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FCDO POLICY BRIEF – INTERVENTION EFFECTS ON HEALTH-RELATED FINANCIAL PROTECTION IN LMICS

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Box 1. Policy recommendations for improving health-related financial protection

1. Financial protection in healthcare is complex and influenced by a multitude of factors, including individual, household, and social dynamics, local contexts, the nature and cost of illness, and the quality and accessibility of healthcare services, as well as broader health system structures like financing and regulation. Therefore, there is no single intervention type which is consistently "best" at addressing health-related financial protection. Rather, effective interventions should target or at least account for all these dimensions, adapt to context, and pre-empt and address structural challenges.
2. Financial protection should be an explicit policy objective, monitored in a disaggregated way for a wide range of interventions.
3. Intervention design should be comprehensive, addressing both demand- and supply-side factors. Interventions should aim to expand access to health care services and related interventions whilst containing overall costs and prices of health service provision.
4. Equity should be an explicit objective of financial protection interventions, including by addressing structural barriers. Monitor equity outcomes of all interventions which aim to address financial protection.
5. Consider supportive system features which fit with wider normative guidance when designing interventions, such as broadening risk pools, increasing population awareness of benefits, and having effective monitoring and adaptation.

1 BACKGROUND

In recent years, development funding and domestic health budgets have faced increasing pressures, posing a challenge for sustained progress towards universal health coverage (UHC).

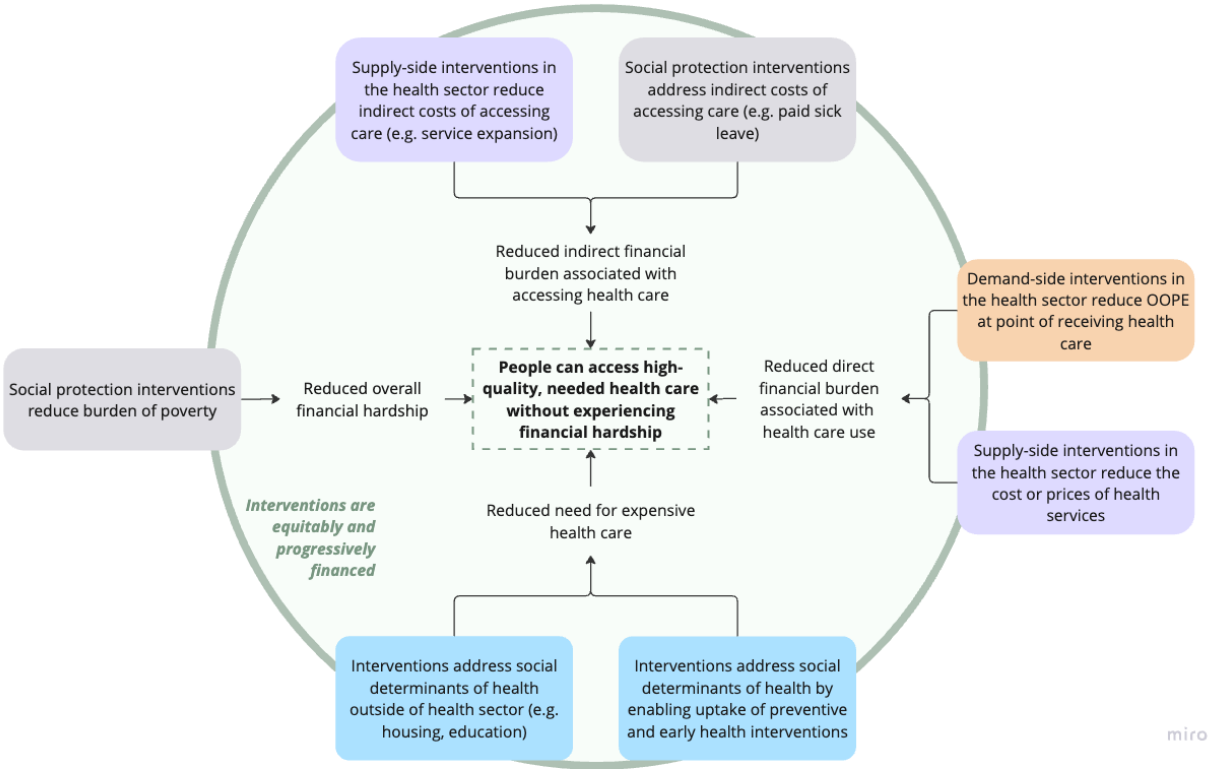
Financial protection, defined as 'the ability to consume needed quality healthcare without experiencing financial barriers to access nor financial hardship due to out-of-pocket health spending' (World Health Organisation and International Bank for Reconstruction and Development, 2021), is essential to achieving the goal of UHC. It is also one of two key indicators at the heart of Sustainable Development Goal 3.8[1]. However, despite global commitments, financial protection is consistently getting worse. 2 billion people are at risk of

[1] SDG indicator 3.8.2 is measured as the proportion of the population with OOP health spending exceeding 10% and 25% of total household expenditure or income. The total population with impoverishing health spending includes people impoverished (pushed below the poverty line) and further impoverished (already below the poverty line but pushed even further below) due to OOP health spending.

financial hardship, and relative poverty as a result of out-of-pocket payments is climbing upwards (World Health Organisation and International Bank for Reconstruction and Development, 2021).

This policy brief aims to support the UK government's Foreign, Commonwealth and Development Office (FCDO) and other stakeholders at global and country level to identify effective approaches to improving financial protection from health spending and better understand the factors that affect the success of different interventions. The policy brief is grounded in research from a rapid review of the published literature which was carried out between May and December 2024.

Multi-pronged approaches to improving financial protection



2 FINDINGS FROM THE EVIDENCE REVIEW

Interventions which have been studied for their effects on financial protection can broadly be categorized as addressing:

- Demand-side or supply-side factors specific to the health sector;
- Social determinants of health affecting non-medical factors that influence health outcomes, health needs and health seeking behaviours; and
- Social protection interventions which address household or individual income and financial security.

Our evidence review of 214 studies from low- and middle-income countries (LMICs) between 1999 and 2024 reveals diverse impacts on financial protection outcomes like out-of-pocket expenditure (OOPE), catastrophic health expenditure (CHE), impoverishment, service use and equity (See Table 1). Many studied interventions act across multiple intervention categories (see Table 2), in particular targeting both demand and supply side factors specific to the health sector.

Table 1. Financial protection outcomes

Indicator	What it measures and why it matters
Out-of-pocket expenditure (OOPE)	• Direct payments households make for care (sometimes including non-medical costs like transport/food) • High OOPE signals gaps in coverage and affordability, especially when measured at population level) • Most commonly reported outcome (74% of studies)
Catastrophic health expenditure (CHE)	• When health spending exceeds a defined share of household income/expenditure • Indicates risk of financial shock and displacement of other essential household expenditure • Thresholds (what share of spending is considered CHE) varied across studies
Impoverishment	• Households pushed below (or further below) the poverty line due to health costs • Highlights poverty impacts of inadequate financial protection
Service use	• Patterns of health care utilization, including reduced or foregone care for financial reasons • Shows whether protection improves access, though increased use can also raise system costs
Equity	• Distribution of financial protection across groups (e.g. analysis by income quintiles, or via concentration indices) • Not reported in many studies, and where it was reported, the findings were often mixed or negative, underscoring the need for explicit consideration of equity in intervention design, implementation and monitoring

Key finding 1: A wide range of interventions to improve financial protection have been studied in LMICs. Studied interventions mostly focused on measures within the health sector, like insurance schemes, and broader policies (particularly those acting outside the health sector) were understudied. Studies reported intervention effects on various financial protection outcomes, most commonly OOPE.

Health insurance schemes were the most frequently studied intervention type, accounting for over half of the included records. These included Social Health Insurance (SHI), Publicly-funded Health Insurance (PFHI), and Voluntary Health Insurance (VHI), including Community-based Health Insurance (CBHI). There was substantial variation between studied insurance schemes with regards to contribution models (e.g. who pays the premium, cost-sharing requirements), target populations, benefit package design, and implementation. There was also variation in intervention design and implementation across other intervention types, as well as

variation in how the main outcomes (OOPE, CHE, impoverishment, service use, and equity) were defined and measured, contributing to variation in reported outcomes.

The literature has notable gaps concerning interventions targeting revenue mobilization, resource allocation, governance arrangements (such as provider autonomy or regulation of the private sector), and social determinants of health. Despite their potential impact, these areas remain underexplored in terms of their direct effects on financial protection outcomes.

OOPE was the most frequently reported outcome. Interventions aimed at vulnerable populations, such as demand-side financing, user fee reforms, and PFHI, were most likely to show reductions in OOPE. In contrast, supply-side reforms like changes to payment models or service delivery showed more mixed effects, likely due to their more indirect impact on household spending. CHE and service use outcomes were also commonly reported, but results were mixed. Some studies showed both beneficial and harmful effects within the same outcome type, often depending on how the outcomes were measured. Impoverishment was less frequently assessed but where it was reported, interventions generally showed positive results against this outcome. Equity outcomes were reported in only 28% of studies and raised concerns. Even targeted pro-poor interventions often failed to deliver equitable benefits, with studies finding that in some cases even interventions targeting the poorest groups unintentionally excluded others.

Key finding 2: Interventions can lower overall health care costs, which supports financial protection, by guiding patients to cheaper services and curbing provider cost-shifting.

Evidence on the cost and financial sustainability of financial protection interventions remains limited. Interventions affected overall spending on health care through both demand and supply-side. For example, SHI schemes in Vietnam (Axelson et al., 2009), India (Aggarwal, 2010; Parmar et al., 2023), China (Xiong et al., 2018), and Georgia (Zoidze et al., 2013) drove patient demand for and use of costlier, higher-level or private care. Meanwhile, other interventions, in particular payment reforms, sometimes prompted supplier-induced demand and other behaviours that raised costs for households and health systems, potentially indicating that providers sought to offset revenue losses from cost-containment measures (He et al., 2017; Li et al., 2018; Wu et al., 2022, 2022; Zhang et al., 2022).

Key finding 3: No single type of intervention, even those targeting the poor, consistently delivered equitable financial protections.

No single intervention consistently ensures financial protection. Outcomes were shaped by context, structural factors, and how interventions were designed and combined. These factors affected both implementation and the success of interventions. Table 2 summarizes key findings for each intervention category and some challenges mediating each category's beneficial effects. Pre-emptive attention to how systemic features are likely to shape implementation and outcomes is important, along with strategizing about how to manage the political economy of policy adoption (World Health Organization, 2024).

Table 2. Summary of findings and challenges by intervention category

Intervention	Description	Findings	Challenges
Demand-side financing	Focused on directly addressing healthcare costs for patients through mechanisms like conditional cash transfers, healthcare vouchers, direct reimbursement, zero-interest loans, and insurance premium subsidies.	Generally reduced financial hardship for targeted populations, often leading to lower OOPE, decreased CHE, and increased healthcare utilisation.	Structural barriers, indirect costs (e.g. transport, informal payments), and inequitable access mitigated beneficial outcomes.
User fee reforms	Focused on directly affecting healthcare costs for patients through full or partial fee removal, targeted exemptions, or hospital-based discounts.	Led to reductions in OOPE, CHE, though impacts varied.	Often failed to address systemic challenges like informal payments. Indirect costs and costs of medicines also undermined impact.
Behaviour change	Studied via one intervention: Kangaroo Mother Care in India	Showed positive effects, such as lower OOPE, reduced risk of impoverishment, increased awareness, and uptake when combined with other interventions.	Limited research on behaviour change as a primary intervention. Effects on CHE were not significant.
Upgrades to health facilities	Not usually studied separate from accompanying interventions (e.g. insurance schemes or user fee reforms), making it difficult to isolate their specific impact on financial protection outcomes.	Only one study focused on upgraded facilities as the main intervention and found increased use of formal care.	Study found that uninsured populations might avoid services which became more expensive.
Shift in service delivery organisation and funding	Includes strengthening primary healthcare (PHC), hospital reform, and alternative care settings.	Mixed results for OOPE and service use, with infrequently studied effects on impoverishment and CHE.	Some interventions worsened equity outcomes, with wealthier individuals often benefiting disproportionately.
Provider payment reforms	Encompasses performance-based financing (PBF), capitation, diagnosis-related groups (DRGs), and bundled payments.	Varied effects: some reduced OOPE and improved access, while others increased costs and inequities. Effects on impoverishment and CHE were rarely studied.	Outcomes varied within and across countries. Adverse consequences included supplier-induced demand (e.g. increased hospital admissions), cream-skimming, provider opportunism, and declining service quality.
Reducing cost and increasing	Include policies for coverage and price negotiation of specific	Specific drug inclusions into reimbursement	Mixed implementation and results, with some showing

Intervention	Description	Findings	Challenges
access to essential medicine	medicines, subsidies for vulnerable populations (e.g. equity funds in Madagascar), and broad national policies like zero-markup pricing (e.g. National Essential Medicines System (NEMS) in China).	packages often reduced OOPE and improved utilization. Broader reforms sometimes had mixed results and unintended equity or cost effects.	little or unintended negative impacts.
Social protection	Aimed to address individual or household incomes. All identified studies in this category focused on cash transfers.	Did not affect OOPE or CHE indicators, and impoverishment was not examined. Positively impacted service use by reducing financial barriers.	Limited scope, often focused on cash transfers.
Complex reforms	Involved multi-component interventions that combine supply- and demand-side measures. China's Health Poverty Alleviation Programme (HPAP) was a notable example of a successful multi-sectoral reform that addressed structural inequities to improve financial protection and equity. This program addressed supply and demand side factors within the health sector, but also social determinants of health and social protections outside of the health sector.	Mixed results, with more consistently beneficial effects from multi-pronged reform addressing elements within and outside of the health sector. China's HPAP showed consistent positive impacts on reducing CHE and impoverishment, alongside increased service use. Other complex reforms which were more narrowly focused within the health sector, yielded mixed results.	Equity impacts were inconsistent, with vulnerable groups facing mixed outcomes. Context played a critical role in reform success.
Insurance-related reforms			
PFHI	Often voluntary, non-contributory or heavily subsidized, and typically target specific population segments, such as the poor.	Mixed but generally beneficial effects on all outcomes.	Mixed findings reflected program design, implementation quality, and infrastructure variations. Impact was often mediated by implementation gaps or provider behaviours that drove up costs (e.g. some schemes shifted healthcare utilisation toward costlier services).

Intervention	Description	Findings	Challenges
VHI	Include schemes that are voluntary and may be owned by communities, non-state actors, or private entities	Mixed results, reflecting the variation among VHI schemes.	Challenges included exclusions from benefits, client preferences, medicine shortages, and low enrolment.
SHI	Predominantly government-led and subsidized schemes which are theoretically compulsory, and aim to cover the whole population.	Outcomes were highly varied due to diverse designs and subnational implementation differences.	Varied results reflect multiple revisions to SHI schemes. Low reimbursement rates diminished financial protection.
Insurance integration	Included evaluations of merged or integrated health insurance programs and broader assessments of multiple schemes within a country.	Generally positive results for service utilisation and impoverishment but mixed for OOPE, CHE, and equity.	Few studies assessed effects on impoverishment. Some studies noted increased inequality in healthcare access.
Expanded benefits package	Aimed to improve financial protection by broadening coverage or increasing compensation levels beyond base insurance.	Typically led to increased utilisation. Results were mixed on OOPE and CHE, but more positive on impoverishment and equity.	Complex interplay of utilisation and financial protection made results unpredictable. Some programs failed to reduce inequities in CHE, or created new vulnerabilities.

2.1.1 LOCAL CONTEXT SHAPED INTERVENTION IMPLEMENTATION AND OUTCOMES

Broader macroeconomic conditions affect intervention impact. For example, Iran's Health Transformation Plan showed limited or negative effects partly due to economic instability, inflation, sanctions, and declining oil revenues during its implementation, which constrained public funding (Ahmadnezhad et al., 2019; Darvishi et al., 2021; Homaie Rad et al., 2017; Malekroudi et al., 2023). Conversely, Türkiye's health financing reforms were positively influenced by economic growth after 2000 (Yardim et al., 2014).

Geographic and sociocultural contexts further shaped results: mountainous terrain in Yunnan, China hindered service delivery in rural communities (Huang et al., 2023), while cultural preferences in Bangladesh contributed to low enrolment in CBHI schemes (Ahmed et al., 2020).

2.1.2 HEALTH SYSTEM AND STRUCTURAL FACTORS CAN MEDIATE BOTH DEMAND FOR AND ACCESS TO INTERVENTIONS

Systemic inequities often excluded the most marginalized, even in the case of targeted schemes. For example, in Uganda, a zero-interest loan programme aided poorer households within targeted community groups but excluded more marginalized people that were not part of such groups (Nannini et al., 2021). Additionally, SHI schemes often benefited poorer, rural, or informal sector populations less than wealthier groups, even when they were formally covered. Richer households received more reimbursements under SHI in China (Wagstaff et al., 2009; Wang et al., 2018) and in the Philippines despite having lower need (Caballes et al., 2012).

Indirect costs undermined the effectiveness of demand-side interventions in particular. Demand-side financing and user fee reforms, despite their aims, frequently struggled to benefit the poorest due to persistent indirect costs like transport, food, and informal payments, which were rarely covered by the interventions. These costs also posed barriers to access that enabled wealthier households to use and benefit more from interventions than poorer households. For example, in China wealthier households used more services and received greater reimbursement under medical insurance schemes, and inpatient care benefits were concentrated among richer groups (Wagstaff et al., 2009; Wang et al., 2018). In India, women benefiting from a conditional cash transfer programme incurred significant OOPE for travel to distant eligible facilities, despite closer non-designated options (Gopalan et al., 2012).

Supply-side health system readiness also constrained uptake and quality. Factors like insufficient healthcare infrastructure, lack of supplies, drugs and equipment, low availability and quality of the health workforce posed challenges to intervention success across settings (e.g. China (Dai et al., 2016; Ma and Xu, 2022; Zhu et al., 2024), Lao PDR (Bodhisane and Pongpanich, 2022), India (Ahmed and Mahapatro, 2023; Parmar et al., 2023), Nepal (Sunny et al., 2021), Sierra Leone (Edoka et al., 2016), and Zambia (Masiye et al., 2016)). Such challenges hindered service delivery, eroded trust in interventions, and discouraged participation or enrolment in interventions like insurance schemes. Lack of awareness of insurance benefits also limited uptake of such interventions.

2.1.3 MULTI-PRONGED ADAPTIVE APPROACHES ARE NEEDED TO SUSTAIN FINANCIAL PROTECTION AND AVOID UNINTENDED COSTS AND INEQUITIES

Improving financial protection in health care requires context-sensitive, multi-pronged interventions with ongoing adaptation to mitigate inequities and unintended costs as a result of misaligned incentives.

Policy components such as pricing and access interact during reform and must be addressed together. For example, health insurance schemes combining supply- and demand-side elements showed more positive outcomes: in Thailand, expansion of SHI alongside investment in public facilities and quality assurance reduced impoverishment, CHE, and inequities (Somkotra and Lagrada, 2008). In China, regions implementing SHI through demand-side reforms only (benefit expansion) without cost-containment policies, experienced significant increases in OOPE, even for enrollees, while those prioritizing cost containment without also expanding benefits increased OOPE among the uninsured (Liu et al., 2023), reinforcing the need for interventions that target all components that can contribute to financial protection.

The benefits of multipronged interventions were especially pronounced in studies of China's Health Poverty Alleviation Programme (HPAP), an initiative which aimed to alleviate multidimensional poverty by addressing both supply and demand side elements in the health sector, as well as factors beyond the health sector, including social protections (Chen and Pan, 2019; Huang et al., 2023; Li et al., 2023; Tang et al., 2023). Whilst HPAP led to consistent reductions in financial hardship and positive equity effects, other complex reforms in China (Cui et al., 2024; Huang et al., 2018; Liu et al., 2021; Tang et al., 2023; Xu et al., 2019, 2018), Cambodia (Ensor et al., 2017), and Iran (Ahmadnezhad et al., 2023; Esmaeili et al., 2021) that focused mainly within the health sector yielded mixed outcomes. This suggests that broader structural factors shape financial protection, and that targeting vulnerable populations with health-sector interventions alone is insufficient.

Source: Witter, S., Kruja, K., Brikci, N., Bertone, M. (2025) Improving healthcare-related financial protection in low- and middle-income countries: a rapid evidence review. Report for FCDO.