positive associations between conditional cash transfers and most or all of the various health outcome measures assessed.

Caveats/weaknesses of studies (as reported in the studies): The pilot study in India described several limitations due to changes within the government, that is, outside of the program's design. This points to a need for cash transfer programs to take government context into account in their implementation, for example, to ensure that payments occur on time and the impact of the program can be rigorously evaluated [210]. The study on indigenous populations in Brazil noted the potential for selection bias inherent in case-control studies [211]. The main limitation in interpreting the results of the second study in Brazil is that data were collected and analyzed at the municipality level, and thus cannot be used to draw conclusions about an individual's risk for tuberculosis related to conditional cash transfer [212]. As the study in Ghana used a qualitative interview design, the authors noted the potential for social desirability bias whereby respondents gave the answers they believed the researchers wanted to hear or provided favorable responses for fear of being withdrawn from the program [213].

7.2 Loans/In-Kind

Summary Information

Health financing category:	Cash transfers
Name of intervention:	Loans and contributions in kind to increase total family income
Other names used for intervention:	Livelihood loan, micro-loan, microfinance loan
Number of studies included:	1 *[214]*
Countries included in the studies:	Kenya (1)
Underserved and socially excluded populations targeted in studies:	People living with HIV (PLHIV)
Study design:	Quasi-Experimental: 1 Time series: 1

Description of the Intervention

Microfinance loans are meant to facilitate income-generating activities for entrepreneurs without access to funds through mainstream financial institutions. Only one paper in this literature review includes such an intervention with a loan in kind, meaning that the money is intended to purchase specific materials for the income generating activity.

This intervention specifically targets farmers living with HIV in the province that has the highest HIV rate in the country. The high burden of HIV makes this region especially susceptible to

poverty and related issues, including food insecurity and malnutrition. Improved agricultural output could potentially alleviate the severity of these challenges [214].

Summary of the Intervention Design

This paper describes a study of a microfinance-based agricultural support program for farmers living with HIV in the Nyanza province of Kenya. Thirty HIV-positive farmers received a microfinance loan for an irrigation pump that would allow them to irrigate their crops year-round, in addition to other supplies and training. The authors aimed to evaluate the feasibility of the intervention and of collecting data on health and economic outcomes for loan recipients and their families [214]. The intervention was implemented by a local HIV treatment and care center in collaboration with international organizations and was funded by an international donor [214]. To be eligible for the study, participants had to be receiving HIV treatment at a particular center, had to be able to make a down payment for the loan, and had to have access to farmland and water supply. Farmers agreed to repay the loan within one year (approximately two crop cycles). After signing a commitment contract, participants received the irrigation pump, a hose pipe and inlet pipe, fertilizer, pesticides, and seeds. Site visits and ongoing training were conducted on a quarterly basis. Outcomes were measured 12 months after participants received the pumps [214].

Addressing Barriers to Enrolling/Accessing Social Health Protection

Financial: This intervention provides access to a financial resource (microfinance loan) for a population without access to loans through mainstream financial institutions. A financial barrier to accessing the intervention itself is that participants were required to make a 10 percent down payment to be eligible for the loan, which presumable excluded some potential participants. The authors did not address this barrier to enrolling in the study [214].

Non-financial: This paper did not address non-financial barriers to enrolling/accessing social health protection.

Stated effects of the intervention

The paper did not address enrollment.

Addressing Barriers to Accessing Health Services

This intervention does not directly address access to health services.

Effect on improving financial protection

The study reported positive results in family income, but did not report how these affected affordability of accessing health care services [214].

Effect on health outcomes

The authors note that health outcome results demonstrated the feasibility of collecting BMI and CD4 count from the population. There was no significant difference in participant BMI before and after the intervention. All three participants who had CD4 counts below 200 cells/mcL at baseline had counts above 200 cells/mcL at the 12-month follow-up, but the authors could not separate the effects of the intervention on the improved CD4 counts from the effects of antiretroviral treatment [214].

Summary of results of Papers in the Review

Result measures used in the studies: Relevant result measures included household health measures [214].

Stated effects of the intervention: Results on health outcomes were mixed, but improvements in health metrics may also be due to other interventions [214].

Caveats/weaknesses of studies (as reported in the studies): The paper addressed several limitations and requirements to address challenges in future iterations of the program. The study had a small sample size of 30 participants without a control group. Further, almost all the patients were on antiretroviral therapy, muddling the effect of the intervention on the collected health outcomes. These limitations prevent causal inference on the impact of the intervention. Another limitation was the lack of loan repayment. To mitigate this challenge, the authors recommended that future iterations use partnerships with a local microfinance organization to create a structure that better encourages or incentivizes loan repayment. Finally, the study had disproportionately few female participants, which prevented a gendered analysis of the intervention [214].

7.3 Unconditional

Summary Information

Health financing category:	Cash transfers
Name of intervention:	Unconditional cash transfer programs for targeted populations
Other names used for intervention:	Non-contributory pension, social cash transfer program, social cash transfer scheme, supplemental income program, unconditional income support
Number of studies included:	*7 [215-221]*
Countries included in the studies:	Burkina Faso (1), Colombia (1), Ecuador (1), India (1), Indonesia (1), Kenya (1), Lesotho (1), Malawi (3), Mexico (2), South Africa (1), Uganda (1), Uruguay (1), Zambia (2), Zimbabwe (1)
Underserved and socially excluded populations targeted in studies:	Elderly populations below the poverty line, female youth, people living with HIV/AIDS, people 70 and older, poor, poor people living with HIV/AIDS, vulnerable children and adults, youth, youth with mental health disorders
Study design:	Experimental (RCT): 4 Quasi-Experimental: 1 Time series: 1 Meta analysis: 1 Qualitative: 1

Description of the Intervention

Unconditional cash transfers are a means of social protection in which cash payments are made to targeted populations without any conditions upon the receivers' actions. They tend to be operated by national or regional governments, though are sometimes supported by donors and NGOs. Unconditional cash transfers may increase financial security of households, thereby increasing access to health care and food resources. While there are no stipulations on how the funds can be spent, many programs invoke nutritional support and health service utilization in their marketing.

All the programs described in the seven papers reviewed target underserved and socially excluded populations. Some studies define their target populations broadly by poverty status (Malawi, Zambia) [218] while others take a more specific approach and target subpopulations such as elderly people (Mexico, Colombia) [216, 217], people living with HIV/AIDS (Uganda) [219, 220], and youth living with mental health disorders [216].

Summary of the Intervention Designs

One study from this review designed a novel unconditional cash transfer program; this program took place in Uganda, provided cash payments to people living with HIV, and tested the effects

of cash grants with and without financial counseling [220]. The remainder of the papers assessed the effects of an existing unconditional cash transfer program on specific subpopulations [215-219, 221]. The program in Malawi is implemented at the district level [216, 219]. The study in Mexico used a combination of two available cash transfer programs, one implemented at the state level and one national program [215]. Similar to the study in Mexico, the study in Zambia analyzed the effects of two different unconditional cash transfer programs, one that targets recipients based on household factors and the other that targets entire districts [218]. The program in Colombia was national in scope [217]. Lastly, a meta-analysis paper included here studied programs in Ecuador, Indonesia, Lesotho, Mexico, South Africa, Uruguay, Zambia, Burkina Faso, Kenya, Malawi, India, and Zimbabwe. It described a variety of study designs for unconditional cash transfer to determine their impact on health service utilization in LMICs, including comparisons between conditional and unconditional cash transfer programs [221]. These unconditional cash transfer programs differ primarily in their target populations. Though not described in every paper, design decisions likely include factors such as the frequency of payments, eligibility unit (individual, household, district, etc.) and methods for determining eligibility, method of delivery (cash at local pay point, direct deposit to bank account, etc.), and the amount of each payment.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: Unlike some other forms of financial protection, all the unconditional cash transfer programs addressed here are non-contributory, making them accessible to those with extremely limited financial resources and those with an employment history in the informal sector [217]. Payment amounts vary by program and must be sufficient to have an impact [217, 218, 220], so this is a key design decision. Additionally, programs may need to be in place for a long period of time to be effective in their aims [215], which leads to questions about funding sustainability over the long term.

Non-financial: Several of the programs were implemented at the town or district level based on community demographics [215, 216, 219], which could limit non-financial barriers to accessing the cash transfer, for example, lack of individual knowledge of the program, inability to apply for the program, or avoidance of the program due to stigma associated with eligibility criteria such as poverty or HIV status.

Stated effects of the intervention

None of the papers addressed enrollment.

Effect on improving access to health services

Intent of the intervention

Financial: Cash transfers may increase the financial security of households thereby allowing recipients to pay costs associated with seeking health services, for example, transportation to health facilities, service fees, and other out-of-pocket expenses.

Non-financial: None of the papers included in this review directly addressed non-financial barriers to accessing health care services in their interventions. The study from Colombia does mention low health literacy as impacting health care service utilization [217], though the program does not address this barrier. The study from Uganda tests a financial assistance counseling component as part of the unconditional cash transfer program [220], which may provide one avenue to address non-financial barriers by encouraging health service utilization as a way to spend cash grants.

Stated effects of the intervention

The study from Mexico found an increase in doctor's visits for females, increased purchasing of medications, and an increase in participants who paid their own medical expenses associated with unconditional cash transfer [215]. The other two studies that analyzed utilization of health services found no significant impact associated with cash transfers, the meta-analysis drawing this conclusion based on results from a dozen different programs [217, 221].

Effect on improving financial protection

One of the studies from Malawi reported positive results on self-reported economic wellbeing [219], but no studies assessed the effect of unconditional cash transfers on protecting recipients from the negative consequences of making payments for health care services.

Effect on health outcomes

Four of the papers found positive results on health outcomes [215-217, 219] and two found no effect [218, 220]. The study in Mexico found improvements in health outcomes associated with aging such as memory recall and blood hemoglobin levels [215]. Both studies from Malawi also reported positive impacts, one showing decreases in youth depressive symptoms [216] and one describing general self-reported health improvements among recipients [219]. The program in Colombia also looked at self-reported health and found positive impacts only among male recipients but no effects among female recipients [217]. The study with participants living with HIV showed no impact of the program on CD4 levels, the main health outcome evaluated [220]. The authors speculate that the standard of care for HIV, which has vastly improved over the three plus decades of the HIV epidemic, may already have led to improvements on health outcomes, and additional interventions, such as microcredit, may only lead to marginal improvements. Although the program in Zambia did reduce food insecurity, the size of the reduction was not enough to generate statistically significant change in the stress levels among poor households in the program [218].

Summary of results of Papers in the Review

Result measures used in the studies: Results measures used in these studies included a broad range of health outcomes pertaining to physical health [215, 217, 219], HIV management [218, 220], mental health [216, 218], health care utilization [215, 217, 221], and food security [215, 219, 220].

Stated effects of the intervention: Three studies assessed health care utilization. One found a positive association between unconditional cash transfers and health care utilization, while two, including a meta-analysis, found no association. Four of six papers found positive associations between unconditional cash transfers and health outcomes.

Caveats/weaknesses of studies (as reported in the studies): Several studies cited potential spillover effects as caveats, explaining that in many of the communities where unconditional cash transfers are distributed, cultural norms that involve pooling resources is common [215, 217, 220]. Cash transfer programs may also overlap with other social programs, making it difficult to separate the effects of each [217]. One study suggested that an 18-month follow-up period was not long enough to observe potential impact of unconditional cash transfers because building wealth takes longer [215]. Several studies relied on self-report for outcome indicators, the authors noting that this may have led to biased results [217, 220], and the meta-analysis also noted that the studies analyzed had an overall high potential for bias [221]. Additionally, the studies in Malawi and Zambia used tools to measure depression and perceived stress that had not been previously validated in a sub-Saharan African context, potentially impacting the results

[216, 218]. Finally, as most of these studies looked at highly specific populations, some noted limited generalizability of their findings as a weakness [215, 218].

8. Transport

This section describes one method of providing transportation to access health services for underserved and socially excluded populations.

8.1 Transport

Summary Information

Health financing category:	Transport
Name of intervention:	Provision of transport to access health services
Other names used for intervention:	Free transport, reimbursement of transport costs, transport schemes, transport voucher schemes
Number of studies included:	2 [222, 223]
Countries included in the studies:	Pakistan (1), Uganda (1)
Underserved and socially excluded populations targeted in studies:	Children, mothers, newborns, pregnant women
Study design:	Quasi-Experimental: 1 Cross-sectional: 1 Qualitative: 1

Description of the Intervention

Provision of transport to access health services covers several types of interventions: 1) community-based services, in which a small van serves as an ambulance stationed in the community. The services operate with the support of the local community under the supervision of the associated program; 2) facility-based services, in which an ambulance, or often a modified van, is based at a public sector health facility to provide timely access to quality transport from community health centers to higher referral facilities; 3) public sector emergency services, which includes first responders and the services focused on all types of emergencies; 4) transport voucher schemes, which includes interventions where vouchers are provided to the poor and marginalized members of the population for reimbursement for transport costs. Vouchers are a demand-side intervention that subsidizes (or fully covers) the cost of services. Transport vouchers are designed to cover the financial costs associated with transportation to and from a health facility.

The two papers in this review targeted underserved and socially excluded populations by providing transport to a specific population – women during pregnancy, at birth, and for postnatal care [222, 223]. Transport barriers make the requisite obstetric care inaccessible for women during pregnancy and at birth, when complications may become life threatening for mother and child.

Summary of the Intervention Design

One paper for this review covered seven interventions in Pakistan that were divided into four major categories as listed above [222]. Management of these interventions varied across NGOs, the public sector, public-private partnerships, and community partnerships. The interventions also varied in geographical coverage – with some interventions focusing on a specific district to all provinces and regions of the country. The majority of these interventions provided free transport. Where fees applied, social protection was available for those unable to afford the services.

The intervention in Uganda consisted of a voucher scheme (vouchers for transport and services), community mobilization, and health systems strengthening (including provision of basic supplies, training health workers, and support supervision) [223]. The transport voucher entitled a pregnant woman to obtain locally available transportation (motorcycle or bicycle) to and from an accredited health facility within their catchment area for four antenatal care visits, delivery and one postnatal care visit. This transport voucher was coupled with a service voucher entitling the pregnant woman to maternal health services at an accredited health facility of their choice.

Effect on improving enrollment into/accessing the social health protection

Intent of the intervention

Financial: The papers for this review did not address financial barriers to enrolling in social health protection.

Non-financial: The papers for this review did not address non-financial barriers to enrolling in social health protection.

Stated effects of the intervention

These studies did not assess enrollment or the proportion of the target populations making use of transport services.

Effect on improving access to health services

Intent of the intervention

Financial: Out-of-pocket costs for transportation to health facilities constitute financial barriers to accessing health services, with poor women in rural areas being less likely to deliver at a health facility compared to wealthier women [223]. Provision of free transport alleviates the financial barriers around high costs of transport. Where fees are applicable, the interventions in this paper provided social protection for those who are unable to afford the services [222].

Non-financial: Non-financial barriers to accessing health services for women during pregnancy and at birth include absence of ambulance and telecommunications systems, difficulties in arranging private transportation, distance to nearest health facility, terrain, low availability of transportation options, and lack of information about location of the nearest secondary care facility [222, 223]. Community-based services operate in rural, geographically difficult terrain where other modes of transport were limited and expensive. Facility-based services have infrastructure throughout the country and facilitate linkages across health facilities. Transport vouchers tended to target poor and vulnerable pregnant women, ensuring the availability of free transportation during emergency medical need. Of note, the voucher scheme provided the option of reimbursement of transport costs; however, it could not ensure the availability of transport.

Stated effects of the intervention

Key informant interviews and focus group discussions highlighted the perception of increased utilization of services by mothers in Pakistan. One of the ambulance services established was responsible for bringing 69 percent of the women delivering at health facilities from their homes to the health facility via ambulance [222]. It was also reported that transport voucher schemes improved access to health services of disadvantaged members of society in Pakistan, while in Uganda it was reported that there were 13,283 additional deliveries and 13,780 additional postnatal care visits associated with voucher across 25 health facilities (after adjusting for secular trends) [223].

Effect on improving financial protection

The majority of mothers who used the public sector emergency services and transport vouchers in Pakistan reported that they had received these ambulance services free-of-cost with easy access [222].

Effect on health outcomes

The studies did not assess health outcomes.

Summary of results of Papers in the Review

Result measures used in the studies: The CORRECT criteria of Credibility, Observability, Relevance, Relative Advantage, Easy-Transferability, Compatibility, and Testability were used to determine the potential for scaling up the selected transport interventions [222]. The paper assessing vouchers in Uganda included results on the cost of the program and the effect of the program on utilization of health services [223].

Stated effects of the intervention: The effects of the transport interventions in Pakistan were derived from key informant interviews and focus group discussions; from this qualitative data, there is the perception of increased utilization of health services and increased financial protection for women during pregnancy and at birth [222]. In Uganda, health service utilization was reported to increase [223].

Caveats/weaknesses of studies (as reported in the studies): The authors assessing the provision of transport in Pakistan acknowledge a lack of uniform and standard documentation was available for each intervention [222]. In addition, the authors faced limitations in comparing interventions that were not similar and that varied in design, concept, and operationalization. An outstanding question, which these and other similar studies have not assessed, is related to how such schemes could be sustained using locally available resources [223]. Many voucher schemes are often piloted or even implemented using donor funds. Public sector allocations to health may not sustain such a scheme, if it were to be rolled out.

9. Synthesis/Overall Lessons Learned

9.1 How Countries Extend Financial Protection to Underserved and Socially Excluded Populations

This review found 212 papers from 45 different countries describing efforts to extend financial protection to underserved and socially excluded populations. For each of these papers, an underserved or socially excluded population was defined, and an intervention was designed specifically for that population. The process of identifying why a population was not accessing, or fully accessing, financial protection or health services, developing a solution to the barrier(s) faced, and ensuring that the intervention reached the identified population is discussed in this section.

Means of Reaching Underserved and Socially Excluded Populations

The most common underserved and socially excluded population is the poor (other terms include poor, people living in poverty, people below the poverty line, indigent, etc.), which was mentioned in over two-thirds of the papers, with the ‘poorest of the poor’ (or similar) mentioned

in an additional two percent of papers (Table 3). Other common categories include people living in rural, remote, or hard to reach areas (22 percent of papers), children (including newborns and infants) and youth (16 percent of papers), and pregnant women (14 percent of papers). In many cases, the underserved and socially excluded population was the conjunction of two or more of the populations listed in Table 3 (e.g., 'poor women' or 'poor children living in rural areas').

Table 3: Underserved and socially excluded populations mentioned in papers

Underserved / socially excluded population	Number of studies mentioned	Percentage of studies
Poor; below poverty line	143	67%
Rural / Remote	47	22%
Children / youth	34	16%
Pregnant women	30	14%
Informal sector	21	10%
Women	21	10%
Elderly	16	8%
Health status needs*	13	6%
Ethnic minorities	11	5%
Lacking other insurance	5	2%
Migrant workers	4	2%
Poorest of the poor	4	2%
Other	7	3%

**Includes chronic illnesses, HIV, TB, disabilities, etc.*

Definitions within these broad categories differed considerably; the poor could be defined formally as those with a 'below poverty line card' or could be 'as determined by local officials or health facility staff.' Children were defined based on different age cutoffs in different countries (e.g., under five years of age, under six years of age, etc.).

In a few cases, the nature of the underserved and socially excluded population was not clearly defined in the paper but left as 'vulnerable' populations or a similar terminology. However, by and large, papers defined the target population for the intervention and then described the method by which the intervention would specifically reach the target population. Methods of targeting included:

- Geographic targeting: Interventions could be implemented only in rural or remote areas, or in urban slums, with the assumption that the area targeted was populated largely by underserved and socially excluded groups. Geographic targeting is often relatively easy and usually based on existing political boundaries (e.g., districts or similar). While this type of targeting will generally reach an underserved or socially excluded population based on national standards, it may, without further deliberate efforts, not reach the most underserved or socially excluded groups within the target area (see especially Chapters 6.4 and 6.5).
- Targeting Health services intended for the vulnerable population: Interventions may target underserved and socially excluded populations based on enacting changes to health services used by certain populations (e.g., maternal health, young children, HIV services). This may take the form of, for example, a new financing arrangement (such as removal of user fees, pre-payment options, etc.) for the service (Chapter 4.7), or that people using a certain type of service may be eligible for the intervention (e.g., women

utilizing antenatal care automatically being enrolled in health insurance (Chapter 4.5) or people using HIV services receiving cash transfers) (Section 7). While straightforward in the identification of the targeted population, use of services as a method for identifying the population does not automatically achieve high coverage levels in the target population [13, 39].

- Use of other social programs: The intervention may rely on pre-existing mechanisms (such as below poverty cards issued by other sectors of the government) or programs (such as micro-credit programs) to define the underserved and socially excluded populations. This often allows for economic or other definitions to be employed that the health sector does not necessarily have the expertise or resources to develop. This method also helps to ensure that health programs are in line with other social programs and allows for a consistent definition of populations across sectors. This may also be a 'negative' definition; for example, in Mexico, people without social security were eligible for a government paid premium [93]. The use of other social programs for identification of an intervention's target population depends upon the nature of the intervention, strengths, weaknesses, and formality of the identificatory processes used by the other social programs, the transferability of data and databases between different programs, and the overlap between the goals of the other social programs and the health intervention (see, for example, Chapters 5.6 and 6.4). The weaknesses of the identification processes used by other social programs will carry over into the health program; these weaknesses include misidentification of the target population and infrequent updating of the identification process (See Chapters 4.4 and 5.6).
- Build a new targeting mechanism: The intervention may require a method for identifying the underserved and socially excluded population that it targets and for enrolling them to be eligible for the intervention. For example, the social health insurance scheme may be tasked with identifying those eligible for government-paid premiums. There are multiple methods for identifying underserved and socially excluded populations and different agencies, stakeholders, or levels of government may be involved in the process (see Chapters 4.7, 4.8, and 5.6). The process involves determining the criteria, updating them as needed, and monitoring their effectiveness during implementation. For example, underserved and socially excluded populations may be broadly defined, but the intervention then has outreach or messaging campaigns that target specific sub-populations (see, for example, Chapter 5.9). Like use of other social programs, building a new targeting system may classify people as eligible for the intervention that should not be, and may miss people that should be eligible for the intervention. Developing targeting mechanisms may, depending on the mechanism, also be expensive to set up and operate.

In addition to the method of targeting used, decisions also may need to be made about the unit of targeting – individual, household, village, and district-level targeting are all possible (and, in fact, not mutually exclusive categories since, for example, a village may be determined to be eligible but then households or individuals need to actively enroll). Each of these may miss certain underserved and socially excluded populations. Individual enrollment may target specific individuals for an intervention but may suffer from selection bias, and the elderly, children, women, etc. may not be enrolled depending on household dynamics of a particular setting. Household enrollment helps to ensure people within a household that have lower bargaining power will have access to the intervention, but may exclude people not living with their households (such as migrant workers; Chapter 5.2) from receiving the benefits of the intervention or specific vulnerable individuals may not be able to enroll in an intervention, if their larger household does not enroll (e.g., people living with HIV/AIDS may want to enroll in health

insurance but not disclose their reason for wanting health insurance to their household). Larger unit enrollment (village, district) may leave out the most vulnerable if enrollment requires a formal administrative procedure (Chapters 6.4 and 6.5), or the most vulnerable still may not avail themselves of services if specific efforts are not made to alleviate the barriers faced by them. Group targeting may also include people that are not particularly underserved or socially excluded – there is in most cases a trade-off between the accuracy of targeting and cost of identifying people.

However, across the literature found for this review, there do appear to be a few areas of consensus. Household enrollment in interventions is emerging as the preferred method of targeting because it does ensure enrollment of the underserved and socially excluded within households; even some targeting based on use of health services use household enrollment (e.g., enrolling the entire household of a pregnant woman, and not just the pregnant woman). The issues around household enrollment do need to be addressed (e.g., setting up special arrangements for migrant workers or people living with HIV/AIDS), but these issues seem to be secondary to the intra-household dynamics.

Second, in most cases, some degree of monitoring how well an intervention is reaching and being used by a target population is likely necessary, and adjustments to the intervention to ensure higher enrollment of the target population and/or less 'leakage' of program benefits to those outside the target population are likely necessary over time. Social and behavior change activities to address the social and behavioral drivers, shift norms, and support the most vulnerable or underserved to access social protection mechanisms and/or seek accountable, affordable, accessible, and reliable care are frequently needed to encourage uptake of the intervention or actualize increased use of equitable health services. These activities include but are not limited to informational and educational campaigns (Chapters 5.9, 5.10, 6.1, 6.3, and 6.4), outreach (Chapters 4.5, 5.9, and 6.1), 'enrollment camps' (Chapter 4.3), mobile clinics (Chapters 4.2 and 5.1), counseling by specialized staff at health facilities (Chapters 4.3 and 5.9), and other individual, community, and structural approaches.

Third, many studies in this review suggest that medical staff at health facilities are not the best placed to implement mechanisms to identify underserved and socially excluded populations, although interventions that target populations using certain types of health services are an exception to this finding. The weakness of health facilities staff in identifying patients is especially acute when identifying members of the target population is in direct conflict with the interests of the health facility – health facility staff in certain settings may not be eager to identify people who do not need to pay user fees if this means that the health facility will lose revenue (Chapter 4.6). Further, if targeting requires the administration of a certain questionnaire or tool, health facility staff may be too busy or otherwise disinclined to consistently implement the tool.

The Different Types of Barriers to Enrolling Underserved and Socially Excluded Populations

Roughly 80 percent of papers found for this review mention financial barriers to access health care services or financial protection schemes, which reflects the research objective to describe how countries have extended financial protection to underserved and socially excluded populations. In addition to the cost of health services themselves, financial barriers to accessing health care services also include paying for transportation to a health facility, cost of accommodations, meals, etc. for the person or for people accompanying the person to the health facilities. Non-financial barriers to accessing health care services are widely reflected in the broader public health literature (and are mentioned by at least one paper in 19 out of 27 chapters of this review), and include poor quality of health care services, long waiting times at facilities, poor perceived provider behavior (including cultural or gender-based poor behavior),

lack of knowledge among the population on the need for health care services, cultural or language barriers, and distance or access to health services. This last category is related to the financial barrier of paying for transportation, meals, and accommodations associated with accessing care, but represents the 'opportunity costs' of accessing care beyond the direct financial cost. Thus, transport vouchers address the financial barrier of paying for transport (in addition to potentially addressing knowledge barriers; Chapter 8.1), while contracting mobile clinics to reach remote areas (Chapter 4.2) addresses both the financial costs for people to reach health facilities and the non-financial barriers or opportunity costs.

While people have financial barriers to accessing health facilities, they may also have financial barriers to accessing financial protection schemes, and health insurance in particular (although in some cases, certain schemes, such as selling vouchers at a subsidized price or pre-payment for health services, also retain some level of financial barrier to accessing the intervention). Payment for health insurance premiums is the primary financial barrier to accessing health insurance. Health insurance itself may not fully alleviate financial (or non-financial) barriers to accessing health services, since the degree of financial protection depends on the benefit package/service coverage, amount of co-payments, ceilings, deductibles, and other design features of the insurance. The non-financial barriers to accessing health facilities may also hinder enrollment in financial protection. For example, people are less willing to enroll in health insurance if they believe that the health care provided under the insurance is of low quality, health facilities are far from their places of residence, or they do not believe they need health services. Additionally, these factors reflected in the financial protection scheme may represent non-financial barriers to enrollment in financial protection schemes. For instance, people will not enroll in insurance if the insurance itself is perceived to be of poor quality: late payments, frequent refusals of claims, limited benefit package, small network of providers associated with the scheme, rude insurance staff, or insurance staff who are difficult to reach or communicate with. Long enrollment times, excessive or confusing administrative procedures for enrollment or claiming of benefits, lack of knowledge of insurance or the need for health insurance among the target populations, and cultural and linguistic barriers can also affect financial protection schemes.

Thus, many of the interventions found for this review in part address, or attempt to address, financial barriers to accessing care or financial protection schemes. However, as discussed more in Chapter 9.2, many also included activities to address non-financial barriers. Commonly, this included some sort of information and education component, but as noted above, could also include outreach, door-to-door campaigns, and activities like enrollment camps.

Intervention Design Decisions

The multiple and often competing barriers, coupled together with concerns of limiting the cost of the intervention or ensuring financial viability, serve as the basis to inform the multiple decisions about how to design an intervention. Bonfert, et al. (2015) provide an overview of the design decisions related to insurance [71]; all of the interventions found for this review share similar (although not always identical) design decisions. They often represent trade-offs; for example, greater benefits for the target population to entice enrollment, increase use of health services, and improve overall health must be balanced against the cost of the program, financial health of the program, and ability of health service providers to deliver the benefits. As such, there are often no 'correct answers' to the design decisions, but the decisions must be made in the context of a particular health and socioeconomic system. Even where there seems to be some consensus in the literature found for this review, such as household enrollment (as discussed above in the first section of this chapter) it is not clear that this consensus is applicable in all cases. Even if it were, the decision is likely not optimal for all sub-segments of the target population.

With the above caveats, we highlight some of the additional intervention design decisions to defining the target population common across many of the interventions.

1. *Whether to include the private health service delivery sector*: Contracting, subsidizing insurance, reimbursing medical expenses, performance-based financing, prepayment of services, removal of user fees, service vouchers, social health insurance, and community-based health insurance all potentially could involve private sector health service delivery providers (and, potentially, which types of providers to include). In many cases, private sector health service providers are perceived by the target population as providing better quality health services and may be more accessible to the population. The extent to which the private health sector can further the goals of the intervention needs to be balanced against the costs and ability of the intervention to engage with the private sector.
2. *Whether to include the cost of transportation*: Many of the interventions (in addition to those listed in Chapter 8) had some examples including a specification for addressing the financial (and in some cases, non-financial) barriers associated with the transportation of people to health facilities, including conditional cash transfers, contracting, removal of user fees, vouchers, social health insurance, and community-based health insurance (the latter two of which can include transportation to health facilities or for referral as a claimable expense). While carrying with it a cost, provision of or payment for transport can also encourage enrollment in financial protection and/or access to health services. The extent to which transport is a barrier for the population targeted by the intervention should also be considered.
3. *Timing and sufficiency of payments*: This decision point is covered as well in Bonfert, et al. (2015) [71], but involves two aspects. First, collecting payments from people (e.g., insurance premiums) is typically more affordable if spread out over time, but administratively more complicated and burdensome if, for example, membership is monthly instead of annually. To some extent, electronic payments have simplified this process, but there still needs to be a decision about what to do in the case of non-payment or similar situations. Related, payments to health service providers can be monthly, annually, or on some other schedule, which may influence providers' behaviors. Second, the amount of payments from (e.g., for premiums or prepayment schemes) or to people (for cash transfer programs) or health service providers (for insurance, user fee exemptions, subsidies of insurance, etc.) are often made in situations with little information as to either the adequacies of the payment to influence behaviors or ensure quality health services are provided to people. Monitoring and updating decisions about the amount of payments, as well as development of robust information systems [113], are likely needed in many cases. These observations are also reflected in Digital Finance Services for Health: A Global Evidence Review. Although digital financial services facilitate financial protection when electronic payment systems are shared across a large group of people and can contribute to improving health systems performance, there is still a need to fund additional studies to examine how models can be used to develop robust information systems and sustainably advance UHC [224].
4. *Who will implement the intervention*: Often, especially but not exclusively for the interventions in Chapter 5, decisions have to be made about who will be responsible for different aspects of an intervention. These decisions can include the degree of decentralization (which level of government(s) is funding the intervention, which is implementing the intervention), which parts of the government are responsible (e.g., social health insurance agency, Ministry of Health, Ministry of Finance) for different aspects of the intervention, and to what extent other stakeholders (NGOs, international development partners, local organizations, etc.) will be involved in the design,

implementation, and monitoring of the intervention.

9.2 Interventions Used to Overcome Barriers

This review identified 27 different interventions used to extend financial protection to underserved and socially excluded populations (Table 4). It should be noted that there is substantial variation within the intervention categories, and in some cases the classification of papers into a particular intervention class was not fully clear. However, the different intervention categories allow us to summarize and discuss the findings of the literature search. As discussed above, understanding the design decisions, reasons for design decisions, and the merits of these different possibilities in a particular context are crucial for the resulting activities to be successful in extending financial protection.

Many of these interventions are designed explicitly to overcome financial barriers to accessing health services or for enrolling certain groups of the population in some type of health insurance schemes, but some address non-financial barriers (including contracting, performance-based financing, changing the benefit package, consolidation of separate schemes, cross-subsidization between schemes, inclusion of the private sector, liaisons/communication systems between insurance and beneficiaries, and linking enrollment with other poverty reduction programs). Furthermore, many of the interventions addressing financial barriers also included activities addressing non-financial barriers as part of the intervention's focus. For example, in the Philippines, the government paid premium subsidy for social health insurance was accompanied by the provision of information about insurance to enrollees, such as follow-up reminders and household visits [96] (which is also assessed in Chapter 5.9). Many of the interventions assessed in these papers included an informational component. Additionally, many of the interventions designed to increase demand for health services or health insurance (including, for example, conditional cash transfers, prepayment for defined services, removal of user fees, vouchers, and linking health insurance to other social programs) also included a component to improve the quality of health services available to the targeted populations. Given the simultaneous implementation, it is difficult to disentangle the effects of a single component of an intervention from the effects of the combined package of activities.

Table 4: Number of studies and results, by intervention

Intervention	Chapter	Number of studies	Summary of results for*:			
			Enrollment / access§	Use of health services	Financial Protection	Health Outcomes
Government schemes						
Conditional cash transfer	4.1	4	Improved (1/1)	Improved (3/3)	Improved (1/1)	--
Contracting	4.2	5	Improved (2/2)	Improved (5/5)	No effect (0/1)	--
Government buys or subsidizes insurance	4.3	13	Improved (2/3)	Mixed (3/4)ß	Improved (6/8)	Mixed (2/3)
Government reimbursement of medical expenses	4.4	3	No effect (0/2)	--	Mixed (1/3)	--
Performance-based financing	4.5	3	--	Improved (3/4)	--	Mixed (1/2)
Prepayment for defined services	4.6	1	Mixed (1/1)¥	Improved (1/1)	--	No effect (0/1)
Removal of user fees	4.7	26	Mixed (1/3)	Improved (9/12)	Improved (6/8)	Improved (3/3)
Vouchers	4.8	2	Mixed (1/2)±	Improved (2/2)	--	--
Social health insurance						
Alternative means of paying premium	5.1	2	Mixed (1/3) ±±	**--**	--	--
Alternative ways for paying co-payments if out-of-network	5.2	1	--	**Improved (1/1)**	--	--
Change benefit package	5.3	14	Improved (1/1)	Mixed (4/8)	Improved (7/9)	Improved (1/1)
Consolidation of separate schemes	5.4	2	--	Mixed (1/2)	Improved (1/1)	--
Cross-subsidization between schemes	5.5	1	--	Improved (1/1)	Improved (1/1)	--
Government pays premiums and/or copayments	5.6	63	Improved (26/27)	Improved (24/30)	Improved (37/48)**	Improved (6/6)
Government subsidy of insurance/premium	5.7	9	Improved (2/2)	Improved (5/7)	Improved (5/9)	--
Inclusion of private sector	5.8	1	--	--	Mixed (1/1)	--
Liaisons/communication systems between insurance and beneficiaries	5.9	5	No effect (1/3)	--	Improved (1/1)	Improved (1/1)
Linking enrollment with other poverty reduction programs	5.10	1	Improved (1/1)	No effect (0/1)	--	--
Community-based health insurance						
Community-based health insurance	6.1	30	Mixed (4/13)	Improved (15/17)	Improved (9/9)	No effect (1/4)
Change benefit package	6.2	1	Improved (1/1)	Improved (1/1)	No effect (0/1)	Improved (1/1)
Improve management	6.3	1	Improved (1/1)	--	--	--
Linking health insurance to other social programs	6.4	10	Improved (1/2)	Mixed (2/4)	No effect (0/5)	--
Subsidy on premiums	6.5	3	Improved (2/2)	No effect (0/1)	--	--
Cash transfers						
Conditional	7.1	4	Improved (1/1)	Improved (2/2)	--	Improved (3/3)
Loans/in-kind	7.2	1	--	--	--	No effect (0/1)
Unconditional	7.3	7	--	No effect (1/3)	--	Improved (4/6)
Transport						
Transport	8.1	2	--	Improved (2/2)	--	--

Table 4 Notes:

* Numbers in parentheses represent the number of papers that found a desirable outcome (increased enrollment, increased use of health services, better financial protection, or improved health outcome) over the number of papers that included an outcome measure related to the type of result. Thus, 2/2 would mean that 2 out of 2 papers found a desirable outcome, while 0/2 would mean that 2 papers had outcome measures related to this result but neither paper reported a change in the outcome associated with the intervention.

§ Increased access to health services or increased enrollment in a financial protection scheme, as relevant for the intervention.

-- Denotes that the result area was not discussed in the papers.

β Four papers from the same scheme showed no improvement in the use of health services, therefore, those four papers are counted as one in the denominator.

¥ Low enrollment, <25% of eligible people enrolled.

±One paper presented the results from two voucher programs, therefore, the denominator is two to account for the two programs.

±±One paper reported results from two different interventions, therefore, the denominator is three to account for the two programs in one paper, with results from the second paper also included.

** The same paper may be counted multiple times when the paper included multiple measures of financial protection.

The evidence of many of the interventions found for this review is mixed; even when most papers report favorable results (e.g., 26 out of 27 papers assessing government paid premiums and/or copayment effects on enrollment in insurance and 9 out of 12 papers assessing removal of user fee effects on health service utilization reported favorable results), there were exceptions that suggest that no or few interventions will work in all settings or are not susceptible to implementation failures. While the results found for this review are uniformly positive (as is the case for conditional cash transfers, alternative means of paying premium, alternative ways for paying co-payments if out-of-network, cross-subsidization between schemes, linking enrollment with other poverty reduction programs, improve management, and transport), in most cases the number of papers found for this review is small, and results should not be viewed as conclusive.

Taken together, the co-mingling of activities with interventions, the simultaneous implementation of multiple interventions, and the mixed results from many of the interventions at different times or in different settings suggest that no single effort is sufficient to fully provide adequate financial protection to underserved and socially excluded populations. In many cases, for example, while the financial protection measured increased, catastrophic or impoverishing health payments did not disappear altogether in the targeted population. While assessing the effectiveness of single interventions remains crucial for determining whether it is working in a particular context, the results also indicate that finding the right mix of interventions, and activities within interventions, is also crucial for alleviating barriers to financial protection and accessing health services. The activities implemented in many of the interventions found for this review further suggest that activities to address both supply-side (e.g., availability, accessibility, and quality of health care services) and demand-side (underserved and socially excluded populations' knowledge, attitudes, ability, and capacity to enroll in financial protection schemes and access health services) barriers may have better chances to succeed.

However, with these caveats in mind, some of the interventions found stand out both because of the number of papers reviewed that assess them and because of the consequent strength of evidence that support them.

- In settings where there is sufficient number and competition between private health insurance schemes and sufficient health services, having the government buy or subsidize private insurance does seem to help provide financial protection to underserved and socially excluded populations, although the effect of private insurance on people's utilization of health services and health outcomes is less certain.

- Removal of user fees has a wide literature, which is reflected here, but removing user fees along with ensuring sufficient quality of health services can be an effective means of providing financial protection, increasing the use of health services, and improving health.
- Changing the benefit package of health insurance by itself has fairly mixed results; likely, ensuring that the changes are relevant to the targeted population, communicating the changes in the benefit package and what the changes mean for beneficiaries, and ensuring the quality of services related to the changes are also necessary.
- Having the government pay the premiums and/or copayments for certain targeted populations, especially when done in a way that allows automatic or very easy enrollment for that population, has typically increased enrollment in health insurance, increased use of health services, and provided financial protection. In a few settings, it has been associated with improved health.
- Community-based health insurance has also been widely studied elsewhere, and results in this study reflect the broader literature – while community-based health insurance can accrue enrollment and the subsequent benefits of insurance, it also typically does not achieve universal enrollment, may miss the most vulnerable portions of a population, and may have trouble maintaining financial sustainability if not subsidized.

It should be noted that while this review employed systematic methods to identify relevant papers, it was not intended to find all papers on all the given topics. As such, this review presents interventions that have received sufficient maturity and interest to warrant scholarly review and evaluation, and does not present all of the possible methods of providing financial protection to underserved and socially excluded populations. Topics of more recent interest and interventions that have systemically not worked, as examples, are likely to not be covered in this review. Further, while this review does summarize and to a limited extent synthesize results and lessons learned across the papers found, it does not evaluate the quality of the evidence or perform any sort of meta-analysis of the results. Some of the interventions found for this review have already had meta-analyses or could potentially have meta-analysis done, but it is beyond this review to conduct formal meta-analyses. While this review does present overall study designs used in the papers assessing the interventions, it does not assess the quality of the studies themselves. Interested readers should consider accessing the articles for interventions of interest to further understand the strengths and weaknesses of the evidence around each intervention.

As countries continue on the path towards UHC, addressing health inequities and expanding financial protection schemes to include the underserved and socially excluded groups is a critical, albeit complicated, step. The lessons around targeting and intervention design from countries who have already tried to expand coverage and reduce financial and non-financial barriers are critical resources to leverage and utilize in the quest for protecting individuals from catastrophic financial risk.

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Annex A: Search Terms Used

Terms Used for PubMed Database

Restrictions

1. Publication year: Since year 2000 ("2000/01/01"[Date - Publication] : "3000"[Date - Publication])

⇨ **17,968,295 records** in PubMed

2. Article type: Books and Documents[Filter] OR Case Reports[Filter] OR Clinical Study[Filter] OR Clinical Trial[Filter] OR Comment[Filter] OR Comparative Study[Filter] OR Journal Article[Filter] OR Meta-Analysis[Filter] OR Observational Study[Filter] OR Randomized Controlled Trial[Filter] OR Review[Filter] or Systematic Review[Filter] OR Technical Report[Filter] OR Validation Study[Filter]

⇨ **30,367,448** records in PubMed

3. Language: English[Language] OR French[Language] OR Spanish[Language]

⇨ **27,764,610** records in PubMed

Search Terms

Search 1: Low and middle income countries

"Afghanistan" OR "Albania" OR "Algeria" OR "Angola" OR "Antigua and Barbuda" OR "Argentina" OR "Armenia" OR "Azerbaijan" OR "Bahamas" OR "Bahrain" OR "Bangladesh" OR "Barbados" OR "Belarus" OR "Belize" OR "Benin" OR "Bhutan" OR "Bolivia" OR "Bosnia and Herzegovina" OR "Botswana" OR "Brazil" OR "Burkina Faso" OR "Burundi" OR "Côte d'Ivoire" OR "Cape Verde" OR "Cambodia" OR "Cameroon" OR "Central African Republic" OR "Chad" OR "Chile" OR "China" OR "Colombia" OR "Comoros" OR "Congo" OR "Costa Rica" OR "Croatia" OR "Cuba" OR "Democratic Republic of the Congo" OR "Djibouti" OR "Dominica" OR "Dominican Republic" OR "Ecuador" OR "Egypt" OR "El Salvador" OR "Equatorial Guinea" OR "Eritrea" OR "Eswatini" OR "Swaziland" OR "Ethiopia" OR "Fiji" OR "Gabon" OR "Gambia" OR "Georgia" OR "Ghana" OR "Grenada" OR "Guatemala" OR "Guinea" OR "Guinea-Bissau" OR "Guyana" OR "Haiti" OR "Honduras" OR "India" OR "Indonesia" OR "Iran" OR "Iraq" OR "Jamaica" OR "Jordan" OR "Kazakhstan" OR "Kenya" OR "Kiribati" OR "Kyrgyzstan" OR "Laos" OR "Lebanon" OR "Lesotho" OR "Liberia" OR "Libya" OR "Madagascar" OR "Malawi" OR "Malaysia" OR "Maldives" OR "Mali" OR "Marshall Islands" OR "Mauritania" OR "Mauritius" OR "Mexico" OR "Micronesia" OR "Moldova" OR "Mongolia" OR "Montenegro" OR "Morocco" OR "Mozambique" OR "Myanmar" OR "Burma" OR "Namibia" OR "Nauru" OR "Nepal" OR "Nicaragua" OR "Niger" OR "Nigeria" OR "North Korea" OR "Oman" OR "Pakistan" OR "Palau" OR "Papua New Guinea" OR "Paraguay" OR "Peru" OR "Philippines" OR "Rwanda" OR "Saint Kitts and Nevis" OR "Saint Lucia" OR "Saint Vincent and the Grenadines" OR "Samoa" OR "Sao Tome and Principe" OR "Senegal" OR "Seychelles" OR "Sierra Leone" OR "Solomon Islands" OR "Somalia" OR "South Africa" OR "South Sudan" OR "Sri Lanka" OR "Sudan" OR "Suriname" OR "Syria" OR "Tajikistan" OR "Tanzania" OR "Thailand" OR "Timor-Leste" OR "Togo" OR "Tonga" OR "Trinidad and Tobago" OR "Tunisia" OR "Turkey" OR "Turkmenistan" OR "Tuvalu" OR "Uganda" OR "Ukraine" OR "Uruguay" OR "Uzbekistan" OR "Vanuatu" OR "Venezuela" OR "Vietnam" OR "Yemen" OR "Zambia" OR "Zimbabwe"

⇨ **4,762,318** records in PubMed

⇨ Restrictions plus search 1: **3,806,432** records in PubMed

AND

Search 2a: Topic financial barriers

"financial protection" OR "financial risk" OR "payment" OR "catastrophic" OR "fees" OR "impoverishment" OR "poverty" OR "financial constraint"

⇨ **156,585** records in PubMed

OR

Search 2b: Topic non-financial barriers

"non-financial barriers" OR distance OR behavior* OR knowledge OR enrollment OR trust OR [Cultur* & not lab*], OR transport* OR accommodation OR discriminat* OR attitude OR stigma OR bureaucra*, engage*

⇨ **2,388,293** records in PubMed

⇨ 2a or 2b: **2,523,931** records in PubMed

⇨ Search 1 and Search 2: **490,011** records in PubMed

AND

Search 3: Topic financial protection

"Health insurance" OR "protection" OR "security" OR "financial risk" OR "Prepayment" OR "pooling" OR "schemes"

⇨ **592,543** records in PubMed

⇨ Search 2 and Search 3: **22,128** records in PubMed

AND

Search 4: Topic vulnerable populations

"universal" OR "vulnerable" OR "equity" OR "equitable" OR "marginalized" OR "at risk population" OR "poverty" OR "rural" OR "poor" OR "inequality" OR "Sex difference" OR "sex differences" OR "gender identity" OR "race" OR "ethnicity"

⇨ **1,212,559** records in PubMed

⇨ Search 3 and Search 4: **5,083** records in PubMed

2 records identified as duplicates in EndNote = **5,083 final number of titles**

Terms Used for World Bank Open Knowledge Repository:

**Conducted the following advanced searches*

Search 1: Combined Search Terms (entered as "Title Contains")
(("Financial protection" OR "financial risk" OR "payment" OR "catastrophic" OR "fees" OR "impoverishment" OR "poverty" OR "financial constraint") OR ("non-financial barriers" OR "distance" OR "behavior" OR "knowledge" OR "enrollment" OR "trust" OR "Cultur*" OR "transport* OR "accommodation" OR "discriminat*" OR "attitude" OR "stigma" OR "bureaucra*" OR "engage*")) AND ("Health insurance" OR "protection" OR "security" OR "financial risk" OR "Prepayment" OR "pooling" OR "schemes") AND ("universal" OR "vulnerable" OR "equity" OR "equitable" OR "marginalized" OR "at risk population" OR "poverty" OR "rural" OR "poor" OR "inequality" OR "Sex difference" OR "sex differences" OR "gender identity" OR "race" OR "ethnicity")
Search 2: Document Type

- Document Type equals Publications & Research

Search 3: Keyword

- Keyword Contains health

Search 4: Document Type

- Document Type Not Contains viewpoint

Search 5: Date

- Publication Date Contains "2000" "2001" "2002" "2003" "2004" "2005" "2006" "2007" "2008" "2009" "2010" "2011" "2012" "2013" "2014" "2015" "2016" "2017" "2018" "2019" "2020"

Search 6: Keyword

- Keyword Contains “financial protection”
- ⇨ **RESULTS = 938**

Search 7: Document Type

- Document type Not Contains speech

RESULTS = 934

Search: Title

- Title Contains health

RESULTS = 400