African Health Policy Alliance

PREVENTION AS AN INVESTMENT

The Case for Preventive Care in Africa

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1. The Overlooked Case for Investment in Prevention

South Africa's consolidated health expenditure is projected at R310 billion in 2026/27 [1]. The estimated economic burden of non-communicable diseases averages 4.4% of GDP across the 22 countries for which such estimates are available [2]. Applied to South Africa's GDP of R7.6 trillion [3], this implies an annual burden exceeding R300 billion before accounting for HIV, tuberculosis and injuries. To date, South Africa has not produced a comprehensive estimate of the economy-wide return on investment which could arise from prevention.

The existing evidence is disease-specific: the HIV Investment Case identified two prevention interventions that are cost-saving [4], while the mental health investment case reports returns broken down by condition [5]. Both analyses are limited to single disease areas. By contrast, none of the six consumption-linked risk factors that account for a large share of the national disease burden have been costed in the same way, and no investment case has consolidated the preventive health agenda into a single fiscal and economic estimate. This gap in analysis persists despite domestic evidence that preventive instruments can be effective: the Health Promotion Levy reduced sugar purchased in taxed beverages by roughly one-third within a year [6] and mandatory sodium limits reduced salt intake by more than one gram per day [7].

Prevention offers fiscal and economic returns for South Africa. Currently, however, there is no national estimate framed in terms relevant to the Treasury, nor an institutional mechanism that brings returns accruing to other budgets into allocation decisions.

CORE POLICY MESSAGES
1. Prevention could generate material fiscal and economic savings for South Africa. The cost of non-communicable disease averages around 4.4% of GDP. Applied to South Africa, this implies a burden exceeding R300 billion annually. Despite this scale, the scope for reducing avoidable costs remains insufficiently explored. While South Africa's experience with HIV prevention, sugar taxation, salt regulation and tobacco control indicates that preventive instruments can deliver measurable returns, a Treasury-facing national estimate that treats prevention as an investment and expresses its value in fiscal and economic terms has not yet been produced.
2. The preventable disease burden is concentrated in areas where health policy instruments already exist. Six consumption-linked risks account for more than 250,000 deaths annually, while tuberculosis, HIV, AIDS and sexually transmitted infections dominate the communicable-disease burden. Both sets of risks can be addressed through existing policy instruments in place in South Africa.
3. The principal constraint is institutional rather than evidential. Preventive interventions suffer from a classic structural misallocation: the funding ministry internalizes the full short-term budget impact, while returns diffuse across external departmental portfolios and materialize past the standard three-year Medium-Term Expenditure Framework (MTEF). Institutional mechanisms must either ring-fence preventive spending or internalize these cross-budget, long-term spillovers into strategic resource allocation.
4. South Africa has already developed Treasury-grade investment cases for HIV and mental health. A comparable exercise should be applied to the broader prevention agenda. Three of the four required inputs are already available. The fourth, a target ed costing exercise, could be completed within months and be incorporated into budget decision-making processes.
5. Four measures appear most immediately relevant for South Africa. HIV prevention, salt regulation, the sugar levy and detection of hypertension and diabetes both address large disease and risk targets and generate returns on investment through economic channels that do not depend primarily on new employment. By contrast, mental health and musculoskeletal conditions, which dominate some high-income-country estimates, rely more heavily on labour-market channels that are less certain in South Africa.

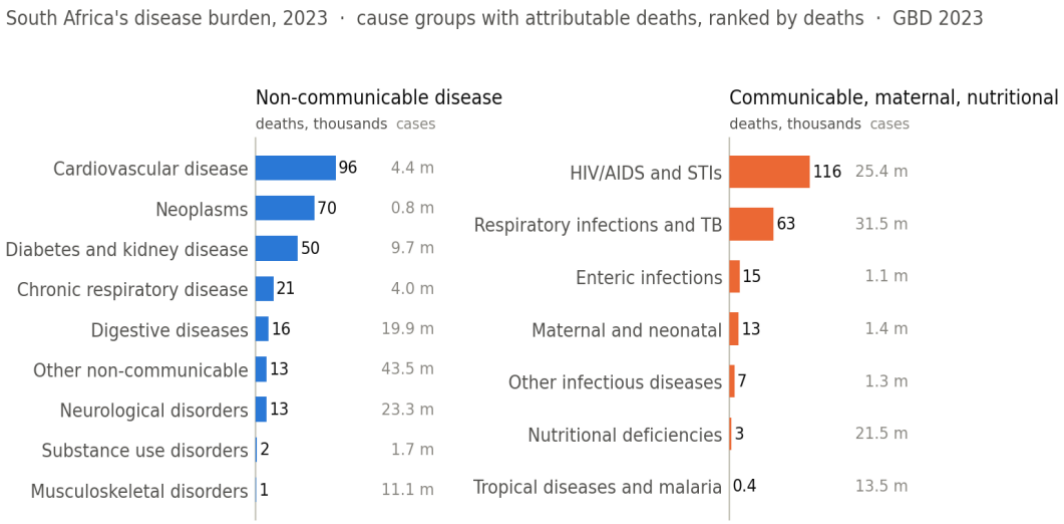
CORE POLICY MESSAGES
6. Labour-market conditions impact the realised return. With 8.5 million people unemployed, the South African return on investment is likely to arise mainly through productivity gains among those already employed, averted premature mortality and fiscal impacts. Any national estimate should therefore be structured around these channels rather than imported directly from high-employment settings.
7. Initial action should focus on areas where returns on investment are already documented. HIV prevention, salt regulation, the Health Promotion Levy and NCD detection do not require new instruments or a new tax policy decision. Improving these instruments is a practical starting point in the short-term, while a broader national investment case is developed.
8. The financing mechanism should precede new measures. Before considering new rates or instruments, policymakers should determine how prevention-related returns will be recognised in allocation decisions and how any dedicated funding will be protected as additional. International experience suggests that health taxes are more durable when the beneficiary and purpose are defined from the outset.

The paper proceeds as follows. Section 2 identifies where the health burden is concentrated. Section 3 explains why prevention remains under-funded despite supportive evidence. Section 4 reviews the estimated returns on investment in prevention from the literature and assesses their applicability to South Africa. Section 5 identifies four feasible measures for near-term implementation. Section 6 reviews international mechanisms for financing preventive care. Section 7 sets out the national investment case and presents five recommendations.

2. The Epidemiological and Fiscal Burden

South Africa faces four concurrent disease burdens: HIV and tuberculosis, other communicable conditions, non-communicable disease and injuries. The country recorded about 477,000 deaths in 2023, of which 60% were attributed to non-communicable disease, 27% to communicable disease and 13% to injuries [8]. Deaths from major non-communicable diseases increased by nearly 60% between 1997 and 2018 [9]. In the Global Burden of Disease estimates, which adjust for under-registration, HIV remains the largest single cause of death, with about 116 000 deaths, while respiratory infection and tuberculosis account for a further 63,000 [10], as summarised in Figure 1. Cardiovascular disease, cancer and diabetes with kidney disease account for more than 200,000 deaths per year, while HIV, respiratory infection and tuberculosis together exceed the entire cardiovascular group. Focusing on only one component of this burden would therefore leave a substantial share of avoidable disease unaddressed. Mental health is also relevant, as the national investment case estimates the cost of unaddressed mental, neurological and substance-use conditions at about 4% of GDP annually [5].

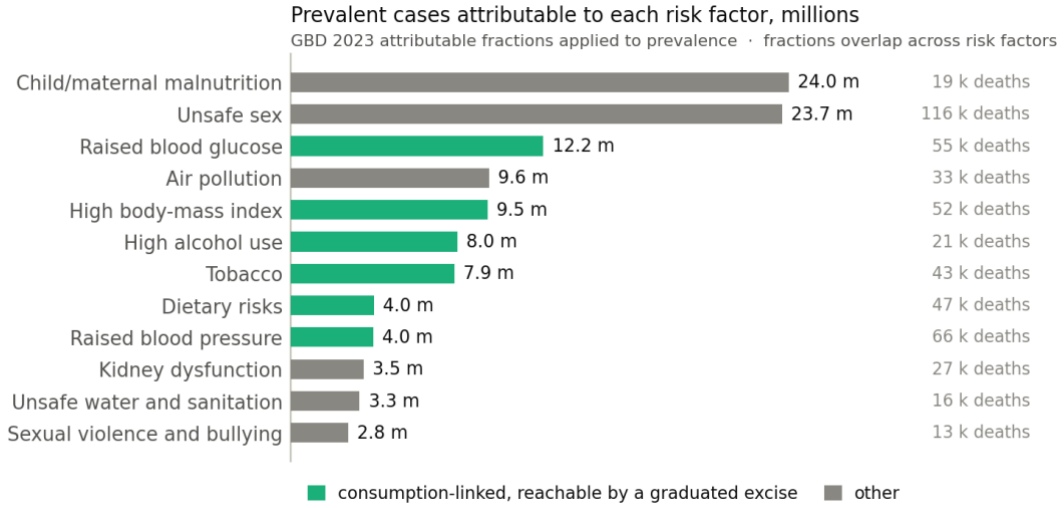
Figure 1. South Africa's disease burden by cause group, 2023, ranked by deaths, prevalent cases shown for scale.



Source: Global Burden of Disease 2023.

Figure 2 presents the a breakdown of disease prevalence by attributable risk factor. Unsafe sex is the largest single risk factor and the national Comparative Risk Assessment attributes to it one in four disability-adjusted life years lost [11]. Six consumption-linked risks (raised blood pressure, raised blood glucose, high body mass, poor diet, tobacco and alcohol) together account for more than 250,000 deaths annually [10]. As each risk is connected to a product or behaviour that can be affected by price, regulation or service delivery, these risks are amenable to instruments such as levies, reformulation rules and screening programmes.

Figure 2. Prevalent cases attributable to each risk factor, South Africa 2023, with attributable deaths. Consumption-linked risks highlighted.



Source: Global Burden of Disease 2023.

The health system's main weakness lies at the point of detection. Among South Africans aged 15 and over, 35% have hypertension, half have never been screened, a quarter were screened but not diagnosed, and fewer than one in ten have the condition controlled [12]. For diabetes, four in five cases remain undiagnosed [13]. Although once diagnosis occurs, most patients do

receive treatment, the greatest challenge lies in timely diagnosis. Late detection also imposes costs; treating all cases of type 2 diabetes, diagnosed and undiagnosed, would have cost the public sector about R22 billion in 2018, compared with the less than R3 billion spent. Diabetes-related complications account for half of the R35 billion projected for 2030 [14]. Hypertension costs the public system R10 billion directly and society R29 billion indirectly [15]. For the country's fastest-growing chronic diseases, late detection contributes substantially to these costs.

Two constraints limit policy options to combat these burdens and associated costs, the first being fiscal. Gross government debt is projected to peak at 78.9% of GDP in 2025/26, against a consolidated deficit of 4.5%, while the health function reaches R334 billion only by 2028/29, This implies nominal growth of about 4% per year, but with the wage bill absorbing much of the increase [1]. Any new commitments to prevention must therefore be accompanied by raised revenue, use existing delivery mechanisms or be prioritised over existing spending in other areas. The second constraint is the labour market, where a substantial part of prevention's economic return is either realised or lost. Table 1 sets out the relevant labour market conditions [16].

Table 1. South Africa's labour market, second quarter 2026.

Indicator	Q2 2026
Official unemployment rate	33.7%
Unemployed persons	8.5 million
Employed persons	16.7 million
Of whom in the formal sector	12.1 million
Labour force participation rate	59.6%
Long-term share of the unemployed	78%
Working-age population (15 to 64)	42.3 million

Source: Statistics South Africa, Quarterly Labour Force Survey P0211.

Employment declined marginally over the most recent quarter while the labour force expanded, indicating that the economy is not absorbing additional labour supply. Long-term unemployment above three-quarters of total unemployment further suggests that re-entry is difficult even for jobseekers in good health. These conditions define the labour market through which any economic return from prevention must be realised.

3. Institutional Barriers to Preventive Investment

The case for prevention is widely accepted in principle but remains weakly reflected in budget allocations. As this reason is structural rather than evidential, it shapes which reforms are likely to be realistic in practice. Health systems typically classify prevention as expenditure whereas, economic analysis treats it as investment in future health and productivity. This distinction matters in a budget process that separates current consumption from longer-term human capital formation. It helps explain why prevention accounts for less than 3% of health spending across the OECD [17] and, on any reasonable interpretation, less in South Africa. South Africa appropriates funds annually within a three-year Medium-Term Expenditure Framework. A prevention programme with a ten-year payback therefore shows most of its costs inside the planning window and most of its returns outside it. Budget decisions capture the fiscal cost at the point of decision but not the longer-term gains in health and human capital. An investment case brings those gains into the decision alongside the fiscal cost, rather than in place of it.

A second constraint is the "wrong pockets" problem. Prevention is often under-funded because the institution that bears the cost does not derive a commensurate share of the benefits; from the implementing department's perspective, the costs may exceed the direct returns even

when society gains overall [18]. In South Africa, a provincial health department funding hypertension screening bears the full programme cost. The benefits fall elsewhere: in tax receipts on output not lost to illness, in lower disability-grant outlays on the Social Development vote, and in treatment capacity freed in later years. Much of the health-system benefit is freed capacity rather than released cash, and lower mortality also raises later outlays on old-age grants. These are not revenues that could be returned to the department. They are returns that the department's own budget submission does not capture. The Health Promotion Levy shows the same separation on the revenue side. It raises R2.4 billion annually [1], all of it paid into the National Revenue Fund, as the Constitution requires for national revenue unless an Act of Parliament excludes it. This is a deliberate design choice, but it leaves no link between the levy and prevention spending. Prevention therefore must be underpinned by a strong investment case, rather than a singular focus on clinical outcomes, in order to incorporate favourable cost-effectiveness evidence into stronger allocations.

South Africa's position strengthens the investment case in two respects. First, part of the preventable burden occurs at younger ages than in many high-income settings, increasing the potential share of benefits realised during working age. Second, limited fiscal space requires that prevention is expressed in terms that are relevant to the Treasury – avoided future expenditure, preserved productivity and identifiable fiscal returns on investment.

The following Sections therefore examine the expected returns to prevention, identify priorities for near-term funding, assess how returns that accrue to other budgets could be recognised in allocation decisions, and set out the requirements for producing a national prevention investment case.

4. Estimating the Economic Returns of Prevention

South Africa does not currently have a macroeconomic model of preventive health. Any national estimate must therefore draw on international methods while assessing which assumptions remain valid in the South African context. This Section proceeds in three steps. First, it reviews the published estimates of returns to prevention and the modelling assumptions on which they rest. Second, it examines the channels through which prevention generates economic value and considers how those channels operate under South African fiscal, epidemiological and labour-market conditions. Third, it assesses individual measures against the South African evidence base in order to identify which interventions are most likely to yield credible returns.

4.1 Evidence from Published Investment Models

A systematic review of 52 studies of public health interventions in high-income countries finds a median return of 14 to one, rising to 46 to one for legislative measures such as taxes and regulation [21]. The WHO's 2018 investment case for low and lower middle-income countries found that every dollar invested in the NCD best buys returns at least seven, at an additional cost of US$1.27 per person per year [22]. Its 2025 update, spanning 176 member states, puts the return at 7 to one by 2035 for about US$3 per person per year [23]. A decade of national investment cases finds salt reduction returning 31 to one and tobacco control 77 to one [2]. The Global Plan to End TB returns 46 to one [24]. Where such measures have run for decades the record is consistent: in Finland's North Karelia, coronary mortality among working-age men fell 82% between the early 1970s and 2012, with smoking, cholesterol and blood pressure explaining nearly all of the first decade's decline [25]; Mexico's soda tax cut purchases of taxed drinks by 6% on average in its first year and 12% by the end of it [26]; Chile's labelling law cut purchases of high-sugar drinks by 24% [27]; and Hungary's public health product tax prompted 40% of affected manufacturers to reformulate [28].

Table 2 compares the macroeconomic models, illustrating their associate changes, time horizons and outcomes:

Table 2: Scenarios and headline results of the principal models

Model	Scenario	Horizon	Headline result
United Kingdom, Schindler and Scott 2025	20% fewer new cases of six chronic diseases (cardiovascular, cancer, diabetes, COPD, musculoskeletal, mental health); effect measured through observed labour market exits after diagnosis	5 and 10 years	GDP +0.99% after 5 years, +1.51% after 10; with most of the gain arising from labour force participation, and the largest contributions coming from mental health and musculoskeletal
OECD 2026	Six risk factors (tobacco, obesity, inactivity, alcohol, diet, air pollution) raised to the level of the best OECD and EU quartile	Average 2026 to 2050	GDP +1.3% a year, premature mortality −11.4%, health expenditure −6.2%
WHO 2025 investment case	28 of the 29 best buys scaled up in 176 member states at about US$3 per person per year	To 2030 and 2035	12 million lives saved, US$1 trillion economic benefit by 2030; return 4 to one by 2030, 7 to one by 2035
UNDP 2026 synthesis	23 national NCD investment cases using the WHO/UNDP method; country-specific packages	15 years	Salt 31 to one, tobacco 9 to one (77 to one in tobacco-only cases), physical activity 5.6, alcohol 4.8, clinical CVD and diabetes 1.25 to 6 to one

Sources: Schindler and Scott 2025 [29]; OECD 2026 [30]; WHO 2025 [23]; UNDP 2026 [2].

Applied to South Africa's GDP of R7.6 trillion [3] without any adjustment, the UK scenario would be worth R75 billion a year after five years and R115 billion after ten, and the OECD scenario R99 billion a year. These are arithmetic transfers, not estimates, and they are upper bounds: the UK gain arises mostly from people staying in work after an illness is avoided [29,31], and in an economy with 8.5 million unemployed a part of that gain does not materialise. The OECD scenario assumes a move to the best OECD quartile, a larger step for South Africa than for any OECD member. The WHO figures are returns per dollar on a defined package rather than shares of GDP, which is also the form a South African investment case would take. The lower bound of the corridor can only come from such a case, as demonstrated in the following section.

4.2 Transmission Channels and South African Adjustment Factors

Health can be understood as a form of capital that depreciates with age and illness and can be preserved through investment [32]. Preventive spending therefore increases or maintains the health stock, whereas curative spending largely restores it after deterioration has occurred. For budgeting purposes, however, this distinction is only useful if it is translated into observable economic outcomes. A finance ministry needs to assess not simply whether healthier populations are more productive, but the economic and health channels through which gains arise, the likely magnitude of such gains, and the institution in which they will be recognised.

There are four economic and health channels that can link health improvements to economic outcomes, with each operating differently in the South African context:

THE FOUR ECONOMIC AND HEALTH CHANNELS & THEIR APPLICABILITY IN SOUTH AFRICA
Productivity of the employed. Fewer days lost and decreased capacity reduction among people already in work. The channel does not depend on job creation and is an important metric in the South African context.
Labour force participation. In tight labour markets, restored health is more likely to translate into employment. In South Africa, however, additional labour supply enters a market with 8.5 million existing jobseekers. A South African investment case should therefore specify an absorption rate for individuals who obtain employment and include a displacement adjustment for cases in which one worker's employment replaces that of another potential applicant.

THE FOUR ECONOMIC AND HEALTH CHANNELS & THEIR APPLICABILITY IN SOUTH AFRICA
Averted premature mortality. A death averted at 35 preserves three decades of production, one at 60 preserves five years. Non-communicable disease mortality in South Africa is concentrated in the 55 to 64 band, where employment is lowest, so the channel needs age cohorts, not average output.
Fiscal impacts. Avoided public health expenditure, additional tax from earnings, and reduced disability and care dependency grants. These result from the net of two offsets: prevention defers end-of-life costs rather than eliminating them, while longer lives draw the older persons' grant.

South African evidence consistently links ill health to weaker labour-market attachment. Studies using National Income Dynamics Study data find that non-communicable diseases reduce labour force participation, with effects varying by condition and sex [33]. Diabetes is associated with substantially lower participation among women [34], while depression and diabetes reduce employment probability by 4 to 6 percentage points [35] and tuberculosis lowers the probability of formal employment by about 5% [36]. The evidence suggests that ill health primarily shifts individuals from employment or labour-force participation into inactivity, rather than into unsuccessful job search. [37]. In South Africa, weak labour absorption is therefore likely to diminish the realised economic return from improved health. Longer planning horizons for schooling [38,39] and household financial protection [40] may generate additional gains, but these economic and health channels cannot yet be estimated nationally. Finally, because many interventions affect multiple conditions, aggregate returns may compound across diseases, meaning that disease-specific estimates risk double-counting the returns.

4.3 Intervention-Level Applicability to South Africa

Each of the four models ranks preventive health interventions either explicitly or by the size of their reported health impacts, as well as ranking each through a particular economic channel. For every intervention that appears in at least one of the models, table 3 lists the scale of the targeted health risk of outcome the intervention addresses in South Africa, its reported impact, the economic or health channel through which the impact arises, and potential limitations in the South African context.

Table 3. Preventive health interventions in the published models: targeted health risk or outcomes, reported impacts, stated economic or health channel and limitations in South Africa.

Preventive Health Intervention	Targeted Health Risk or Outcome in South Africa	Reported Impact	Stated economic or health channel	Limitations in South Africa
HIV prevention: condoms, male circumcision	Unsafe sex: 116,000 deaths, 25 million cases; largest single risk	Cost-saving; condoms save US$1.5bn over 20 years (SA)	Averted treatment costs	None documented
Salt regulation	Raised blood pressure 66,000 deaths; diet-related 47,000 deaths	31:1 (UNDP); diet 14:1 (WHO); ~7,400 CVD deaths and up to R300m a year (SA)	Health-system costs and productivity	None documented; regulation in force since 2016
Sugar levy	High BMI 52,000 deaths, 9.5m cases; raised glucose 55 000 deaths, 12m cases	Diet 14:1 (WHO); obesity to best quartile +0.6% GDP (OECD); taxed sugar −35% (SA)	Economic benefit incl. productivity (WHO); workforce output (OECD)	Substitution to non-taxable drinks 283 to 313 ml a day, not significant

Preventive Health Intervention	Targeted Health Risk or Outcome in South Africa	Reported Impact	Stated economic or health channel	Limitations in South Africa
Detection and treatment of hypertension and diabetes	35% of adults hypertensive, 91% outside effective care	CVD management 8:1 (WHO); hypertension treatment 4.6:1 (UNDP, Zambia); survival to best quartile +0.1% GDP (OECD)	Participation (UK); survival and workforce output (OECD)	Treatment capacity; unit costs from small studies only
Tobacco excise	43,000 deaths, 7.9 million cases	7:1 (WHO); 9:1, 77:1 in tobacco-only cases (UNDP); 60% excise ~859 000 life-years (SA)	Revenue, health costs and productivity	Illicit share of the market 60% (2021)
Alcohol excise	21,000 deaths, 8m cases; tangible cost 1.6% of GDP (2009)	9:1 (WHO); 4.8:1 (UNDP); 27% beer excise ~568 000 life-years (SA)	Workforce output (OECD)	Deaths a third of raised blood pressure; employment channel
Mental health scale-up	9.5m prevalent cases; no attributable deaths in Global Burden of Disease (GBD) extract	Largest UK GDP contribution; depression 3.6 to 4.7:1 (SA); 4.6 to 10:1 (UNDP)	Participation (UK); productivity (SA)	Employment channel; no mortality channel in the extract
Musculoskeletal conditions	11m prevalent cases, ~1,000 deaths	Second-largest UK contribution; no intervention modelled beyond a hypothetical obesity drug	Participation (UK)	About 1 000 attributable deaths; employment channel
Obesity and cholesterol drugs	CVD 96,000 deaths, 4.4m cases	Obesity drug +0.3% GDP, statins +0.08% GDP (UK)	Participation (UK)	Presupposes diagnosis; under 1 in 10 hypertensives controlled
Workplace programmes	12.1m in formal employment of 42.3m of working age	US$1.15 per employee per year (SA)	Absenteeism and productivity	Formal sector only, 12.1 of 42.3 million

Targeted health outcomes or risks from GBD 2023 [10] (attributable deaths and prevalent cases, cases counted per cause), Berry 2017 [12], Matzopoulos 2014 [41], Stats SA 2026 [16]. Reported impacts from Chiu 2017 [4], Bertram 2012 [42], Stacey 2018 [43], Stacey 2021 [6], Besada 2025 [5], Schouw and Mash 2020 [44], WHO 2025 [23], UNDP 2026 [2], OECD 2026 [30], Schindler and Scott 2025 [29], Bell et al. 2024 [31]. Limitations from Stats SA 2026 [16], Vellios and van Walbeek 2024 [45], Stacey 2021 [6], Berry 2017 [12], Masuku 2022 [46], Strauss-Kruger 2023 [7], GBD 2023 [10]. For every intervention which is a function of participation, the limitation is the labour market in Table 1: unemployment 33.6%, 78% of it long-term.

According to table 3, the UK model would rank mental health and musculoskeletal conditions as the most significant interventions available. This is because their incidence is so high that they account for most exits from the labour force, even though each diagnosis of cancer, cardiovascular disease or diabetes removes a worker more concretely, as cardiovascular disease and cancer together account for about a third of their effect [29,31]. The OECD model ranks obesity as the most significant intervention, with smoking weighing disproportionately on mortality and alcohol on workforce output respectively. This model would therefore place better treatment far below prevention in terms of priority, as aligning cancer and cardiovascular survival to the best quartile yields less than a tenth of the GDP effect of aligning risk factors [30]. The WHO and UNDP cases rank diet and salt first, the UNDP cases put clinical management last, while in the WHO case cardiovascular management at 8 to one sits between alcohol and tobacco [23,2]. The South African studies rank condom distribution and circumcision first because they save money upfront [4], while the one fully costed South African preventive health investment case, for mental health, reports returns of 4.0 to one for

adult depression against 0.6 to one for childhood anxiety [5]. Such investment cases produce important evidence to support decisions about where to target resources to maximise returns.

Table 3 also implies three tests for whether an intervention's published ranking is likely to hold in South Africa: (1) the size of the target burden, (2) the extent to which the reported return depends on labour force participation, and (3) the presence of a documented implementation constraint. HIV prevention meets all three tests: it addresses the largest target, generates returns through avoided treatment costs and faces no major evidentiary constraints. Salt regulation also meets all three tests. The sugar levy meets the first two tests, with its main constraint, substitution to untaxed beverages, appears limited in the purchase data. Detection of hypertension and diabetes meets the burden test, but its return depends partly on treatment capacity. This is a design requirement rather than a reason for exclusion, provided that financing extends beyond screening through to diagnosis, treatment and control. These four interventions are therefore the instances in which the published evidence and South African conditions most clearly align.

Beyond these four interventions, the models rank further preventive health measures. Tobacco excise addresses a large targeted health risk and ranks high in every model, but 60% of the market it would tax pays no duty. Its regulatory companions, which apply to every cigarette, are unaffected and are addressed in Section 5. Alcohol excise addresses a targeted health risk a third the size of raised blood pressure and its largest impact in the OECD model is through employment. Mental health has a large prevalence target and a South African investment case, but the UK impact that ranks it first arises from workers staying in employment, and the GBD extract records no attributable deaths through which the mortality channel could operate. Musculoskeletal conditions, the UK model's other leading contributor, have around 1,000 attributable deaths in South Africa with no intervention recorded in any model, while drug-based prevention presupposes the diagnosis and treatment coverage missing from the care cascade. Workplace programmes reach the formal sector only – 12.1 million of the 42.3 million people of working age.

Returns from the four priority preventive health interventions are realised in two distinct forms. A societal return captures gains in productivity and lives saved while a fiscal return reflects reduced pressures on public budgets. Most clinical prevention primarily generates societal returns [47]. HIV prevention reduces treatment costs, salt regulation imposes minimal fiscal cost, and the Health Promotion Levy raises revenue by design. Detection initially generates societal returns and later fiscal returns as complications are avoided. The UK authors caution that cost-of-illness frameworks may overstate economic impacts when they do not account for labour market adjustment [29]. The ranking above applies that caution to South Africa. It should therefore be read as a hypothesis to be tested through a national investment case.

4.4 Modelling the Return on Investment

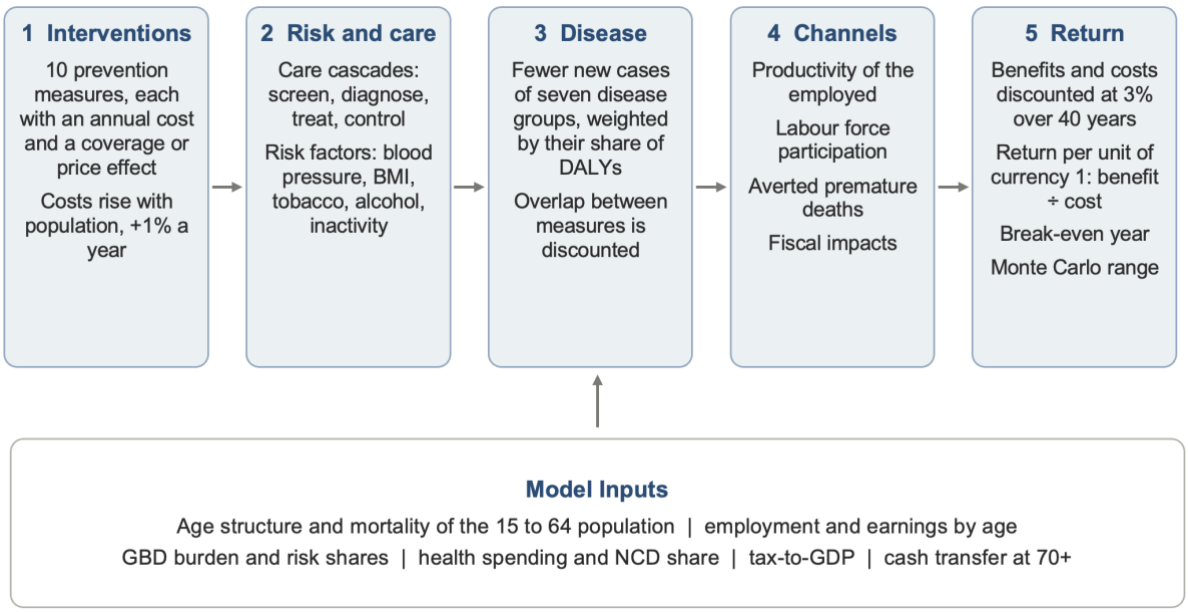
Combining these elements allows for modelling and quantification of the potential returns on investment in preventive health. This comprises five steps:

Table 4. Steps modelling the return on investment.

No.	Step
1	Each of the ten preventive interventions is defined in terms of its annual cost at full implementation
2	A reduction in each risk factor is translated into a reduction in disease burden using the share of deaths attributable to that risk factor, based on data from the IHME Global Burden of Disease database. The model tracks seven disease groups - cardiovascular disease, diabetes, cancer, chronic respiratory disease, mental disorders, musculoskeletal conditions and HIV/TB - and weights them by their respective shares of DALYs to estimate the overall reduction in disease burden.
3	The population aged 15 to 64 is projected over a 40-year period in five-year age groups. The interventions are phased in over three years, after which their impact on disease outcomes build gradually, reaching their full impact over approximately a decade.
4	The resulting reduction in disease cases is translated into economic and health benefits through four channels.
5	Both benefits and costs are discounted at an annual rate of 3%, and total benefits are adjusted downward by 12% to account for potential overlap across benefit channels and avoid double-counting.

The model reports the return on investment, defined as the present value of benefits divided by the present value of costs. A value above 1 indicates that the intervention package generates benefits greater than it costs. Additional outputs include the net present value, the year in which cumulative benefits exceed costs, and uncertainty intervals derived from a Monte Carlo simulation of 1,500 iterations, in which twelve key model inputs are varied. Results are presented using two measures of return. The economic and fiscal return captures only productivity gains and fiscal impact, reflecting the benefits most directly relevant to government decision-makers. The broader return including health additionally assigns value to health improvements themselves, by applying scaling factors of 2.4. for illness-related gains and 3.6 for deaths averted. These factors represent a methodological convention rather than a monetary valuation of life; therefore, the analysis places primary emphasis on the economic and fiscal return.

Figure 3: Model inputs and structure



Finally, the model ranks preventive health interventions according to the return generated by each additional intervention and constructs the intervention package sequentially based on this ranking. The model provides a structured framework for assessing the potential

consequences of policy choices and should be interpreted as an estimate of the likely scale of benefits and costs rather than a forecast of future outcomes.

5. Priority Interventions for Immediate Policy Action

The four priority preventive health interventions have a common advantage from a fiscal policy perspective: each can be implemented through an existing policy instrument. HIV prevention is funded through an established budget sub-programme, sodium limits are already set through regulation, the Health Promotion Levy is in force and the National Strategic Plan for Non-Communicable Diseases 2022 to 2027 sets explicit detection targets [48]. None therefore requires a new tax instrument, primary legislation or rate-setting decision. The following sections review the available South African evidence for each intervention and identify the additional resources needed for implementation.

5.1 Expanding Cost-Saving HIV Prevention

South Africa already has an investment case for HIV prevention which could be applied to the broader prevention health agenda. The HIV Investment Case assessed sixteen interventions over a twenty-year horizon and found two prevention measures to be cost-saving rather than merely cost-effective. At full coverage, condom distribution is estimated to save about US$1.5 billion and avert the loss of 4 million life-years over twenty years [4]. Voluntary medical male circumcision, which reduces a man's risk of acquiring HIV by about 60%, yields an estimated net financial saving of roughly US$600 for a procedure at age twenty and a financial rate of return of about 15% [49]. These are budgetary savings estimated with South African data, with the existing HIV budget of about US$1.6 billion per year being sufficient to finance both interventions at full coverage alongside universal treatment [50]. Coverage nevertheless remains below full scale; closing this gap is therefore the most immediate prevention investment for which returns have already been quantified. Tuberculosis is also a candidate for extension, as the WHO's 2024 investment case for screening and preventive treatment, which includes South Africa among four modelled countries, reports returns of up to US$39 per dollar [51], and screening is most cost-effective in high-prevalence settings [52]. A national tuberculosis investment case comparable to the HIV model has not yet been produced.

5.2 Strengthening Sodium Regulation

Salt reduction ranks highly across the published models and is one of the few preventive measures South Africa has already implemented through regulation. The country introduced sodium limits for processed foods in 2016, after which salt intake among young adults fell by more than one gram per day [7]. Pre-regulation modelling estimated that a reduction of this magnitude could avert roughly 7,400 cardiovascular deaths annually and save up to R300 million in health-care costs [42]. Because the regulation imposes minimal direct fiscal cost, revising and tightening the existing sodium ceilings would be among the lowest-cost preventive actions available to South Africa.

5.3 Restoring the Real Value of the Health Promotion Levy

The Health Promotion Levy, introduced in April 2018, charges 2.1 cents per gram of sugar above four grams per hundred millilitres. The levy's design taxes the harmful ingredient rather than the product, creating incentives for both reduced consumption and product reformulation [53]. Household purchase data from all nine provinces show that sugar purchased through taxable beverages fell from around 16 grams per person per day before the levy was announced to about 11 grams in the first year in which the levy was in force, with the largest reductions among lower-income households. Purchases of non-taxable beverages increased only modestly, from about 280 to 310 millilitres per day [6]. Broader excise simulations suggest that a 20% sugar-sweetened beverage tax would yield about 689,000 life-years [43]. The levy raises approximately R2.4 billion annually [1], but its nominal rate has remained unchanged since 2018, reducing its real value by 11% by 2021, while the increase announced for 2022 was subsequently postponed [54]. Restoring the levy's real value would require no new

instrument or primary legislation. In the current fiscal environment, this distinction is important as health taxes can generate revenue while also supporting prevention.

5.4 Integrating NCD Detection into Existing Delivery Platforms

Raised blood pressure and raised blood glucose are the two largest non-communicable disease targets in Figure 2. As Section 2 shows, the main loss occurs before effective treatment: half of people with hypertension have never been screened, and fewer than one in ten have their condition controlled, although most diagnosed patients receive treatment [12]. Earlier detection is therefore necessary, but insufficient on its own to generate tangible improvements in outcomes. The HIV programme offers a plausible delivery mechanism for expanding screening for these conditions as it already operates adherence clubs, community medicine pick-up points, repeat prescriptions and patient information systems. Adding blood pressure and glucose checks to existing contacts would involve relatively low marginal screening costs; evidence from Johannesburg estimates a median cost of US$1.70 per person screened and about US$36 per potentially new hypertension case identified [55]. Meeting the National Strategic Plan's 90-60-50 targets would substantially increase the number of patients needing treatment and follow-up [48]. NCD detection should therefore be financed as a full care pathway, from screening through diagnosis, treatment and control. Screening generates fiscal and health returns only when connected to funded treatment capacity as it otherwise risks increasing diagnosis without improving outcomes.

5.5 Tobacco and Alcohol within the Prevention Investment Framework

Tobacco ranks high in all relevant models and South Africa has already tested different health policy directions. Between 1994 and 2004, the real price of cigarettes rose by 110%, while adult smoking prevalence fell from 31% in 1993 to 24% in 2003 [56]. Enforcement later weakened and, by 2021, illicit cigarettes accounted for 60% of the market, with an estimated fiscal loss of R120 billion over twenty years [45]. An excise increase would therefore reach less than half of consumption. Measures less dependent on enforcement are the regulatory instruments that the WHO lists alongside taxation as best buys: advertising bans, smoke-free laws, packaging rules and cessation support. These require limited fiscal outlay and apply to cigarettes whether or not duty has been paid [23,2]. The Tobacco Products and Electronic Delivery Systems Control Bill is currently before Parliament's health committee [57].

Alcohol also imposes substantial costs: in 2009, tangible costs were estimated at R38 billion, equivalent to 1.6% of GDP [41]. The excise system already differentiates spirits from beer and wine [1], while the OECD model attributes alcohol policy's main effect to workforce output [30], a channel Section 4 treats cautiously in the South African context. Tobacco and alcohol should therefore be included in a national plan, but arguably as lower-priority risk factors in the context of fiscal losses to the illicit market.

6. Financing Mechanisms and the Identification of Returns

Section 3 identified the central institutional constraint: the entity financing prevention may not capture the resulting fiscal or economic benefits. International experience suggests that this misalignment can be addressed by earmarking revenue, protecting preventive allocations, or making cross-budget returns visible when fiscal decisions are made. More than 80 countries earmark a share of public revenue for health. Such arrangements can improve funding continuity beyond the annual budget cycle, particularly where policy priorities are not consistently reflected in allocations. However, earmarking alone does not guarantee additional health resources. Because public budgets are fungible, earmarked revenue may be offset by cuts elsewhere unless explicitly designated as additional to existing health expenditure [58,59].

Four institutional designs have been applied at national scale with each having an operational precedent, a distinct advantage and a corresponding limitation. The choice among them is therefore a prior fiscal policy decision, rather than being determined solely by technical factors.

Table 5. Four institutional designs for protecting preventive allocations or bringing prevention-related returns into allocation decisions.

Design	Working example	Strength	Weakness
Statutory earmark of incremental revenue	Philippines, Sin Tax Law 2012: 85% of incremental revenue allocated to health, principally for universal coverage	Large, immediate and politically visible; associated with a tripling of the health budget over four years	Links health funding to a tax base that may decline over time; requires primary legislation
Surcharge allocated to an autonomous body	Thailand, ThaiHealth: 2% surcharge on tobacco and alcohol excise	Operates outside the annual budget process; enables cross-ministerial governance; remained in place across five governments	Modest in scale relative to the overall health budget; accountability sits partly outside the normal Treasury process
Protected budget programme or sub-programme without a dedicated tax	Australia, VicHealth after the loss of its tobacco levy in 1997	Avoids creation of a new tax and preserves Treasury discretion over revenue allocation	Durability depends on successive budget decisions; the link between harmful product and health purpose is weakened
Investment-case method without earmarking	South Africa, HIV Investment Case; WHO/UNDP investment-case methodology	Makes cross-budget returns visible at the point where allocation decisions are made; already applied in South Africa	Strengthens the case for prevention but does not itself generate funding; effectiveness depends on Treasury acting on the evidence

The strongest empirical record is associated with the first two designs. The Philippines' 2012 Sin Tax Reform Law increased tobacco and alcohol excise collections by 86% in its first year and, by statute, directed 85% of incremental revenue to health. By 2016, the Department of Health budget was three times its 2012 level, while coverage of poor families under national health insurance had increased from 5 million to 15 million [60]. Thailand employs a different model, implementing a 2% surcharge on tobacco and alcohol excise to generate approximately US$120 million annually for the Thai Health Promotion Foundation, which is governed by a board chaired by the Prime Minister and includes nine ministries [61]. The foundation's durability across five governments and two coups illustrates the value of placing preventive funding outside the recurrent annual bargaining process.

Cases of failure are equally informative. Denmark introduced a tax on saturated fat in 2011, in part as a revenue-raising measure, but repealed it within fifteen months; public-health arguments featured prominently at introduction but had limited influence in the repeal debate [62]. Cook County's soda tax survived only four months [63]. Korea's health-promotion levy raises revenue, but by 2018 more than half of the fund was being used to subsidise national health insurance rather than finance health-promotion activities [64]. These examples suggest that health taxes are politically vulnerable when framed primarily as revenue instruments and when the intended health-sector beneficiary is not clearly specified.

The fourth design is closest to South Africa's existing institutional experience. The WHO/UNDP investment-case methodology is designed to quantify returns that accrue across departments and make them visible to the authority responsible for allocation decisions [65]. South Africa has already used this approach for HIV [50] and mental health [5]. Applying the same method to the broader prevention agenda is therefore the missing analytical step. Irrespective of the selected mechanism, the institutional design should precede any new rate-setting decision. International experience suggests that health taxes are more durable when the beneficiary, purpose and additionality of the revenue are specified from the outset.

7. Developing a National Prevention Investment Case

A South African GDP-level figure produced to the standard of the United Kingdom model is not currently defensible: that model rests on individual-level longitudinal data linking disease incidence to labour-market transitions, and South Africa has neither the incidence register nor a linked labour-market panel of comparable currency. South Africa has an opportunity to produce an investment case in the WHO and UNDP form: cases avoided by each measure, the health-system cost per case, the wider economic cost per case and the cost of delivering the measure, combined into a return per rand over a fixed horizon [65].

Three of these four quantifiable metrics can already be calculated. Cases avoided follow from the Global Burden of Disease attributable fractions applied to national prevalence [10]. The health-system cost per case exists for the two largest consumption-linked conditions [14,15]. Delivery costs exist for the HIV measures through the Investment Case, for the fiscal measures through Treasury's own revenue estimates, and for screening through single-site studies [55,44]. The fourth, the indirect cost of a case in lost output (the wider economics cost per case), has never been produced in South Africa for any condition. This is the metric the four channels in Section 4 are built to consolidate, from employer and survey data, the National Income Dynamics Study, age-specific mortality and employment rates, and tax and grant parameters. This costing exercise could be undertaken within a matter of months, rather than requiring research programme over several years. Two external benchmarks keep such a case honest: the OECD's 6.2% reduction in health expenditure under a best-quartile scenario is the empirical analogue of the share of avoided treatment cost that is actually realised [30], and Wang and Wang's welfare-maximising prevention share of 1.175% of GDP is a ceiling against which any proposed outlay can be read [20]. The ranking in Section 4 is the hypothesis such a case tests measure by measure; the measures in Section 5 are the down payment while it is built, and they produce the first South African numbers it will use.

7.1 Policy Recommendations

Prevention is a viable case for South Africa. The burden is concentrated in risks that fiscal and regulatory instruments reach, the country already operates those instruments in one domain and has built a Treasury-grade investment case in another, and the obstacle is where and when the return falls rather than its size. The recommendations concern the principle and the mechanism; the choice of measures, including whether and how to tax consumption, stays open by design.

Treat prevention as investment and cost it as one. Commission a national prevention investment case on the HIV model, covering both blocks, using the burden in Section 2, the channels in Section 4 and the WHO/UNDP method. Produce the two unit costs South Africa lacks, the indirect cost of a case and the delivery cost of screening at scale, as its first deliverable. Extend the case to tuberculosis, where a return of up to 39 to one has been modelled and never claimed nationally.

Choose the mechanism before the measures. Decide among the four designs in Table 5 how prevention's returns will be recognised when allocations are made and legislate or budget any dedicated funding as additional. Do this before any new rate is set.

Give prevention a protected multi-year allocation. Within a three-year planning window, a programme with a ten-year payback shows most of its costs but few of its returns. A designated preventive sub-programme in the health vote, protected across the Medium-Term Expenditure Framework and reported against the investment case, is the budgeting instrument that lets a position with a ten-year payback be held at all.

Fund case-finding and treatment on a single budget line. Detection without funded provision produces diagnosed patients and no health gain. The National Strategic Plan's 90-60-50 targets should be budgeted as one chain, and the HIV chronic-care platform is the delivery vehicle that exists.

Start where the return is already counted. Bring the two HIV prevention measures that came out cost-saving to full coverage inside the existing budget line, review the sodium

ceilings, restore the real value of the levy, and point the HIV platform at hypertension and diabetes detection, funded through to treatment. These require no new instrument and no new decision on tax.

What remains open is deliberately so. Whether South Africa raises the levy, extends content regulation, or does both, is a decision the investment case is designed to inform, and it belongs to Treasury and the Department of Health. The Sections above put in front of them every number that exists, the framework that would produce the ones that do not, and the four ways of bringing that return into allocation decisions.

References

1. National Treasury (2026). Budget Review 2026, Sections 2 to 5. Pretoria: National Treasury.
2. United Nations Development Programme (2026). Realizing the Return: Insights from a Decade of Investment Cases on Noncommunicable Diseases and Mental Health. New York: UNDP.
3. Statistics South Africa (2026). Gross Domestic Product, Fourth Quarter 2025. Statistical release P0441. Pretoria: Stats SA.
4. Chiu C, Johnson LF, Jamieson L, Larson BA, Meyer-Rath G (2017). Designing an optimal HIV programme for South Africa: does the optimal package change when diminishing returns are considered? BMC Public Health, 17, 143.
5. Besada D, Docrat S, Barrett B, Lund C (2025). The costs, outcomes and returns on investment of a package of intersectoral interventions for mental, neurological, and substance-use disorders, and intellectual disabilities in South Africa. SSM – Mental Health, 8, 100560.
6. Stacey N, Edoka I, Hofman K, Swart EC, Popkin B, Ng SW (2021). Changes in beverage purchases following the announcement and implementation of South Africa's Health Promotion Levy: an observational study. Lancet Planetary Health, 5(4), e200–e208.
7. Strauss-Kruger M, Wentzel-Viljoen E, Ware LJ, et al. (2023). Early evidence for the effectiveness of South Africa's legislation on salt restriction in foods: the African-PREDICT study. Journal of Human Hypertension, 37, 42–49.
8. Statistics South Africa (2026). Mortality and causes of death in South Africa: Findings from death notification, 2023. Statistical release P0309.3. Pretoria: Stats SA.
9. Statistics South Africa (2023). Non-communicable diseases: Findings from death notifications, 2008–2018. Report 03-08-01. Pretoria: Stats SA.
10. Institute for Health Metrics and Evaluation (2024). Global Burden of Disease Study 2023 results: South Africa, 2023, both sexes, all ages. Seattle: IHME. https://vizhub.healthdata.org/gbd-results/
11. Bradshaw D, Pillay van-Wyk V, Neethling I, et al. (2022). Overview: Second Comparative Risk Assessment for South Africa (SACRA2) highlights need for health promotion and strengthened surveillance. South African Medical Journal, 112(8B), 556–570.
12. Berry KM, Parker W, Mchiza ZJ, Sewpaul R, Labadarios D, Rosen S, Stokes A (2017). Quantifying unmet need for hypertension care in South Africa through a care cascade: evidence from the SANHANES, 2011–2012. BMJ Global Health, 2(3), e000348.
13. Stokes A, Berry KM, Mchiza Z, et al. (2017). Prevalence and unmet need for diabetes care across the care continuum in a national sample of South African adults: evidence from the SANHANES-1, 2011–2012. PLoS ONE, 12(10), e0184264.
14. Erzse A, Stacey N, Chola L, Tugendhaft A, Freeman M, Hofman K (2019). The direct medical cost of type 2 diabetes mellitus in South Africa: a cost of illness study. Global Health Action, 12(1), 1636611.
15. Kohli-Lynch CN, Erzse A, Rayner BL, Hofman KJ (2022). Hypertension in the South African public healthcare system: a cost-of-illness and burden of disease study. BMJ Open, 12(2), e055621.
16. Statistics South Africa (2026). Quarterly Labour Force Survey, Quarter 2: 2026. Statistical release P0211. Pretoria: Stats SA.
17. Gmeinder M, Morgan D, Mueller M (2017). How much do OECD countries spend on prevention? OECD Health Working Papers No. 101. Paris: OECD Publishing.
18. Roman JK (2015). Solving the Wrong Pockets Problem: How Pay for Success Promotes Investment in Evidence-Based Best Practices. Washington, DC: Urban Institute.
19. National Treasury (2019). Estimates of National Expenditure 2019, Vote 16: Health. Pretoria: National Treasury.
20. Wang F, Wang J-D (2021). Investing preventive care and economic development in ageing societies: empirical evidence from OECD countries. Health Economics Review, 11, 18.
21. Masters R, Anwar E, Collins B, Cookson R, Capewell S (2017). Return on investment of public health interventions: a systematic review. Journal of Epidemiology and Community Health, 71(8), 827–834.
22. World Health Organization (2018). Saving Lives, Spending Less: A Strategic Response to Noncommunicable Diseases. WHO/NMH/NVI/18.8. Geneva: WHO.
23. World Health Organization (2025). Saving lives, spending less: the global investment case for noncommunicable diseases. Geneva: WHO.
24. Pretorius C, Arinaminpathy N, Mandal S, Sahu S, Pai M, Mathiasson R, Wong B (2023). One million lives saved per year: a cost–benefit analysis of the Global Plan to End Tuberculosis, 2023–2030 and beyond. Journal of Benefit-Cost Analysis, 14(S1), 337–354.
25. Jousilahti P, Laatikainen T, Salomaa V, Pietilä A, Vartiainen E, Puska P (2016). 40-year CHD mortality trends and the role of risk factors in mortality decline: the North Karelia Project experience. Global Heart, 11(2), 207–212.
26. Colchero MA, Popkin BM, Rivera JA, Ng SW (2016). Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. BMJ, 352, h6704.
27. Taillie LS, Reyes M, Colchero MA, Popkin B, Corvalán C (2020). An evaluation of Chile's Law of Food Labeling and Advertising on sugar-sweetened beverage purchases from 2015 to 2017: a before-and-after study. PLoS Medicine, 17(2), e1003015.
28. UK Health Forum (2019). Case study: the Hungarian public health product tax. London: UK Health Forum, drawing on WHO Regional Office for Europe (2015) and Hungarian National Institute for Health Development assessments.
29. Schindler Y, Scott AJ (2025). The macroeconomic impact of chronic disease in the United Kingdom. Journal of the Economics of Ageing, 32, 100590.
30. OECD (2026). The Health and Economic Benefits of Tackling Non-Communicable Diseases. OECD Health Policy Studies. Paris: OECD Publishing.
31. Bell J, Berry T, Deanfield J, Hassan I, Joshi R, Schindler Y, Scott A (2024). Prosperity Through

Health: The Macroeconomic Case for Investing in Preventative Health Care in the UK. London: Tony Blair Institute for Global Change.
32. Grossman M (1972). On the concept of health capital and the demand for health. Journal of Political Economy, 80(2), 223–255.
33. Lawana N, Booysen F, Tsegaye A, Kapingura FM, Hongoro C (2020). Lifestyle risk factors, non-communicable diseases and labour force participation in South Africa. Development Southern Africa, 37(3), 446–461.
34. Ekholuenetale M, Nzoputam CI, Okonji OC, Barrow A, Wegbom AI, Edet CK (2023). Impact of chronic diseases on labour force participation among South African women: further analysis of population-based data. World, 4(1), 110–121.
35. Nwosu CO (2018). The relationship between employment and mental and physical health in South Africa. Development Southern Africa, 35(2), 145–162.
36. Ting H, Bozzola M, Ravetti C (2024). Tuberculosis and labour market participation: evidence from South Africa. South African Journal of Economics, 92(4), 444–474.
37. Lawana N, Kapingura FM, Tsegaye A (2023). The impact of non-communicable diseases on employment status in South Africa. Cogent Economics & Finance, 11(2), 2246005.
38. Ben-Porath Y (1967). The production of human capital and the life cycle of earnings. Journal of Political Economy, 75(4, Part 1), 352–365.
39. Jayachandran S, Lleras-Muney A (2009). Life expectancy and human capital investments: evidence from maternal mortality declines. Quarterly Journal of Economics, 124(1), 349–397.
40. Tangcharoensathien V, Limwattananon S, Patcharanarumol W, Thammatacharee J (2014). Monitoring and evaluating progress towards universal health coverage in Thailand. PLoS Medicine, 11(9), e1001726.
41. Matzopoulos RG, Truen S, Bowman B, Corrigall J (2014). The cost of harmful alcohol use in South Africa. South African Medical Journal, 104(2), 127–132.
42. Bertram MY, Steyn K, Wentzel-Viljoen E, Tollman S, Hofman KJ (2012). Reducing the sodium content of high-salt foods: effect on cardiovascular disease in South Africa. South African Medical Journal, 102(9), 743–745.
43. Stacey N, Summan A, Tugendhaft A, Laxminarayan R, Hofman K (2018). Simulating the impact of excise taxation for disease prevention in low-income and middle-income countries: an application to South Africa. BMJ Global Health, 3(1), e000568.
44. Schouw D, Mash R (2020). Cost and consequence analysis of the Healthy Choices at Work programme to prevent non-communicable diseases in a commercial power plant, South Africa. African Journal of Primary Health Care & Family Medicine, 12(1), a2217.
45. Vellios N, van Walbeek C (2024). Tax revenue lost due to illicit cigarettes in South Africa: 2002–2022. BMJ Open, 14(3), e077855.
46. Masuku SD, Lekodeba N, Meyer-Rath G (2022). The costs of interventions for type 2 diabetes mellitus, hypertension and cardiovascular disease in South Africa: a systematic literature review. BMC Public Health, 22, 2321.
47. Cohen JT, Neumann PJ, Weinstein MC (2008). Does preventive care save money? Health economics and the presidential candidates. New England Journal of Medicine, 358(7), 661–663.
48. National Department of Health (2022). National Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2022–2027. Pretoria: NDoH.
49. Haacker M, Fraser-Hurt N, Gorgens M (2016). Effectiveness of and financial returns to voluntary medical male circumcision for HIV prevention in South Africa: an incremental cost-effectiveness analysis. PLoS Medicine, 13(5), e1002012.
50. Meyer-Rath G, van Rensburg C, Larson B, Jamieson L, Rosen S (2017). Revealed willingness-to-pay versus standard cost-effectiveness thresholds: evidence from the South African HIV Investment Case. PLoS ONE, 12(10), e0186496.
51. World Health Organization (2024). Funding a tuberculosis-free future: an investment case for screening and preventive treatment. Geneva: WHO.
52. Alsdurf H, Empringham B, Miller C, Zwerling A (2021). Tuberculosis screening costs and cost-effectiveness in high-risk groups: a systematic review. BMC Infectious Diseases, 21, 935.
53. South African Revenue Service (2017). SARS to collect Sugar Tax from 1 April 2018. Media release, 15 December 2017. Pretoria: SARS.
54. Boachie MK, Thsehla E, Hofman K (2022). New developments with the Health Promotion Levy in South Africa. South African Medical Journal, 112(7), 454–455.
55. Masuku SD, Brennan AT, Vetter B, et al. (2024). Costs and cost-effectiveness of screening for non-communicable diseases in COVID-19 vaccination queues in Johannesburg, South Africa. BMC Public Health, 24, 1900.
56. Chelwa G, van Walbeek C, Blecher E (2017). Evaluating South Africa's tobacco control policy using a synthetic control method. Tobacco Control, 26(5), 509–517.
57. Parliament of the Republic of South Africa, Portfolio Committee on Health (2026). Media statements of 24 June 2026 (motion of desirability) and 12 August 2026 (clause-by-clause deliberations) on the Tobacco Products and Electronic Delivery Systems Control Bill [B33-2022]. Cape Town: Parliament.
58. Cashin C, Sparkes S, Bloom D (2017). Earmarking for health: from theory to practice. Health Financing Working Paper No. 5. Geneva: World Health Organization.
59. World Health Organization (2016). Earmarked tobacco taxes: lessons learnt from nine countries. Geneva: WHO.
60. Kaiser K, Bredenkamp C, Iglesias R (2016). Sin Tax Reform in the Philippines: Transforming Public Finance, Health, and Governance for More Inclusive Development. Directions in Development. Washington, DC: World Bank.
61. Pongutta S, Suphanchaimat R, Patcharanarumol W, Tangcharoensathien V (2019). Lessons from the Thai Health Promotion Foundation. Bulletin of the World Health Organization, 97(3), 213–220.
62. Vallgårda S, Holm L, Jensen JD (2015). The Danish tax on saturated fat: why it did not survive.

European Journal of Clinical Nutrition, 69, 223–226.
63. Powell LM, Leider J (2020). Beverage prices and volume sold after sweetened beverage tax repeal in Cook County, Illinois. JAMA Network Open, 3(12), e2031083.
64. Choi SE (2018). Reducing Tobacco Use through Taxation: The Experience of the Republic of Korea. WBG Global Tobacco Control Program country case study. Washington, DC: World Bank.
65. World Health Organization and United Nations Development Programme (2019). Non-communicable Disease Prevention and Control: A Guidance Note for Investment Cases. Geneva and New York: WHO/UNDP.