

# PREVENTIVE HEALTH AS FISCAL GOVERNANCE

## Financing Strategies for the Global South

April 2026



# 1. Executive Summary

## The Problem

Behavioural and metabolic risk factors account for nearly half of all global disability-adjusted life years, with low- and middle-income countries (LMICs) bearing a disproportionate and growing share of this burden. Despite the numerous epidemiological and fiscal arguments in favour of proactive rather than reactive policy interventions, preventive health remains chronically underfunded across the Global South, structurally disadvantaged by annual budget cycles that reward immediate expenditure over long-horizon returns.

## The Central Argument

This paper argues that reframing prevention as a central fiscal governance instrument, rather than a mere component of health spending, is both warranted and feasible. The overarching thesis is that health outcomes follow financing structures, and that the fiscal architecture of prevention spending in the Global South requires deliberate reform if epidemiological trends are to be altered at the pace that the scale of the burden demands.

## The Economic Case

The fiscal rationale for preventive investment operates through four distinct channels:

- **Cost avoidance:** Reducing expensive medical treatment costs by preventing disease before onset.
- **Budget stabilisation:** Protecting governments against disease-driven fiscal shocks that crowd out education and infrastructure investment.
- **Productivity protection:** Preserving labour supply and national output by reducing premature adult mortality and disease-attributable morbidity.
- **Pre-distributive protection:** Reducing catastrophic household health spending before financial distress occurs, functioning more efficiently than ex post safety net responses.

## Policy Instruments

Translating this case into durable policy outcomes requires three complementary instruments:

- Integrated tuberculosis and non-communicable diseases programme platforms that exploit shared risk factor profiles and generate economies of scope at the community level.
- Medium-term expenditure framework commitments that protect prevention allocations across budget cycles and against annual re-prioritisation.
- Behaviour taxes calibrated to the concentration of harmful substances (e.g., sugar content in beverages, alcohol by volume) create graduated financial incentives for producers to reformulate and for consumers to shift toward lower-risk products, while also generating domestic prevention revenue.

## Implementation Requirements

These instruments operate through, and depend on, layered delivery systems that must be built and sustained in parallel:

- Surveillance and screening infrastructure to generate the population and individual-level knowledge that prevention depends on.
- Primary care and community health worker platforms through which preventive interventions reach populations at scale.
- Digital and AI tools whose deployment must be governed by interoperability requirements, contextual validation, and full cost-of-ownership analysis.

## 2. Problem Definition: Preventive Health as a System-Level Governance and Fiscal Challenge

### 2.1. The Scope of the Preventive Health Challenge

Preventive health, for the purposes of this report, includes interventions acting upstream of clinical presentation to reduce disease incidence, disease progression, or disease-attributable disability and mortality. This definition deliberately spans multiple disease domains and policy sectors, reflecting the epidemiological reality that the determinants of preventable illness are socioeconomic, environmental, and behavioural in character, and therefore require policy responses that extend well beyond the health ministry.

The Global Burden of Disease Study 2023 estimated that nearly 50% of the roughly 2.80 billion total global disability-adjusted life years (DALYs) in 2023 were attributable to the 88 modifiable risk factors analysed, with the five largest contributors being high systolic blood pressure, particulate matter pollution, high fasting plasma glucose, smoking, and low birthweight and short gestation, with LMICs bearing a disproportionate and increasing share of this burden (GBD 2023 Disease and Injury and Risk Factor Collaborators, 2025). This concentration of preventable risk in the Global South represents both an equity failure and a fiscal hazard.

### 2.2. Non-Communicable Diseases

Non-communicable diseases (NCDs) are now the dominant cause of morbidity and mortality in most countries of the Global South, including many that retain significant communicable disease burdens. NCDs, like cardiovascular disease, type 2 diabetes, cancers, and chronic respiratory diseases, are projected to account for a growing share of premature mortality in LMICs over the coming decades (Mathers & Loncar, 2006). In today's LMICs, the epidemiological transition is occurring at lower per capita income levels than it did in high-income countries. As a result, these countries are facing NCD burdens before they have developed the fiscal capacity, primary care infrastructure, and regulatory frameworks necessary to respond effectively (Atun et al., 2017).

### 2.3. Tuberculosis and the Intersection with NCD Risk Factors

Tuberculosis (TB) remains a significant communicable disease burden across much of Sub-Saharan Africa, South Asia, and parts of Southeast Asia. It is simultaneously a condition whose incidence and outcomes are shaped by NCD risk factors: diabetes, undernutrition, and human immunodeficiency virus (HIV) co-infection. Each substantially elevate TB susceptibility and worsen treatment outcomes (Lönnroth et al., 2009). TB therefore occupies a critical intersection between communicable and non-communicable disease programming. The epidemiological and fiscal logic of integrating TB prevention with NCD prevention is compelling but remains institutionally under-exploited, as discussed later in the paper.

### 2.4. Behavioural Risk Factors

Harmful alcohol consumption, smoking of tobacco, physical inactivity, and diets high in salt, sugar, and saturated fats constitute the primary modifiable behavioural risk factors driving the NCD epidemic. These factors are not distributed randomly across populations but are shaped by commercial determinants, like the pricing, marketing, and availability of health-damaging products, as well as by built environment conditions that limit access to active transport, recreational space, and nutritious foods (WHO, 2017). Effective prevention policy therefore requires regulatory and fiscal instruments that address these structural determinants, not merely public health communication campaigns whose evidence base for population-level behaviour change is comparatively weak.

### 3. The Economic and Fiscal Case for Prevention

The economic rationale for preventive health investment operates through four distinct fiscal channels. The overarching argument, that health outcomes follow financing structures, is treated throughout as a hypothesis supported by evidence, not a self-evident axiom.

#### 3.1. Cost Avoidance: Reducing Downstream Treatment Expenditure

The most direct fiscal argument for prevention is that investing upstream reduces the volume and cost of downstream curative care. The evidence for this relationship is credible in principle but heterogeneous in magnitude across intervention types and country settings.

The World Health Organization (WHO) NCD “best buys”, including behavioural tax increases, harmful alcohol use policies, salt reduction in processed food, and treatment of hypertension and diabetes, are estimated to cost between US\$1 and US\$100 per Disability-Adjusted Life Year (DALY) averted in most LMIC settings, compared with curative intervention costs typically exceeding US\$1,000 per DALY averted for equivalent conditions (WHO, 2011; Daroudi et al., 2021).

Abegunde et al. (2007) estimated that the total economic burden of cardiovascular disease, stroke, and diabetes in 23 selected LMICs, accounting for a dominant share of global NCD burden, amounted to US\$84 billion in foregone national income between 2006 and 2015, a figure that substantially underestimates total economic cost by excluding healthcare expenditure and informal caregiving costs. The implication for fiscal analysis is that even modest reductions in NCD incidence through preventive investment would generate cost savings exceeding programme costs over a 10–15 year horizon.

#### 3.2. Budget Stabilisation: Smoothing Disease-Related Fiscal Shocks

Disease burden generates fiscal shocks through two principal mechanisms: acute events (epidemics, pandemic outbreaks, climate-driven disease surges) that create sudden demand spikes for health services, and chronic trends (the accumulating burden of untreated NCDs) that progressively shift health expenditure upwards relative to GDP. Prevention investment reduces the probability and magnitude of both types of shock.

The COVID-19 pandemic provided stark empirical evidence of the fiscal consequences of inadequate public health infrastructure: LMICs with weaker primary care and public health systems experienced larger economic contractions and greater healthcare cost overruns, with average public health expenditure increases of 2–3 percentage points of GDP in severely affected countries (IMF, 2021). While pandemic preparedness is not identical to NCD prevention, both depend on common infrastructure: surveillance systems, community health workforce, primary care delivery platforms, and laboratory capacity. Investment in this shared infrastructure generates fiscal resilience benefits across multiple disease threats simultaneously.

Budget stabilisation effects are particularly relevant for countries with narrow fiscal space, where a single disease shock can trigger debt sustainability concerns or crowd out education and infrastructure investment. Countries that maintain prevention spending as a protected budget category, rather than a residual adjusted downward in fiscal consolidation episodes, maintain more stable health system capacity and reduce the expected cost of crisis response. The International Monetary Fund (IMF) has explicitly recognised that pre-emptive health system investment reduces the fiscal volatility associated with health emergencies (IMF, 2021).

### 3.3. Productivity Protection: Labour Supply and Output Effects

The macroeconomic channel connecting health to economic output operates primarily through labour supply effects: disease-attributable morbidity and premature mortality reduce labour force participation, depress productivity within the labour force, and impose informal caregiving costs that withdraw additional labour from the formal economy. For LMICs where labour is frequently the primary factor of production in agriculture and services, these effects are particularly consequential.

Bloom et al. (2011) estimated that NCDs would cost the global economy US\$47 trillion between 2011 and 2030 in foregone output, driven by labour force losses, productivity reductions, and investment diversion. While this estimate is a modelled projection subject to uncertainty, particularly with respect to assumptions about disease trajectory, economic growth rates, and counterfactual treatment coverage, its order of magnitude is broadly consistent with estimates from other methodologies. The Lancet Countdown (Watts et al., 2019) documented that climate-attributable heat exposure resulted in the loss of 302 billion potential work hours in 2019, equivalent to approximately 1.8% of potential global labour productivity, with Sub-Saharan Africa and South Asia bearing the largest shares.

For national economic planning purposes, preventive investment that reduces premature adult mortality can significantly alter workforce projections over a 15–25-year horizon. A country with high cardiovascular disease prevalence among adults aged 40–60 loses a substantial share of its most productive and experienced workers to preventable premature death, an outcome with direct consequences for total factor productivity, tax base depth, and pension system actuarial balances. This productivity-fiscal nexus is rarely made explicit in national development plans or fiscal frameworks, representing a significant analytical gap.

### 3.4. Reduction of Out-of-Pocket Household Expenditure

Out-of-pocket health expenditure is a primary mechanism through which disease translates into poverty. Xu et al. (2003), using household survey data from 59 countries, established that approximately 150 million people annually face catastrophic financial hardship due to health payments, with a substantial concentration in countries without adequate financial protection mechanisms. Wagstaff et al. (2018), in a retrospective analysis of 133 countries over multiple decades, found that while the incidence of catastrophic health spending declined in countries that expanded public coverage, progress was substantially slower in Sub-Saharan Africa and South Asia, precisely the regions where prevention investment is most limited.

Prevention reduces catastrophic expenditure through a direct mechanism: by reducing incidence and severity of disease episodes, it reduces the probability that households will face large, unplanned health expenditures. In countries where health insurance coverage is incomplete and drug procurement falls substantially on households; this pre-distributive effect of prevention is particularly valuable.

## 4. Policy Design Options

The fiscal channels identified in Section 2 are activated through specific policy instruments. This section analyses four such instruments, integrated programme design linking TB and NCD prevention, medium-term expenditure framework commitments, programme-based budgeting, and health taxes, which span both programmatic design and fiscal governance and are broadly complementary in their effects.

### 4.1. Integration of TB and NCD Prevention

The epidemiological overlap between TB and NCD risk factors, diabetes, tobacco smoking, undernutrition, and indoor air pollution each elevating TB susceptibility and worsening treatment outcomes, creates a substantive case for integrated programme design. Lönnroth et al. (2009) demonstrated that diabetes triples the risk of active TB disease and worsens treatment outcomes, while tobacco smoking doubles TB risk and significantly impairs treatment response. The implication is that NCD prevention programmes that successfully reduce diabetes prevalence and tobacco smoking will generate co-benefits in TB incidence reduction, an efficiency argument for integration that has fiscal value.

The best-case integration scenario involves a unified community health platform that screens for both TB symptoms and NCD risk factors (hypertension, blood glucose, body mass index, smoking status) at a single community health contact, with co-located referral pathways to primary care for both TB treatment and NCD management. Supply chain systems are unified. Information systems capture both conditions. Quality improvement cycles address both programmes simultaneously. This design maximises economies of scope at the community level and eliminates the duplication inherent in parallel vertical programmes.

Such integration has been piloted in several LMIC settings. A TB/HIV integration model, now widely adopted, provides a relevant precedent demonstrating that integration can be operationally achieved where there is strong political commitment and adequate supervision capacity (Atun et al., 2010). However, TB/NCD integration faces additional complexity relative to TB/HIV integration: NCD risk factor management is a chronic, ongoing process rather than a discrete treatment episode; NCD drugs (antihypertensives, metformin) require separate supply chains from TB drugs; and NCD management requires a more diverse cadre skillset than TB treatment.

### 4.2. Embedding Prevention in Medium-Term Expenditure Frameworks

The medium-term expenditure framework (MTEF) is the primary instrument through which governments commit to multi-year resource allocations across policy areas. Prevention financing is structurally disadvantaged in annual budget cycles, where benefits are long-horizon and costs immediate, but can be more effectively protected through MTEF commitments that bind future budget decisions to current prevention spending floors.

Embedding prevention in MTEFs requires four operational steps:

**First**, a sub-functional classification of health expenditure that separately identifies preventive from curative spending must be established, using Government Finance Statistics Manual (GFSM 2014) functional classifications or their national equivalents (IMF, 2014). Without this classification, prevention spending cannot be tracked or protected.

**Second**, a multi-year prevention spending floor, expressed as a percentage of the total government health allocation, should be established through cabinet decision or legislation, providing protection against annual re-prioritisation.

**Third**, the MTEF should specify output and outcome targets for prevention (coverage indicators, risk factor prevalence reduction targets) that are reviewed annually in the budget preparation cycle.

**Fourth**, Treasury or Finance Ministry budget guidelines should require Health Ministries to explicitly justify any proposed reduction in prevention allocations relative to the MTEF baseline.

There is limited but growing evidence that health spending commitments embedded in MTEFs are more durable than annual appropriations. Stenberg et al. (2017) found that countries that maintained consistent domestic health spending trajectories, which MTEF commitments support, achieved better health outcome trends than those with volatile spending patterns. However, the evidence specifically attributing prevention spending durability to MTEF design is largely observational and subject to confounding: countries with stronger fiscal institutions tend both to maintain consistent MTEFs and to sustain prevention programmes, making causal attribution difficult. This limitation should be acknowledged in policy advocacy for MTEF-based prevention protection.

### 4.3. Behavioural Taxes on Harmful Substances

Behavioural taxes, excise duties or levies on harmful products are empirically supported fiscal instruments for simultaneously reducing harmful consumption while generating government revenue. The theoretical basis is straightforward: harmful products generate negative externalities (healthcare costs, productivity losses, environmental harms) that are not internalised in market prices; taxation corrects this market failure by increasing prices in line with their social cost. As the IMF has argued, the workable approach for policymakers is to tax products on the amount of the harmful substance they contain, since consumption behaviour itself cannot be directly observed or taxed (Rosenberg & van Oordt, 2026).

Two substances of concern for NCD prevention in the Global South are added sugar, in the context of sugar-sweetened beverages, and ethanol, in the context of alcoholic beverages. Excess sugar consumption is a primary driver of obesity and type 2 diabetes, while harmful alcohol consumption elevates risk across cardiovascular disease, liver disease, several cancers, and mental health conditions (WHO, 2011). Both generate negative externalities; however, the magnitude of the externality is not uniform across products in each category: a beverage containing 12 grams of sugar per 100ml generates a greater marginal health risk than one containing 3 grams, and a spirit at 40% alcohol-by-volume (ABV) generates a greater risk per serving than a low-strength beer. A tax that fails to reflect this risk gradient within product categories corrects the externality imprecisely and foregoes the reformulation incentive that is the most potent public health effect of well-designed behavioural taxes.

For sugar-sweetened beverage (SSB) taxes, Mexico's 2014 SSB tax, a peso-per-litre excise, was associated with an average monthly reduction of 6% in the volume of taxed beverages purchased in 2014, compared with what would have been expected without the tax. The larger reductions were among lower-income households (Colchero et al., 2016). However, evidence on downstream health outcomes (rather than consumption changes) remains limited, and long-run behavioural responses, including reformulation, substitution, and familiarization to the price increase, require further evaluation.

The United Kingdom's Soft Drinks Industry Levy (SDIL), introduced in April 2018, provides a well-evaluated example of a graduated tax based on sugar. The SDIL introduced two tiers: £0.18 per litre for drinks containing at least 5g but less than 8g of sugar per 100ml, and £0.24 per litre for drinks containing 8g or more per 100ml, with no levy applied to drinks below 5g per 100ml (Jones et al., 2025). This structure reflects a "less sugar, less tax" incentive, in which producers could avoid the levy entirely by reformulating below the lower threshold.

Across 38 studies, the SDIL was consistently associated with reformulation of soft drinks to reduce sugar content, encouraging innovative practices across the industry as manufacturers developed lower-sugar formulations to reduce or eliminate their levy liability. The same review also found consistent associations with reduced purchasing of sugar from eligible drinks and improvements in health-related outcomes (Jones et al., 2025). In addition, modelling evidence suggests that reductions in sugar consumption following the SDIL are associated with improvements in child health outcomes, including reductions in obesity and dental caries, with greater benefits observed among more deprived populations (Cobiac et al., 2024).

Therefore, effective health tax design should satisfy three principles:

- **Specific excise tax components**, tax structures should emphasize specific-heavy excise structures, minimizing the use of ad valorem components. This hinders consumers from downtrading to cheaper alternatives within the same harm group product (World Bank, 2023).
- **Substance specificity**, rates should be calibrated to the concentration of the harmful substance (sugar per 100ml, ethanol per unit). This ensures that the reformulation incentive and the consumer substitution effect are precisely targeted to the risk-generating component of the product (Rosenberg & van Oordt, 2026).
- **Indexation**, tax rates should be automatically indexed to inflation to prevent real value erosion over time (World Bank, 2023).

## 5. Core Implementation Layers: A Sequenced Investment Logic

The policy instruments examined in Section 3, health taxes, MTEF commitments, and integrated programme design, generate their anticipated fiscal and health returns only through functional prevention delivery systems. Effective prevention systems are not delivered through a single intervention or programme but through layered, interdependent investments in knowledge generation, service delivery infrastructure, and information systems.

### 5.1. Knowledge and Screening: The Foundation Layer

Prevention is impossible without knowledge of disease risk, at population, community, and individual levels. Epidemiological surveillance provides the population-level data required to prioritise intervention targets; risk factor screening identifies individuals at elevated probability of disease progression; and longitudinal cohort data enable evaluation of intervention effectiveness over time.

Civil registration and vital statistics (CRVS) systems are the foundational data infrastructure for preventive health, enabling cause-of-death attribution, birth cohort tracking, and population denominators for coverage calculations. Mikkelsen et al. (2015), in a systematic assessment of CRVS quality across LMICs, found that fewer than one-third of deaths in Africa, South and South-East Asia were registered and medically certified, fundamentally constraining the evidence base for prevention planning. Strengthening CRVS is therefore not merely an administrative improvement; it is a prerequisite for evidence-based prevention financing.

Targeted screening programmes for hypertension, diabetes, cervical cancer, and TB, focused on high-risk subpopulations, represent the primary interface between population knowledge and individual clinical prevention. The cost-effectiveness of screening depends critically on programme design: targeted approaches that reach individuals with elevated risk profiles consistently outperform universal screening in terms of cost per case detected, though universal approaches may be preferable where risk stratification data are unavailable (Lim et al., 2012). In low-capacity settings, integrating screening into existing maternal and child health contacts, TB case-finding, or occupational health visits can substantially reduce incremental delivery costs.

## 5.2. Infrastructure and Workforce: The Delivery Layer

The largest and most resource-intensive implementation layer involves the physical infrastructure and human capital through which preventive interventions reach populations. Primary health care facilities, community health workers, and ancillary diagnostic capacity constitute the core delivery platform.

The World Health Report 2008 (WHO, 2008) documented that health systems oriented around strong primary care achieve better population health outcomes at lower cost than systems dominated by hospital-based specialist care, a finding with direct implications for budget allocation. Countries with robust primary health care networks, able to deliver hypertension management, diabetes monitoring, and immunisation, demonstrate measurably superior prevention coverage indicators relative to those relying on hospital outpatient departments for primary-level services.

Community health workers (CHWs) are a particularly important cadre for prevention delivery in resource-constrained settings. Gilmore and McAuliffe (2013), in a systematic review of CHW programmes in LMICs, found consistent evidence of effectiveness in improving coverage of preventive interventions, particularly for maternal and child health, tuberculosis, and malaria, with positive effects on health outcomes where CHW programmes were adequately supported. However, the same review identified supervision quality, supply chain reliability, and compensation as critical determinants of programme performance, caution against assuming that CHW deployment automatically delivers the expected health returns. Fiscal sustainability of CHW programmes is also a recurrent concern: many high-performing CHW systems in the Global South were initially donor-funded and faced substantial quality degradation when external financing was reduced without commensurate domestic budget substitution.

## 5.3. Digital and AI Systems: The Intelligence Layer

Digital technologies and, more recently, AI offer significant potential to improve the efficiency and targeting of prevention systems in LMICs. Relevant applications include mobile health platforms for risk factor screening, appointment reminders, and medication adherence support; geographic information systems for targeting prevention outreach to high-risk communities; electronic health records enabling longitudinal risk monitoring; and AI-assisted analysis of imaging and laboratory data to improve diagnostic accuracy in low-resource settings.

The WHO recommendations on digital health interventions (WHO, 2019) provide an evidence-graded framework, finding strong evidence of effectiveness for mobile client communication (appointment reminders, health promotion messaging) and moderate evidence for electronic decision support for health workers. Evidence on AI-assisted clinical decision tools in LMIC settings remains emerging, most efficacy data are derived from high-income country contexts with distinct data environments, and scale-up should proceed with contextual validation. Mehl and Labrique (2014) proposed an mHealth maturity model that provides a useful framework for assessing the appropriateness of digital investments relative to a country's existing data infrastructure and connectivity environment.

Digital investments carry meaningful implementation risks in low-capacity settings: interoperability failures between vertical programme information systems, data governance gaps, recurrent costs that are often underestimated in capital-focused project budgets, and dependence on reliable electricity and connectivity infrastructure. Policymakers should require interoperability standards, total cost of ownership analysis, and sustainability financing plans before committing to large-scale digital health platforms.

## 6. Summary

Preventive health in the Global South is not merely a clinical or public health concern but a fiscal governance challenge with direct implications for budget stability, economic productivity, and household financial protection. This paper examines the structural case for upstream health investment across four fiscal channels: cost avoidance, budget stabilisation, labour productivity protection, and reduction of catastrophic out-of-pocket expenditure, and analyses the policy instruments through which these returns can be realised: integrated TB and NCD programme design, medium-term expenditure framework commitments, and health taxes. It then identifies the layered implementation infrastructure, spanning epidemiological surveillance, primary care and community health worker delivery platforms; and digital systems, without which these instruments cannot generate their projected returns.

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