



Health Financing for Universal Health Care in challenging times: Leaving no-one behind

Key Achievements and Progress

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Foreword

Countries world-wide have endorsed the concept and ambition of universal health coverage (UHC) – ensuring that everyone can access the health services they need, when and where they need them, without financial hardship. Yet progress towards UHC is rarely linear.

Since 2022, health systems have continued to face “challenging times”: the aftershocks of the COVID-19 pandemic, fiscal tightening and inflationary pressures, rising burdens of non-communicable diseases, military conflicts and intensifying climate-related risks. In many settings, these forces have heightened the tension between growing health needs and constrained public resources. It was in this context that we formed HFACT – Health Financing for Universal Health Care in challenging times: leaving no-one behind – to generate practical, policy-relevant evidence on how health financing systems can remain resilient, equitable, and at the same time deliver UHC.

We chose to focus on Brazil, India, Indonesia, and South Africa because they are large, diverse middle-income countries with federal structures that have made ambitious commitments to UHC, while also confronting persistent inequalities, fragmented systems, and complex governance arrangements. Together, they represent different health system models and reform pathways, across multiple world regions, and include substantial populations who remain vulnerable to catastrophic out-of-pocket spending and unequal access to quality care. Just as importantly, HFACT builds on long-standing collaborations with leading national research partners and policy networks in each country – relationships that enable rigorous analysis to be combined with real-world policy engagement and relevance.

HFACT’s work is organised around four policy themes:

1. raising resources for health,
2. advancing effectiveness and equity in resource allocation,
3. ensuring healthcare access for left-behind groups, and
4. governance and intersectorality.

We address these themes through complementary methods areas including policy impact evaluation, equity analysis, economic evaluation/decision analysis, and political economy analysis. Across all strands, our focus is on the same practical question: on the path of accelerated progress towards UHC, what works, for whom, and under what conditions, especially for those most likely to be left behind?

Over the duration of the project, our objectives are to: produce actionable, policy-relevant research; strengthen capacity in health economics and health financing for decision-making among researchers and policymakers; develop and sustain coalitions with stakeholders (including civil society); and engage with international organisations to share findings and inform global debates on UHC.

This brochure highlights our achievements and progress to date (September 2022–March 2026), including emerging evidence, policy engagement, and capacity strengthening across the Unit. We hope it continues to spark dialogue, supports decision-making, and contributes – directly and indirectly – to more equitable and sustainable pathways towards UHC.

Marc Suhrcke and Indrani Gupta
HFACT Joint Lead Principal Investigators

Aims and Objectives

1

Produce policy-relevant research and innovative health economics methods to address major health financing challenges.

2

Strengthen capability in using health economics or financing for decision-making among academic researchers and policymakers.

3

Strengthen and develop stakeholder coalitions with policymakers, civil society partners and the public to improve the relevance and quality of health policies.

4

Engage with international organisations and decision makers to share findings, foster global uptake and influence global UHC policies.

Roadmap

2022

Project Inception

2023

Inaugural Research Workshop in South Africa

2024

HFACT Researcher Training Week
Inaugural HFACT Online Research Showcase
In-Person Advisory Board Workshop

2025

Research Workshop and HFACT / World Bank Roundtable Discussion

2026

HFACT Online Research Showcase
In-Person Advisory Board Retreat
Research Workshop in Brazil and Policy Roundtable Event

2027

Project Closure and Dissemination

Policy Themes

HFACT research outputs are organised into four policy theme areas. The themes were developed in conjunction with a coalition of stakeholders in each country to both reflect their national priorities and strongly resonate with the most relevant regional and international health policies.

1

Raising resources for health

Raising sufficient resources for health is a major barrier for LMICs to make progress towards UHC. Expanding domestic fiscal space for health is vital, and is determined by macroeconomic conditions, prioritisation of health within government budgets, health sector-specific resources (e.g. earmarked funds from taxes), foreign aid, and technical and allocative efficiency.

2

Advancing effectiveness and equity in resource allocation

Health care systems face seemingly unlimited need for interventions that improve health, but have limited resources. Economic evaluation can inform resource allocation on the basis of both efficiency and equity criteria.

3

Ensuring and funding access to healthcare for left behind groups

Marginalised groups are especially vulnerable to impoverishment from catastrophic Out of Pocket Expenditure, leading to increased health inequalities and worsened health outcomes. Understanding inequalities across broader left-behind groups is key for documenting disparities and driving policy change. Better documentation of health, access to healthcare and health financing for these groups is needed.

4

Governance and intersectorality

Fragmented health systems in all four countries have created several issues including corruption, lack of coordination between national and regional systems and ineffective strategic purchasing (e.g. funding decisions designed to maximize health objectives through active, evidence-based funding).

Methods Areas

The use of economic approaches, methods and arguments can contribute substantially to the effectiveness of health financing. In applying innovative health economics methods to the challenges raised by stakeholders, the Unit aims to inform health system strengthening reforms which can lead to better access to health care and improved health for all citizens.

1

Policy Impact Evaluation

- Cutting edge quantitative methods to exploit a range of routinely collected data.
- Causal impact evaluations that show who is affected by a policy and what difference it makes.

2

Equity Analysis

- Measuring who benefits from health financing to highlight opportunities to improve the health of left behind groups.
- Identifying which policies exacerbate inequalities, and which can reduce it.
- Generating knowledge about the equity impact of expanding universal health coverage.

3

Economic Evaluation and Decision Analysis

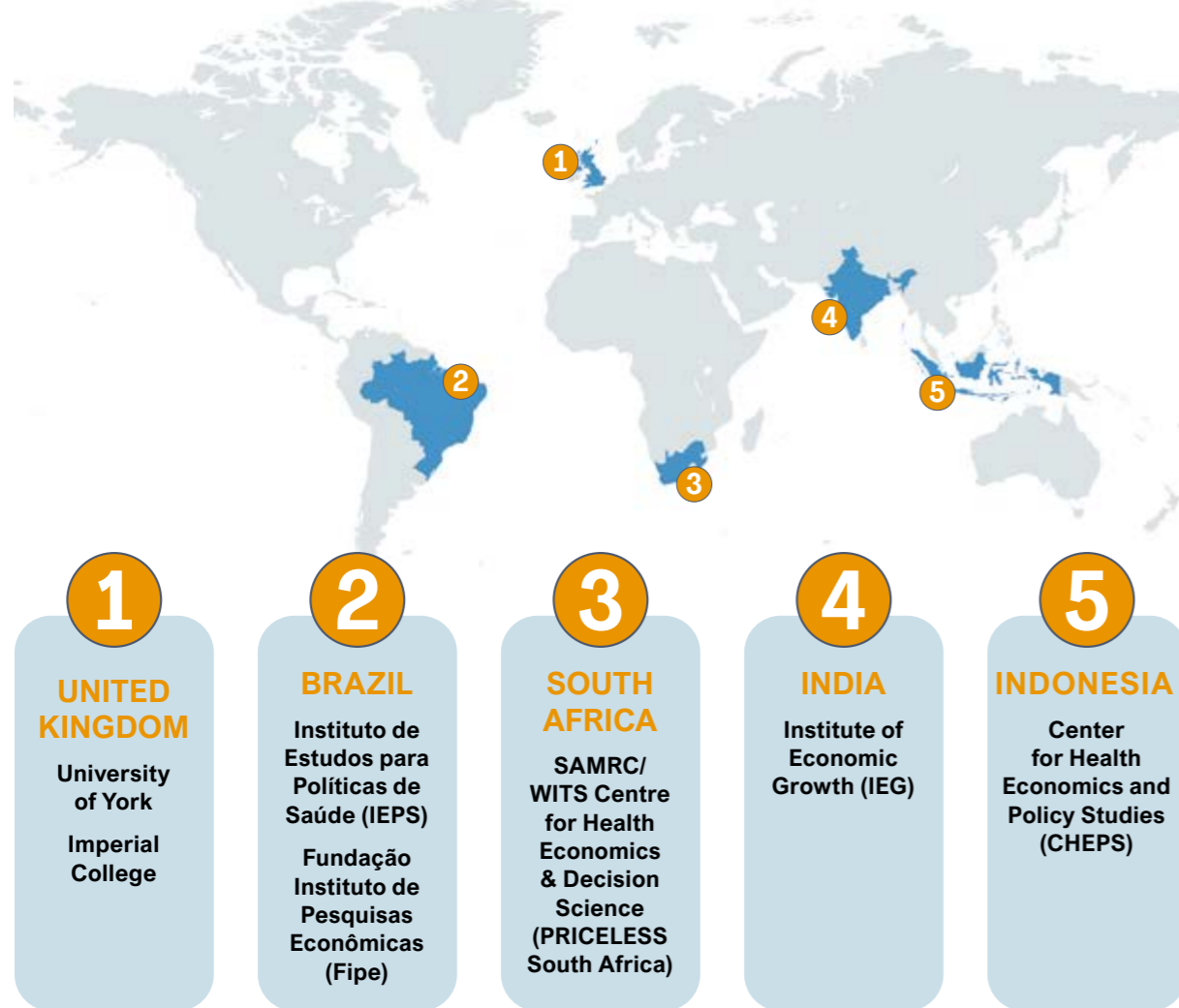
- Cross governmental analysis of costs and benefits demonstrating overall value and policy relevant trade-offs.
- Informing the design of efficient and equitable health benefits packages.
- Generating knowledge about which effective policies are worth investing in.

4

Political Economy Analysis

- Understanding political and institutional drivers of health system reforms.
- Explaining how much power key actors and decision-makers have, and why, in influencing different stages of health system policy-making and implementation.

Meet the Team



Our Reach at a Glance

HFACT researchers are actively involved in many networks across the world, advising policymakers and global health funders on key issues of health financing. For example:

Formal advisory roles and committee membership

Members of the PRICELESS team were invited to collaborate with the Ministerial Advisory Committee for the National Department of Health, to support the development of Health Technology Assessment (HTA).

A Fipe researcher was invited to join the Brazilian Ministry of Health as Director of the Department of Economics and Health Development (DESID). Their new position serves as a valuable bridge between academic research and national health policy

Involvement in strategic consultations and technical development

The CHEPS team was invited to join a national consultation on Actuarial Cost Modelling for the Social Security Fund's evaluation and projection.

High-level presentations and policy dialogues

The IEPS team has presented research findings on the private management of public hospitals (OSS model) to key bodies, including the Federal Court of Accounts and the Ministry of Health.

Leveraging project research for policy input

IEG provided feedback on the Health Expenditure survey conducted by the National Sample Survey Office, on the basis of a similar survey conducted by the NIHR India team in Meghalaya.

Our Network

- Luxembourg Institute of Socio-Economic Research
- Indian Statistical Institute, Delhi
- Azim Premji University, Bhopal
- Indian Institute of Public Health, Shillong
- Presidency University, Kolkata
- Centre for Social and Economic Progress (CSEP)
- Dr. B.R. Ambedkar University, Delhi
- Charité – Universitätsmedizin Berlin (PhD student)
- University of Edinburgh
- O.P. Jindal Global University
- NIHR Health Financing Fragmentation and Universal Health Coverage in Brazil, Colombia, Mexico and India
- World Bank
- International Institute for Sustainable Development
- Universitas Brawijaya, Indonesia
- Universitas Padjajaran, Indonesia
- Ministry of Health of the Republic of Indonesia
- BPJS Kesehatan (Social Health Security Agency of the Republic of Indonesia)
- Ministry of Social Affairs of the Republic of Indonesia
- University of São Paulo

Research Impact Since Inception





Brazil

Research Spotlight

Inequality in Access to Breast Cancer Treatment in the Unified Health System in Brazil

Breast cancer remains the leading cause of cancer-related mortality among women in Brazil, placing significant pressure on the Unified Health System (SUS). Timely access to diagnosis and treatment remains a persistent challenge. **Long waiting times reflect coordination failures across different stages of care and contribute to late diagnoses, worse health outcomes, and higher treatment costs. These inefficiencies disproportionately affect vulnerable populations and regions with weaker health system capacity, reinforcing existing inequalities.**

In 2022, Brazil introduced the National Breast Cancer Patient Navigation Program (Law No. 14,450), a nationwide initiative designed to improve care coordination and ensure timely access to diagnosis and treatment. Implemented in 2023, the program assigns trained professionals to guide patients through the health system, reduce administrative barriers, and support compliance with legal timeframes for treatment initiation. The policy has since been expanded to cover all cancer types, reflecting its strategic importance within the SUS.

Delays in cancer care carry high human and economic costs. Late-stage diagnosis significantly reduces survival rates and increases the complexity and cost of treatment. While improving coordination can enhance access and outcomes, it may also increase short-term expenditures by bringing previously unmet demand into the system. The policy trade-off is therefore not between cost and efficiency, but between inefficient rationing through delays and more equitable, timely care. Addressing these bottlenecks is essential to advancing universal health coverage (UHC) goals in Brazil.

This study provides robust causal evidence on the effects of patient navigation using nationwide administrative data. The results show that the program reduced waiting times for radiotherapy by approximately 10 days, indicating improved system responsiveness. However, it also led to a 16.5% increase in radiotherapy costs, likely reflecting expanded access to care among previously underserved patients. The impacts are uneven across regions, with stronger gains in more developed areas and limited improvements where health system capacity is more constrained.

Patient navigation should be scaled as a core strategy to improve care coordination and reduce delays in cancer treatment. However, its effectiveness depends on adequate supply-side capacity. Policymakers should align navigation programs with targeted investments in infrastructure, workforce, and service availability – particularly in underserved regions. Short-term increases in spending should be anticipated and interpreted as a necessary step toward improving access and equity. Over time, earlier treatment may generate cost savings and better health outcomes. To maximize impact, policies should prioritize reducing regional disparities and ensuring that navigation services reach the most vulnerable populations.

Public Services under Private Management

The implementation of Brazil's "Organizações Sociais de Saúde" (OSS) model offers a transformative hybrid governance framework that reconciles private sector efficiency with the equity mandates of Universal Health Coverage.

Within the Sistema Único de Saúde (SUS), the state has long struggled with rigid administrative laws and centralized procurement that create operational bottlenecks, leading to low productivity and substantial unmet demand. A critical policy development occurred with Federal Law 9,637 and subsequent state legislations, which allowed existing public hospitals to transition from direct government administration to management by private non-profit entities. This shift is vital because hospital care accounts for nearly 35% of Brazil's public health expenditure; thus, addressing the "quantity-quality trade-off" is essential for sustainable health financing. The opportunity cost of the status quo is measured in human lives, as traditional rigidities limit access for underserved populations. The OSS model addresses this by transferring management to non-profits while the state retains asset ownership and control over surplus rights, removing incentives for the socially inefficient cost-cutting often seen in full privatization.

Evidence indicates that OSS management leads to a 40% increase in hospital admissions and a 23% rise in bed turnover without deteriorating risk-adjusted mortality or equity. These gains are driven by managerial discretion over personnel, specifically the ability to hire specialized physicians under flexible contracts and dismiss low-productivity staff, which clears queues and reduces population-level mortality by 3%, especially in underserved areas. Importantly, benefits are most pronounced when hospitals are managed by organizations with high managerial capacity, as flexibility alone is insufficient without capable leadership.

We recommend that policymakers expand hybrid management models as a tool for health financing, provided that the selection of private partners is tied to demonstrated expertise. By maintaining public financing while leveraging private operational agility, governments can maximize the "value for money" of health budgets, ensuring efficiency gains are reinvested into service volume and patient outcomes to accelerate universal health equity.

Recommendations

- By maintaining public financing while leveraging private operational agility, governments can maximize the "value for money" of health budgets, ensuring efficiency gains are reinvested into service volume and patient outcomes to accelerate universal health equity.

India

Research Spotlight

Granular Evaluation of Public Primary Healthcare Accessibility in Rural India

India's primary healthcare system, built around Primary Health Centres (PHCs) and Sub-Health Centres (HSCs), is the intended first point of contact for rural populations. However, access remains uneven due to infrastructure shortages and rising population pressure. This study utilizes the National Health Resource Repository (NHRR) – the first nationwide geocoded census – to assess spatial accessibility through regional availability, distance, and capacity constraints.

The 2018 Ayushman Bharat programme aimed to strengthen the health system by converting PHCs/HSCs into Health and Wellness Centres (HWCs). While this expands the scope of services (e.g., for non-communicable diseases), it primarily upgrades existing buildings. It does not address the spatial gap, as it fails to prioritize constructing new facilities in underserved areas where infrastructure is entirely absent.

Excessive distances and wait times cause patients to postpone treatment, turning minor issues into emergencies, while failing public options force rural residents toward expensive private providers. This increases out-of-pocket expenditure (OOPE) and medical debt, ensuring health outcomes are determined by location rather than medical need. There is a stark disconnect between government mandates and reality. While the IPHS recommends one Primary Health Centre (PHC) per 30,000 people, the rural average is 33,800, with 59% of districts failing these norms.

Furthermore, physical proximity does not guarantee actual care. Even within “average distance” of a PHC, over 20% of villages remain effectively unserved due to capacity constraints. When facilities are overwhelmed, the opportunity cost in lost wages and travel time becomes too high, rendering the infrastructure functionally ineffective. Without addressing these spatial gaps, public health investments will yield diminishing returns.

Call to Action:

- The government should expand physical infrastructure by establishing new PHCs and HSCs in underserved regions. Policymakers must also define the specific administrative level – district or sub-district – for meeting IPHS norms to ensure local shortages are not masked by aggregate data.
- Healthcare planning should incorporate multidimensional accessibility measures that combine population coverage, geographic distance, and facility capacity. Such metrics provide a more accurate representation of effective access. Furthermore, infrastructure must be tailored to regional terrains and population densities rather than using a “one-size-fits-all” model.
- Geospatial datasets like the NHRR should be systematically used to identify underserved areas and guide the precise allocation of new facilities.

Health Investment and Outcomes in Meghalaya, India: A State-Level Comparative Analysis

Universal Health Coverage (UHC) calls for sustained public financing to ensure access to health services and financial protection. Meghalaya, a small, hilly, and tribal state in Northeast India, provides an interesting opportunity to examine the paradox of poor health outcomes despite relatively high levels of government health spending. Government health expenditure in Meghalaya is among the highest in India, accounting for 6% of Gross State Domestic Product (GSDP) and 14% of total government expenditure. Yet key health indicators are of concern. The state's total fertility rate is 2.9, nearly half of children are stunted, and infant mortality remains high at 32.3 per 1,000 live births. These challenges are compounded by widespread multidimensional poverty, particularly in the Khasi and Jaintia districts. Understanding why substantial public investment does not translate into improved outcomes is, therefore, critical for accelerating progress toward UHC in settings like Meghalaya.

Meghalaya has increased government health expenditure significantly since 2011, reaching more than ₹1,600 crore annually. In addition, the Meghalaya Health Insurance Scheme (MHIS), launched in 2012, aims to provide both inpatient and outpatient care to all residents of the state. While these developments signal a strong political commitment, the increased spending and expanded health insurance coverage have not yet produced proportional improvements in health outcomes.

The relatively slow improvement in health outcomes despite sustained high public spending creates significant opportunity costs and raises concerns about the efficiency and equity of health financing. Persistent poor outcomes in fertility, child mortality, and malnutrition – in the broader context of poverty and economic development – underscore the need to evaluate how effectively current investments are being used. Improving the efficiency of health spending, therefore, represents an opportunity to strengthen health outcomes without necessarily increasing total expenditure.

Analysis of government health expenditure data for over two decades across functional and administrative categories, suggest that while overall spending cannot be increased much further, the current spending patterns might be constraining the impact of existing investments. A growing share of expenditure allocated to MHIS (a scheme that is yet to realize its full potential) must be seen in the context of out-of-pocket spending incurred by beneficiaries, particularly when accessing services requires long-distance travel. The analysis also highlighted the need to examine geographic inequalities to determine whether vulnerable districts received equitable levels of health investment.

Four recommendations emerge from this analysis:

- Meghalaya should undertake a comprehensive evaluation of the MHIS to assess whether spending aligns with the state's disease burden and effectively reduces out-of-pocket expenditures.
- Avenues should be explored to integrate MHIS service packages with public facilities to reduce administrative redundancies and realign resource allocation towards secondary care.
- Improving transparency and monitoring of health expenditures would help identify inefficiencies and guide strategic allocation across programs and districts.
- Greater attention should be paid to distributional equity by prioritising vulnerable groups and high-poverty districts.

Indonesia Research Spotlight

Actuarial and Financial Modelling

Universal Health Coverage (UHC) relies on a financing system that is both sustainable and equitable, ensuring access to care without financial hardship. In Indonesia, the Social Health Insurance (SHI) system, Jaminan Kesehatan Nasional (JKN), is central to this goal. However, rising healthcare utilization, increasing medical costs, and limited revenue growth are placing growing pressure on its financial sustainability. To support evidence-based policymaking, the CHEPS-HFACT team, in collaboration with BPJS Health, has developed actuarial and financial modelling tools – most notably the Actuarial Cost Model (ACM) – to assess policy scenarios while balancing fiscal sustainability with equitable access.

Using BPJS claims data, the ACM projects revenues, expenditures, and long-term financial outcomes under different policy conditions. Recent analyses show that JKN has recorded annual deficits since 2023, with shortfalls expected to continue through 2027. Although earlier surpluses strengthened the Social Security Fund (DJS), these reserves are declining and may turn negative without intervention. Meanwhile, healthcare spending continues to rise sharply, particularly hospital payments under DRG-based systems (INA-CBGs), which account for over 85% of total claims.

Sustaining SHI is critical to preserving healthcare access and protecting individuals from financial risk. Persistent deficits risk reducing service quality, delaying provider payments, and increasing fiscal pressure, ultimately threatening the viability of UHC. The cost of inaction is substantial. In contrast, timely and well-designed reforms can improve efficiency, stabilize financing, and maintain equitable access.

Actuarial evidence points to a set of complementary policy options. These include introducing targeted cost-sharing to manage utilization, revising benefit pricing using improved DRG costing methods, strengthening strategic purchasing, and adjusting contribution rates – estimated at around IDR 88,100 per member per month – to narrow the financing gap. While each measure contributes to sustainability, no single intervention is sufficient; a coordinated policy mix is required.

A comprehensive approach is therefore essential. This involves implementing cost-sharing while safeguarding vulnerable groups, gradually increasing contributions, refining benefit pricing, and strengthening purchasing mechanisms. Institutionalizing actuarial modelling will further enable continuous, evidence-based decision-making. Together, these measures can stabilize the Social Security Fund, reinforce financial sustainability, and ensure equitable healthcare access.

The findings from this work were presented at the organized session “Actuarial and Financial Modelling for Universal Health Coverage: A Case Study of the World’s Largest Single-Payer System” at the IHEA World Health Economics Congress in Bali on 23 July 2025. The research has also been consolidated into a book published by the University of Indonesia in 2026, contributing to global knowledge on sustaining large-scale health systems.

Sustaining Social Health Insurance is critical to preserving healthcare access and protecting individuals from financial risk.

Innovative Health Financing for Marginalized Populations

Many low- and middle-income countries (LMICs) are expanding demand-side health financing (DSF) programs, such as subsidized health insurance and conditional cash transfers, to improve access for vulnerable populations. In Indonesia, subsidized health insurance for the poor (PBI) and the conditional cash transfer program (PKH) aim to reduce financial barriers and promote the use of essential maternal health services. A major policy shift from fossil fuel subsidies toward DSF programs reflects a stronger commitment to equitable health financing. While individual programs have delivered modest results, evidence on their combined impact, cost-effectiveness, and equity implications has been limited. Recent research by the CHEPS-HFACT team, presented at the Organized Session of the IHEA World Congress in Bali, addresses this gap using advanced econometric methods and panel data to evaluate the synergistic effects of integrating these programs.

Integrated interventions significantly enhance maternal health-seeking behaviors

The findings show that combining PBI and PKH produces substantially stronger outcomes than implementing either program alone. Integrated interventions significantly enhance maternal health-seeking behaviors, with over 40% increases in outpatient visits, skilled deliveries, and facility-based births. They also improve financial protection by reducing delivery costs and lowering out-of-pocket expenditures. These results highlight the importance of policy integration in maximizing both health and economic benefits. Rigorous evaluation methods, including generalized propensity score weighting and multivalued treatment models, ensure accurate and reliable impact estimates. Extending these evaluations to incorporate cost-effectiveness and equity analyses captures broader social benefits, including improved education outcomes, productivity gains, and reduced health inequalities.

Addressing this issue is crucial for advancing Universal Health Coverage (UHC) and reducing disparities in healthcare access. Without effective coordination, DSF programs risk limited impact and inefficient use of public resources. The opportunity cost of inaction is high, as poorly targeted interventions may divert funding from more effective strategies. In contrast, integrated and well-designed programs can substantially improve health outcomes, strengthen financial protection, and ensure that public spending reaches those most in need.

Ongoing work by CHEPS-HFACT, in collaboration with the Ministry of Social Welfare and the CHE York-HFACT team, is extending this research through economic evaluation of multiple DSF subsidies. This includes analyzing trends in subsidy disbursement, membership coverage, and program costs, while developing robust empirical methods to assess value for money and social impact. These efforts provide policymakers with actionable guidance for prioritizing resources across sectors and population groups.

A comprehensive, evidence-based approach is essential. Expanding integrated PBI and PKH programs should be prioritized to leverage their synergistic effects. Policymakers should continue applying rigorous evaluation methods, while incorporating cost-effectiveness and equity considerations into policy design. Strengthening cross-sector collaboration will further capture broader social benefits beyond health. Together, these strategies can enhance healthcare access, improve financial protection, and ensure that public investments deliver maximum value for marginalized populations, supporting sustainable progress toward UHC.

South Africa

Research Spotlight

Priority Setting for Universal Health Coverage in South Africa

South Africa is moving toward universal health coverage through the implementation of the National Health Insurance Act. A central challenge in this process is determining which health services should be included in the national benefits package given limited public resources. **Historically, health spending decisions in South Africa have not always been guided by systematic priority-setting processes. As the country works to expand coverage, there is a growing need for transparent and evidence-based approaches to determine which interventions should be publicly funded.**

The adoption of the National Health Insurance Act has intensified discussions on how benefits will be defined and how resources will be allocated within the health system. The policy environment increasingly recognises the role of Health Technology Assessment in supporting these decisions. However, institutional arrangements and methodological approaches for HTA are still evolving in South Africa.

Without structured priority-setting, health systems risk allocating scarce resources to interventions that provide limited health benefit while more cost-effective services remain underfunded. This results in significant opportunity costs, including reduced population health gains and inefficiencies in public spending. Establishing an evidence-based approach to defining an essential benefits package can improve transparency, accountability, and fairness in decision-making while ensuring that the greatest possible health gains are achieved with available resources.

PRICELESS SA has conducted research on approaches to developing an essential health benefits package and on the use of HTA methods to support priority setting in South Africa. This work includes identifying appropriate decision criteria, exploring social values relevant to health resource allocation, and assessing available data sources needed for HTA analyses. These studies provide a framework for systematically evaluating health interventions based on factors such as cost-effectiveness, equity, and financial risk protection.

Policymakers should institutionalise HTA processes to support the design and ongoing revision of the NHI benefits package. This includes establishing clear governance structures for HTA, incorporating social values into decisions, developing national methodological guidelines, and ensuring access to high-quality health and cost data. Strengthening local capacity in economic evaluation and decision analysis will also be essential to support sustainable priority setting as the NHI evolves.

Health Taxes as a Tool for Financing Universal Health Coverage

Achieving universal health coverage requires sustainable financing. South Africa faces growing fiscal pressures, rising healthcare costs, and increasing burdens of non-communicable diseases. Identifying new revenue sources that simultaneously improve public health has become an important policy consideration.

In recent years, South Africa has implemented the Health Promotion Levy, a tax on sugar-sweetened beverages aimed at reducing excessive sugar consumption and preventing obesity and associated diseases. This policy has demonstrated the potential for fiscal measures to address health risks while at the same time generating government revenue.

Non-communicable diseases such as diabetes place substantial financial pressure on the health system and contribute to rising healthcare expenditures. At the same time, government budgets face competing demands across sectors. Health taxes present an opportunity to both reduce disease risk factors and generate additional resources for health spending. Failure to explore such policy options may result in missed opportunities to strengthen the sustainability of health financing for UHC, and decreasing the burden of NCDs.

PRICELESS SA has produced research examining the potential role of health taxes in South Africa, including modelling studies assessing taxes on products such as fruit juice. These analyses estimate the potential health benefits of reduced sugar consumption as well as the revenue that could be generated. The findings suggest that carefully designed fiscal policies can contribute to both disease prevention and health financing.

Policymakers should consider expanding the use of health taxes as part of a broader strategy to finance universal health coverage. This includes evaluating additional fiscal measures targeting products that contribute to diet-related diseases and ensuring that tax policies are supported by strong evidence on health and economic impacts.

Recommendations

- Policymakers should consider expanding the use of health taxes as part of a broader strategy to finance universal health coverage. This includes evaluating additional fiscal measures targeting products that contribute to diet-related diseases and ensuring that tax policies are supported by strong evidence on health and economic impacts.

Global Research Spotlight

The Impact of Health Aid on Financial Risk Protection

Universal Health Coverage (UHC) aims to ensure all individuals receive high-quality health services without suffering financial hardship. A key metric for UHC is financial risk protection, monitored under Sustainable Development Goal (SDG) 3.8.2. Despite significant investment, the lack of such protection remains a global crisis; **in 2022, approximately 1.6 billion people were pushed into poverty by out of pocket health expenditures.** In low-income countries, Development Assistance for Health (DAH) accounts for approximately 30% of total health expenditure. While DAH is known to improve service coverage and reduce mortality, there has been a lack of evidence whether it actually reduces the financial burden on households.

Over recent decades, DAH has grown substantially in value and complexity, with an increasing number of entities providing aid. However, as of early 2026, the global health landscape has fundamentally shifted facing a “perfect storm” of budget contractions, a pivot toward national security-aligned aid, and a push for country self-reliance.

Facing these DAH contractions, evidence is required to understand how best to use the remaining but diminishing DAH. Without evidence-based allocation, large investments in health care through DAH may fail to reach the most vulnerable and achieve their stated aims. There is also a risk of the “incomplete coverage” if DAH makes a new service (like surgery) available but does not cover the full cost, households may stop forgoing care and start paying out-of-pocket, paradoxically increasing their risk of impoverishment. Solving this is important for achieving SDG commitments.

Gabani et al (2024) provides the first large-scale empirical evidence on the association between DAH and financial risk protection, although the analysis was conducted before the collapse of development assistance for health in 2025.

Gabani et al highlighted a key policy message that channelling aid through recipient government systems (“on-budget”) is significantly more effective at improving financial risk protection than aid delivered through non-governmental channels (“off-budget”). Moving away from fragmented, off-budget projects toward government systems is associated with a 0.68 percentage point improvement in catastrophic health expenditure. Evidence shows DAH is most effective when focused on the bottom 20% of the population, where a \$1 increase in per capita aid correlates with reduced impoverishment. Shifting ODA on budget may raise concerns with donors but these could be addressed by linking them to the quality of Public Financial Management systems, using established tools.

DAH should be shifted to government systems with aid channelled through national financial structures to enhance local ownership and support national insurance schemes. Explicitly targeting the poor would ensure DAH replaces out-of-pocket costs for those with the lowest ability to pay. Extending DAH efforts beyond maternal and child health to address the needs of older populations would provide improved financial risk protection. Finally, it is important to ensure that supported services are fully financed for the vulnerable to prevent unintended financial shocks.

Fossil Fuel Subsidies and Health Expenditure

Fossil fuel subsidies (FFS) are government measures that keep energy prices below supply costs (e.g., direct budgetary transfers, fixed consumer price mechanisms) and represent one of the largest and most distortionary categories of public expenditure worldwide. In 2022, FFS reached \$1.7 trillion globally, more than doubling in a single year. Despite their enormous fiscal footprint, the impact of FFS on social spending, including health, had never been rigorously quantified at a global scale. Our study fills that gap, providing the first causal evidence, across 126 countries, that rising FFS directly crowds out health expenditure.

Although our analysis covers 2015-2019, the problem has intensified since. Russia’s invasion of Ukraine in 2022 triggered an energy crisis that pushed FFS to record levels. While subsidies fell back somewhat in 2023-2024, they remain well above pre-2022 levels. Now, with conflict in Iran and crude oil prices surging again, governments face fresh pressure to introduce or expand price-shielding measures.

FFS compete directly with health expenditure for fiscal resources. In 2019, 17 countries spent more than 5% of GDP on FFS, and in 15 of those, FFS spending exceeded health spending. Countries with high FFS consistently scored poorly on the WHO’s Universal Health Coverage (UHC) Service Coverage Index. The crowding-out effect is real and measurable:

- A 1% increase in FFS per capita reduces domestic health expenditure per capita by 0.05% (95% CI: -0.08% to -0.02%).
- At average spending levels, each additional \$1 spent on FFS is associated with a \$0.35 reduction in domestic health expenditure per capita.

This is a net effect, already accounting for any economic or health benefits FFS may generate. Both public and private health spending are negatively affected. The impact is consistent across country income groups.

Positive examples exist: Indonesia’s 2014 reform generated savings of nearly 10% of total government expenditure, partly reinvested in health; similar reallocation followed reforms in Ghana, Iran, and Morocco. But sustaining reform is hard. Mahdavi, Ross & Simoni (Nature Climate Change, 2025) tracked the 21 countries with the largest gasoline subsidies from 2016 to 2023: only 30% of reforms survived 12 months, and just 9% survived three years; subsidies rose in 12 of the 21 countries. Crisis moments are precisely when governments historically reverse course, reintroducing subsidies under public pressure without a plan to phase them out.

FFS are not inherently wrong in a crisis; the problem is when they are broad, permanent, and opaque. Any measure to shield consumers from today’s oil price shock should be:

1. Temporary by design: sunset clauses and automatic price-review mechanisms must be built in from the start.
2. Targeted at the vulnerable: broad subsidies disproportionately benefit the wealthy; direct transfers to low-income households are more equitable and less fiscally damaging.
3. Transparent and accountable: citizens should see what is spent, who benefits, and what protections exist for health and social budgets. Public awareness of these trade-offs is essential to create demand for accountability.

FFS reform must remain a priority, accompanied by commitment to reinvest savings in health, especially where UHC is not yet a reality. As international aid for health declines, FFS reform is one of the few available levers to expand domestic fiscal space.

Capacity Strengthening

Joshua Samuel Research Analyst

“My time at the School of Economics, Business and Accounting (FEA-University of Sao Paulo) was nothing short of transformative. Professionally, it refined my career goals and broadened my understanding of healthcare systems, particularly in Brazil. I was fascinated by the Brazilian model and its potential lessons for India. This experience pushed me out of my comfort zone, helping me grow both personally and professionally. The hospitality, expertise, and friendship I received made this trip truly unforgettable.”



Celeste Holden, Researcher

“My trainee exchange from South Africa to York incited a profound change that will impact my trajectory as a researcher long into the future. I have been lucky to have met with so many vastly experienced and knowledgeable people at CHE who have become my new and lifelong network. I have learnt so much in such a small time, including various fields of work within the health economics space, which I was unaware about before as well as various opportunities available.”



Trainee Exchange

Over the past three years, the Unit has facilitated five trainee exchanges, providing pivotal growth opportunities for PhD students and early career researchers. These programs have enabled participants to build international networks, elevate their presentation skills, and collaborate on high-impact, cross-country research initiatives.



Funding PhDs and Training

We have funded 26 early career researchers in 4 years. Researchers have secured PhD positions at the London School of Economics (LSE), the University of Sussex, Charité Universitätsmedizin Berlin and the University of Tasmania. An HFACT researcher was selected for a CINCH fellowship in Health Economics in Germany based on work funded by the project.



Promotions

Team members across the Unit have seen direct career progression within their respective institutions. Several researchers were promoted to Professor or Associate Professor. Others have moved into strategic roles such as Director of Global Health Team, HFACT Methods Lead and Associate Editor for the Journal of Health Economics Policy and Law.



Grant Success

HFACT's legacy is emerging, one of the researchers has secured a £1.5 million grant from the Wellcome Trust and a PhD fellowship funded by the London Interdisciplinary Social Science Doctoral Training Partnership (LISS DTP) to further research on new green transition revenues to advance UHC. Another researcher has transitioned to leading a separate NIHR grant related to racial and ethnic health inequities in collaboration with Brazilian partners.



Delivering courses

HFACT partners have strengthened institutional capacity through delivering courses to academic staff, policymakers and health workers. Examples include:

- Introducing core economic principles to Masters students, health officers, and program managers in India.
- Delivering short courses on priority setting to policymakers in South Africa.
- Applying HFACT research in public policy classes in Brazil.

Dissemination Outputs

As we enter our final year, one of our aims is to translate insights into impact. We continue to develop a suite of resources to ensure our findings reach those who can make a difference – from high-level evidence briefs designed for policymakers to engaging explainer videos that bring our research to the general public.

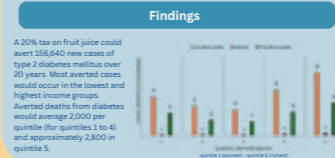
Evidence Briefs

- Decentralising Health: The Potential of Urban Local Bodies in India.
- Do We Value Task Shifting Between Health Workers Appropriately?
- Reaching the Ideal Health Cost-Effectiveness Threshold and its Application for Indonesia: Supply or Demand?
- Targeted Health Aid Matters for Financial Risk Protection
- The Health and Economic Impact of Taxing Fruit Juice in South Africa

The Health and Economic Impact of Taxing Fruit Juice in South Africa

Background
South Africa is experiencing a rise in non-communicable diseases, with diabetes being a major cause of mortality, especially among women. This is partly due to high sugar consumption and obesity rates. In 2018, South Africa introduced a tax on sugar-sweetened beverages (SSBs), known as the Health Promotion Levy (HPL), to combat obesity and diabetes. However, 100% fruit juice was excluded.

Our Study
The study examines the potential health and economic impacts of imposing a 20% tax on fruit juice in South Africa. The team used extended cost-effectiveness analysis to model the potential impact of a 20% tax on fruit juice on diabetes incidence, prevalence, mortality, and financial impacts across different income groups in South Africa.



Explainer Videos

- Strengthening Primary Healthcare Saves Lives
- Taxing Fruit Juice Reduces Disease Burden
- Economic Evaluation of Task Shifting

Findings

Municipalities with **more Community Health Workers** engaged in:

- more effective home-based care
- more health promotion activities
- more vaccination efforts

This resulted in **lower mortality rates** and **better pandemic management**

Policy Engagement



The IEG-HFACT team has collaborated closely with Meghalaya’s Department of Health and Family Welfare since the grant’s inception. Early presentations on health financing to the Principal Secretary and senior officials generated strong interest in addressing key policy challenges. The government not only shared required data but also remained an active research collaborator.

In collaboration with the state of Meghalaya, the team conducted a 2024 survey titled “Health Coverage in Meghalaya: Availability, Accessibility, Affordability, and Quality of Healthcare.” The study examined household health coverage, financial protection, out-of-pocket expenditure (OOPE) reduction, and access to quality care. As one of India’s few states offering comprehensive outpatient (OPD) and inpatient (IPD) coverage, Meghalaya provides a vital case for assessing progress toward universal health coverage (UHC).

At the government’s request, IEG-HFACT analyzed budget-based health financing to resolve the paradox of high expenditures yielding modest outcomes. The Principal Secretary co-authored the resulting paper.

The team is currently evaluating the unique Meghalaya Health Insurance Scheme (MHIS) – covering both OPD and IPD – with state-provided data. Ongoing work on optimization of human resource allocation using geo-tagged patient load data from public facilities is another example of policy engagement with the HFACT team.

Throughout, IEG partnered with the Indian Institute of Public Health (IIPH), Shillong, the state’s research arm. The IIPH Director contributed to several themes, strengthening policymaker engagement. This partnership exemplifies effective researcher-policymaker collaboration and cooperation, which can deliver actionable insights for Meghalaya’s health system.

Community Engagement

In Indonesia, the Diagnosis-Related Group (DRG) system, locally known as INA-CBG, is used to reimburse hospitals providing inpatient and outpatient services to JKN (National Health Insurance) beneficiaries. Since over 80% of JKN funds are disbursed to hospitals via the INA-CBG payment mechanism, policy adjustments regarding these groups significantly influence hospital operations, healthcare delivery, the JKN program, and broader health financing.



The UNU-Grouper (a method for grouping patient care into acute, sub-acute and chronic cases) has remained in use for 14 years without substantial classification updates. Thereby creating potential payment inaccuracies – such as overpayment or underpayment – as the existing classification may no longer align with current medical technological advancements.

Nations implementing DRG-based payments generally encounter two strategic options: developing an original disease classification algorithm (Grouper) or adopting and subsequently modifying an existing grouper from another country. Indonesia mirrored other nations by selecting the latter approach. To refine the disease classification for the Indonesian context, the Ministry of Health initiated a collaboration with medical associations and BPJS Health to develop the iDRG, using patient data that reflects Indonesian clinical practice patterns and resource consumption.

This costing study was led by the Ministry of Health with support from the HFACT Project and the World Bank. The research serves two primary objectives: the establishment of the iDRG and the tariff setting. Generating robust costing data necessitates an adequate sample size, thereby requiring extensive participation from various hospitals. To incentivise hospital engagement, the development of a user-friendly costing template was prioritised. Given that hospital participation remains voluntary, the study adheres to several core principles, including guarantees of data confidentiality, streamlined data entry processes, and the provision of incentives for contributors.

The team collected aggregate cost data from 303 hospitals and detailed costing data from 130 hospitals, ensuring representativeness across ownership types, hospital categories, and regions. This was a capacity building opportunity for the Center for Health Financing within Ministry of Health and hospital stakeholders to strengthen costing analysis and tariff setting for the Indonesian DRG system. The study also employed patient-level costing instead of traditional top-down methods to facilitate a more precise alignment between payments and actual service costs.

Currently, the government is piloting iDRG implementation, with full integration into the JKN payment system scheduled for 2027. Periodic updates to the iDRG classification, ideally every two to four years, are essential to maintain alignment with Indonesia's evolving epidemiological trends and medical technological advancements.

Publications



(September 2022 to March 2026)

Brazil

Racial inequalities in access to healthcare services in Brazil (2019): A decomposition analysis (*BMC Health Services Research*)

What happens to population health when the doctors leave? Evidence from the exit of Cuban doctors in Brazil (*Journal of Health Economics*)

Racial inequalities in mental healthcare use and mortality: a cross-sectional analysis of 1.2 million low-income individuals in Rio de Janeiro, Brazil 2010–2016 (*BMJ Global Health*)

The role of primary healthcare amid the COVID-19 pandemic: Evidence from the Family Health Strategy in Brazil (*Social Science & Medicine*)

Racial inequality in access to cancer care in Brazil: an intersectional analysis with data from SIM-SUS (2011–2023) (*Saúde e Sociedade*)

India

Fiscal space for health in the context of contemporary fiscal reforms in India: A state-level analysis (*Economic & Political Weekly*)

Who Bears the Distance Cost of Public Primary Healthcare? Hypertension among the Elderly in India (*Social Science & Medicine*)

Fiscal federalism, inter-governmental transfers and public health– The case of Urban Local Bodies in India (*SSM Health Systems*)

Gender budgeting in India: an analysis in the context of health and safety of women in India (*Frontiers*)

Granular Evaluation of Public Primary Healthcare Accessibility in Rural India (*Journal of Health Organization and Management*)

Indonesia

Evolution of Health Technology Assessment in Indonesia: Supply Landscape, Implementation, and Future Directions (*Health Systems & Reform*)

Exploring the heterogeneous impacts of Indonesia's conditional cash transfer scheme (PKH) on maternal health care utilisation using instrumental causal forests (*Empirical Economics*)

South Africa

Modelling the potential impact of a tax on fruit juice in South Africa: implications for the primary prevention of type 2 diabetes and health financing (*BMC Nutrition*)

Economic Evaluation of Free Prevention of Mother-to-Child Transmissions (PMTCT) Services to Non-South African Women Living in South Africa (*Health Services Insight*)

Derivation of a South African tariff for the EQ-5D-5L using a personal utility function approach (*International Journal of Technology Assessment in Health Care*)

Costing the National Clinical Guidelines for Prostate Cancer Control and Management in South Africa. A Cost-of-illness Study (*South African Medical Journal*)

Reflecting Social Values in HTA Methods: A Case Study of South Africa (*Applied Health Economics and Health Policy*)

Global

Progress towards universal health coverage and inequalities in infant mortality: an analysis of 4.1 million births from 60 low-income and middle-income countries between 2000 and 2019 (*The Lancet Global Health*)

Does health aid matter to financial risk protection? A regression analysis across 159 household surveys, 2000–2016 (*Social Science & Medicine*)

Are Economic Evaluations of Task Shifting Too Narrow in Focus? A Rapid Review (*PharmacoEconomics*)

The impact of official development assistance for health on health outcomes: a rapid systematic review (*Health Policy and Planning*)

Do Fossil Fuel Subsidies Crowd Out Health Expenditure? A Country-Level Longitudinal Analysis (*Health Economics*)

Cost-effectiveness thresholds in policy and practice: do HTA guidelines align with estimates of health opportunity cost? (*Health Economics, Policy and Law*)

State capacity and health system financing: a cross-country analysis (*BMJ Global Health*)

Presentations

- 46th Brazilian Econometrics Society Meeting
- XXI Research Institute for Development, Growth and Economics (RIDGE) May Forum
- Institute for Fiscal Studies-Asian Development Bank Institute-Global Health Economics Workshop on Health Economics in LMICs
- 4th annual Rosenkranz Global Health Policy Research Symposium at Stanford University
- Annual Congress of the Network of Researchers in Economics 47th Brazilian Econometrics Society Meeting
- XXXVII National Council of Municipal Health Secretaries Congress Brazilian Congress on Lung Cancer in Brasília
- International Health Economics Association Conference
- European Health Economics Association Conference
- Centre De Sciences Humaines (CSH)-AXA International Conference Kautilya Economic Conclave 2023
- Indian Association for Social sciences and Health 2024 IEG Symposium on Towards a Resilient Economy
- Costing Study for Indonesia Case-Based Groups (INA-CBGS) Tariff Setting course
- CHEPS Actuarial Cost Modelling Meeting
- Ministry of Health and World Health Organisation Technical Meeting: Progress of Cost-effectiveness Threshold Analysis in Indonesia from the Supply Side
- Developing South Africa's first quality of life value set to strengthen economic evaluations and health technology assessments stakeholder workshop
- Benefits Package Design Stakeholder Workshop
- National Department of Health Health Technology Assessment Symposium
- SAMRC Health system governance research priority setting workshop
- National Economic Development and Labour Council Workshop
- The International Society for Pharmacoeconomics and Outcomes Research (South Africa Chapter)
- African Health Economics and Policy Association Rome Health Economics Workshop
- The Health Economists' Study Group (HESG)
- Asian Regional Diagnostic Related Group Workshop and Knowledge Exchange
- 53rd Brazilian National Meeting of Economics (Anpec)
- XVIII Latin American Congress of Social Medicine and Public Health University of São Paulo Post-Doc Researchers Congress
- International Seminar on Evaluation in Public Health Policy: Contributions from Implementation Science
- Latin American and Caribbean Economic Association (LACEA) 2025 Annual Meeting
- Portuguese Health Economics Conference



For more information please see our website

