FISCAL POLICIES FOR POPULATION HEALTH IN SOUTH AFRICA

REPORT PREPARED BY
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PRICELESS SA
Priority Cost Effective Lessons for System Strengthening

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FOREWORD

The Preamble to our Constitution reminds us that it was adopted, amongst other things, to "heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights" and to "improve the quality of life of all citizens and free the potential of each person".

Twenty years and nearly a generation later, these constitutional goals remain largely unfulfilled. We would be wrong to say nothing has changed. Much has changed, but the bitter legacies of apartheid and colonialism have not been eradicated yet.

One of the key measures of success in improving the quality of life of all citizens is fostering good health, but in 2016, as this report by PRICELESS shows, the benefits of good health elude many of us.

South Africans bear a crushing burden of disease. The scourge of HIV/AIDS has affected millions of us, and diseases such as tuberculosis have spread widely in its wake. More recently, changing lifestyles have heralded an alarming increase in non-communicable chronic conditions such as diabetes and ischemic heart disease. Furthermore, we have high rates of severe physical trauma caused by interpersonal violence and motor vehicle injuries.

What can we do to improve the quality of life of South Africans in the face of the burden of disease? This is the question our Constitution directs us to consider. The report provides a fine starting point for that civic discussion. It focuses not on the health care system itself but on fiscal policies that might foster conditions for good health. It analyses the burden of disease in South Africa and its drivers, and assesses the evidence to determine whether – and which – fiscal policies could alleviate that burden.

In fostering a civic discussion, we need to recognise that loud arguments are no substitute for careful, independent research. We should remember too that shifts in fiscal policy might harm existing interests, which may then seek to influence the policy debate. Thus, all arguments tendered in the debate have to be assessed to determine whether they are cogent and convincing.

We congratulate PRICELESS SA on their report. We have no doubt that it was inspired by the constitutional vision of a better quality of life for all South Africans, nor do we doubt that it will make a major contribution to the health and fiscal policy debates as to how best that vision may be achieved.

KATE O'REGAN AND LEILA PATEL
CO-CHAIRS OF THE EXPERT PANEL
JANUARY 2017

INQUIRY ON FISCAL POLICIES FOR HEALTH PANEL AND SECRETARIAT

THE INQUIRY ON FISCAL POLICIES FOR HEALTH

The Inquiry on Fiscal Policies for Health is an exploratory consultative research endeavour to explore the potential uses of fiscal policy tools to address and prevent disease in South Africa. The Inquiry was structured around a research secretariat housed at PRICELESS SA at the University of the Witwatersrand School of Public Health, and an advisory panel. The panel, chaired by Kate O'Regan and Leila Patel, consisted of experts drawn from South Africa's public sector, private sector and academia. Through a series of meetings in 2015 and 2016, deliberation took place between the expert panel and secretariat, first to identify criteria upon which to interrogate potential fiscal instruments, and, second, to identify which fiscal instruments to consider. A parallel process took place simultaneously in India, led by the Center for Disease Dynamics, Economics & Policy and the Public Health Foundation of India.

This report documents the findings of the Inquiry on Fiscal Policies for Health. We find preliminary evidence that fiscal measures – including taxes and subsidies – can improve health in the short term without relying either on additional budgetary allocations to Ministries of Health or on public health systems to work more efficiently as well as raise revenue. These fiscal measures could thus help to reduce inequalities in health and contribute to progress towards meeting numerous Sustainable Development Goal (SDG) targets.

GUIDE TO THE REPORT

Chapter 1 provides an overview to the report and chapter 5 presents concluding remarks. Chapters 2 - 4 are outlined below.

Chapter 2 outlines the disease burden in South Africa, placing the focus on non-communicable diseases (NCDs) and their associated risk factors.

While some of the leading health concerns are HIV/AIDS, tuberculosis and other infectious diseases, the changing dietary patterns, evolving consumer behaviour and ageing of the population have made NCDs a growing public health concern. The key to constructing effective policy interventions that alleviate this burden is understanding the risk factors that contribute to increases in acute and chronic disease rates. In general, lifestyle appears to be a major driver of poor health outcomes, with alcohol, tobacco, high body mass index, and poor diet all found among the leading risk factors. These selected risk

factors represent the major potentially modifiable determinants of ill-health in South Africa. They are characterised largely by over-consumption of harmful products and under-consumption of beneficial products, making them ideal targets for fiscal interventions that drive market behaviour.

Chapter 3 describes the fiscal landscape in South Africa by characterising the major uses of taxes and subsidies.

The country has undergone expansion in public service provision post-1994, in large part due to careful revenue-raising and judicious spending. Most of the government's tax revenue comes from income taxes and VAT. However, excise taxes play an important role in not only accumulating additional revenue but also compensating for negative externalities linked to certain goods, namely tobacco and alcohol. Similarly, there are instances of subsidies being used to encourage consumption of goods with positive externalities, such as condoms. While taxes and subsidies already play a significant role in the daily lives of South Africans, there is still room for additional fiscal interventions that correct market failures.

Chapter 4 presents a set of potential fiscal policy instruments that could tackle South Africa's disease burden.

The available tools considered include excise taxes, subsidies and income transfers. Taxes, such as those on alcohol and tobacco, present the opportunity to reduce the occurrence of behaviours responsible for lifestyle and non-communicable diseases. Other interventions considered include subsidies to reduce the economic burden of transportation on pregnant women and incentives for chronic disease treatment adherence.

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EXECUTIVE SUMMARY

South Africa has made tremendous progress in public health over the past two decades of the post-apartheid era, including reductions in child deaths and communicable diseases, and an immense scale-up of treatment for people with HIV. Much work remains to be done, however, including the planned nationwide roll-out of the National Health Insurance scheme in 2025. This continues the emphasis on providing services through the health care system, which is important but not the only pathway to improving population health.

While clinical care is one essential component of a population health improvement strategy, by itself it will not solve all of South Africa's health problems. This is particularly true for the noncommunicable disease (NCD) epidemic that continues to grow. Behaviours that fall into the "lifestyle" category are the major drivers of poor health outcomes from NCDs, leading with alcohol, tobacco, high body mass index, and poor dietary choices. These risk factors—characterised by over-consumption of harmful products and under-consumption of beneficial ones—are the major potentially modifiable determinants of ill-health in South Africa. They are ideal targets for fiscal interventions—taxes or subsidies, depending on the desired outcome—that can alter behaviour to improve health. Fiscal policies are powerful but often overlooked tools for improving population health and health equity.

Fiscal Policies for Population Health in South Africa examines the potential for a set of fiscal policy interventions to reduce South Africa's health burden. Using fiscal instruments to achieve positive health outcomes is not a new strategy, but the analyses in this report suggest that they could be used to much greater effect by saving lives, preventing a great deal of illness, and helping to contain the ballooning costs of health care and social grants. The report focuses on fiscal interventions that not only improve health outcomes, but can also raise revenue to help alleviate the added fiscal burden of the impending National Health Insurance programme.

Guided by an advisory expert panel drawn from academia, government and the private sector, the analysis and research for this report were conducted by a secretariat based at the University of Witwatersrand School of Public Health, with a parallel process led by Indian counterparts through the Center for Disease Dynamics, Economics & Policy. Having a strong partner in the global South was valuable. South Africa and India are both middle-income countries embarking on universal health coverage, yet with limited fiscal space to raise additional revenue; similarly, each faces significant health challenges from industry-driven consumption of tobacco, alcohol and sugary beverages.

The report finds that policy-makers should consider fiscal interventions that target public health concerns. Initial analyses of a selection of excise taxes studied here would, by themselves, reduce lives lost by hundreds of thousands over the next 30 years. The fiscal interventions highlighted have the remarkable potential to improve both public health and fiscal well-being: they will save lives, cut costs and raise revenue.

CHAPTER 1

INTRODUCTION AND OVERVIEW

BACKGROUND

In 2015, South Africa joined the United Nations in establishing 17 SDGs that, replacing the Millennium Development Goals (MDGs) of 2000, will guide policy for the next 15 years. This report highlights one type of intervention—fiscal policies— that could help South Africa achieve several targets of Goal 3: ensure healthy lives and promote well-being for all. These targets are to:

- reduce by one-third premature mortality from non-communicable diseases;
- strengthen the prevention and treatment of substance abuse;
- reduce the number of deaths from hazardous chemicals and pollution of the environment;
- strengthen implementation of World Health Organization (WHO) recommendations on tobacco control; and
- achieve universal health coverage.

South Africa is preparing for the introduction of National Health Insurance (NHI) with the goal of offering universal health coverage (UHC) by 2025. NHI aims to promote equity and efficiency to ensure that all South Africans have access to affordable, quality health care services regardless of their employment status and ability to make a direct monetary contribution to the NHI Fund. Eleven districts have been selected as NHI pilot sites.

As part of this NHI initiative, South Africa has given renewed focus to quality improvement, work that has included a revised set of core national standards and the identification of critical areas for the attainment of quality standards across all facilities. An Office of Health Standards Compliance has been established to facilitate this.

The transition of the public health sector after apartheid places the country in a favourable position to achieve UHC and meet other targets of the SDGs. There are, however, many challenges that will have to be addressed.

Since 1994, progress in South Africa's public health sector has taken place in a relatively conducive and supportive financial and policy environment, with attention being given to strengthening health systems and, especially since 2009, responding to the HIV epidemic in

a significant way.[1] Free health care has been available to pregnant women and children since 1996 and, more recently, a series of new policies has been developed, including the 10 Point Plan, the Primary Health Care Re-engineering Strategy and the Integrated School Health Policy.[2] Skilled attendance at birth is high, with more than 90% of births occurring in health facilities.[3] The Choice on Termination of Pregnancy Act adopted in 1996 has seen an uptake of legal abortions, increasing from 45,000 in 2005 to 83,000 in 2012, and contraceptives have been freely available in public clinics since 2001.

Immunisation programmes have increased vaccine availability and raised immunisation rates. In addition to the introduction of routine pneumococcal and rotavirus vaccinations, measles vaccinations have been offered universally and heavily promoted since 2009 for children aged nine months and 18 months. In 2011, the National Department of Health made a major policy shift on infant feeding by adopting WHO guidelines on exclusive breastfeeding until six months and continued appropriate complementary feeding until two years of age.[4]

Furthermore, South Africa has high public expenditure on both health care and social welfare. The child support, care dependency and foster child grants, which are aimed at supporting vulnerable families and caregivers with children, have been shown to have a positive impact on health.[5]

More recently, the focus of primary health care re-engineering has been to improve access to and the quality of health care, specifically at district level. This includes strengthening district clinical specialist teams; providing municipal ward-based outreach teams and integrated school health services; a greater emphasis on the delivery of community-based services; and an emphasis on the social determinants of health.[6]

These health care initiatives have brought South Africa closer to various SDG targets related to maternal and child health, sexual health, infectious disease and health care access.

CHALLENGES

Despite the progress made and the commitment to NHI, the health sector continues to face significant challenges, including economic and social disparities, inequitable distribution of health resources, a quadruple burden of disease, access barriers and pharmaceutical stock-outs.

South Africa has seen a decline in absolute poverty since 1994, but inequality has increased. South Africa is now considered the most unequal society in the world, with a Gini coefficient of 0.65.[7] The employment rate is high at 25%,[8] and 54% of black South Africans remain in absolute poverty.[9] Significant differences in rates of disease and mortality persist between different socio-economic classes, with the poorest of families bearing the brunt of the disease burden.

The public sector is tax-funded, with approximately 12% of the government's total budget allocated to health. These funds are mostly controlled by the nine provinces, and as a result, the allocation of resources and the standard of health care delivery varies from province to province. Provincial health departments provide and manage health services via a district-based, public health care model. Many challenges remain in terms of health infrastructure development and maintenance, human resources and supply chain management.

The private sector is funded through insurance by private medical schemes. These schemes are regulated by the Prescribed Minimum Benefits (PMBs), which were legislated in 1999 and involve the scheme paying in full for a set of 27 chronic and 270 acute conditions, the aim being to offer members protection against catastrophic

expenditure. Five times more is spent on the average private insurance enrollee than on an uninsured person using the public sector. Less than 15% of the population are members of private sector medical schemes, yet 46% of all health care expenditure is attributable to these schemes.[10]

While South Africa's combined public and private investment in health ranks relatively high compared to that of emerging economies, the country's maternal and child health indicators have not yet met national targets, and rates of obesity related non-communicable diseases such as high blood pressure and diabetes are mounting.

Compared to Brazil, Russia, India and China (BRIC countries), South Africa has the highest under-five mortality rate and achieved the lowest reduction in child mortality (20%) between 1990 and 2011, compared to India (69%) and Brazil (72%).[11] It was estimated that in 2010 approximately 70,000 children died, 23,000 babies were stillborn and more than 1,000 maternal deaths occurred, the latter largely as a result of HIV/AIDS.[12]

In a similar vein, antenatal care attendance before 20 weeks is not high enough, at 50% nationally.[13] Teenage pregnancy rates are high, at almost 8% of all births,[14] and an estimated 50% of all abortions are performed illegally.[15] Immunisation coverage at national level masks inequities across the 52 districts, with some districts recording suboptimal coverage.[16]

Progress has been made in interventions for diarrhoea, including rotavirus vaccinations, exclusive breastfeeding promotion and the provision of water and sanitation services. But diarrhoea remains one of the leading causes of morbidity and mortality in under-five children. While more than 90% of South Africans do have access to a clean public water source and over 70% utilise a latrine or toilet,[17] approximately six million households (46%) still do not have access to piped water in their homes and 1.4 million households (11%) lack access to sanitation services[18] The sanitation services in more than 3.8 million households in formal areas do not yet meet the required standards.

Coverage also remains low for other recommended interventions to prevent childhood deaths, such as hand-washing with soap and treatment with an oral rehydration solution. Although these health promotion interventions are affordable, challenges remain for escalating their impact.

South Africa remains the epicentre of the HIV epidemic. Despite progressive policies and increasing numbers of individuals on antiretroviral treatment, more than 40% of maternal deaths are still HIV-related.[19] While Prevention of Mother to Child Transmission (PMTCT) national coverage is high at 96%, this varies significantly between provinces and districts, and is hampered by gaps in post-natal care and infant follow-up as well as late presentation to antenatal clinics. Tuberculosis (TB) remains the leading disease-related cause of death in the country, and 60% of TB patients are co-infected with HIV.

Non-communicable diseases are also on the rise, with over half the population overweight and obese. South Africa is now considered the most obese in sub-Saharan Africa.[20] In the past decade (2003-2012) obesity prevalence has increased among men by 2%, from 9% to 11%, and among women by 12%, from 27% to 39%.[21] This places the population at greater risk of non-communicable diseases (NCDs). In 2008, cardiovascular disease, type 2 diabetes and cancer together accounted for 27% of all deaths in the country, almost equating to the mortality from HIV/AIDS and TB.[22] In 2009, more than 73,000 disability-adjusted life years were attributable to type 2 diabetes and its sequelae; and the number of diabetes-related amputations and cases of blindness was estimated at approximately 2,000 and 8,000, respectively.[23]

These chronic non communicable diseases place significant financial strain on families and on the

country. Moderate obesity (BMI 30-35 kg/m^2) is associated with an 11% increase in health care costs, and severe obesity (BMI >35 kg/m^2) with a 23% increase.[24] Total health expenditure for diabetes in South Africa will increase to between 1.1 to 2 billion USD in 2030.[25] The average hospitalisation costs per patient with diabetes in South Africa in 2009 were about R27,000, compared to R18,000 for non-diabetic patients.[26] Obesity and its associated diseases and ailments also negatively impact the workplace by decreasing productivity and increasing staff turnover, absenteeism and worker compensation claims.[27]

Violence and injury are a growing health burden in South Africa, accounting for 12% of all deaths, with approximately 23,200 deaths in 2009 due to interpersonal violence and 13,200 due to traffic crashes. A significant proportion of these deaths is attributable to alcohol consumption. The overall injury death rate is higher than the African continental average and nearly twice that of the global average. The rate of homicide of women by intimate partners is six times the global average.[28]

In addition to this growing quadruple burden of disease (maternal and child mortality; HIV/AIDS; violence and injury; and NCDs), there are numerous barriers impeding access to health services. These include the distance to health care facilities and long waiting times. The average travelling time to a health facility for the poorest 20% of households is nearly 40 minutes, with a single visit on average costing 11% of the household's monthly expenditure on transport.[29]

THE POTENTIAL OF FISCAL INTERVENTIONS TO IMPROVE HEALTH IN SOUTH AFRICA

In view of this complex health profile and seriously challenged formal health system, ensuring the achievement of a long and healthy life for all citizens will require more than treatment. What is crucial will be to prevent disease in the first place, by developing effective and cross-sectoral public health policies.

Despite a growing recognition that the social determinants of health exert a greater influence on population health than direct interventions within the health sector,[30] there is little understanding of how existing fiscal and trade policy instruments can be leveraged to improve health. Experiences from developing countries show that these instruments work well when public institutions are credible and strong, when consumers and producers respond to changes in prices, and when the policies are appropriately designed to ensure that the most vulnerable people benefit from them.

The prospects for the adoption of such fiscal policies are encouraging. For instance, many Asian and African states have mandates to provide universal health coverage, and South Africa in particular is embarking on the road to NHI. However, this wave of global interest in UHC is likely to encounter several important obstacles, including the severity of the disease burden they face and the availability of sufficient revenues to finance services. The use of health-focused fiscal policies could ease both of these concerns.

CHAPTER 2

THE BURDEN OF DISEASE AND MODIFIABLE RISK FACTORS

INTRODUCTION

Post-apartheid South Africa is affected by a quadruple burden of disease stemming from communicable, non-communicable, prenatal and maternal diseases, and violence or injury-related disorders[1]. The HIV/AIDS and tuberculosis epidemics have been complicated by the prevalence of drug resistance and HIV-tuberculosis co-infection. Changing dietary patterns, evolving consumer behaviour, and the ageing of the population have made non-communicable diseases (NCDs) an emerging public health concern, impacting on those both affected and unaffected by infectious diseases and raising demand for acute and chronic health-care services. Violence and injury-related deaths occur in South Africa at a rate well above the world average.

The key to evidence-based, effective, and cost-effective interventions that address public health lies in successful identification and in-depth understanding of the connection between the burden of disease and risk factors. An important initial step is to take a close look at the leading risk factors responsible for the greatest burden of disease. This chapter presents an overview of the existing literature on the burden of disease and associated risk factors in South Africa.

DEFINITIONS AND OVERVIEW

Studies of the burden of disease seek to quantify the extent to which morbidity and mortality are attributable to the diseases and risk factors prevalent in a country. First one must identify the diseases responsible for morbidity and mortality; then one must identify the modifiable risk factors that are associated with the prevalence of the diseases;[2] and finally one must quantify the ill health and loss of life attributable to the diseases and risk factors.

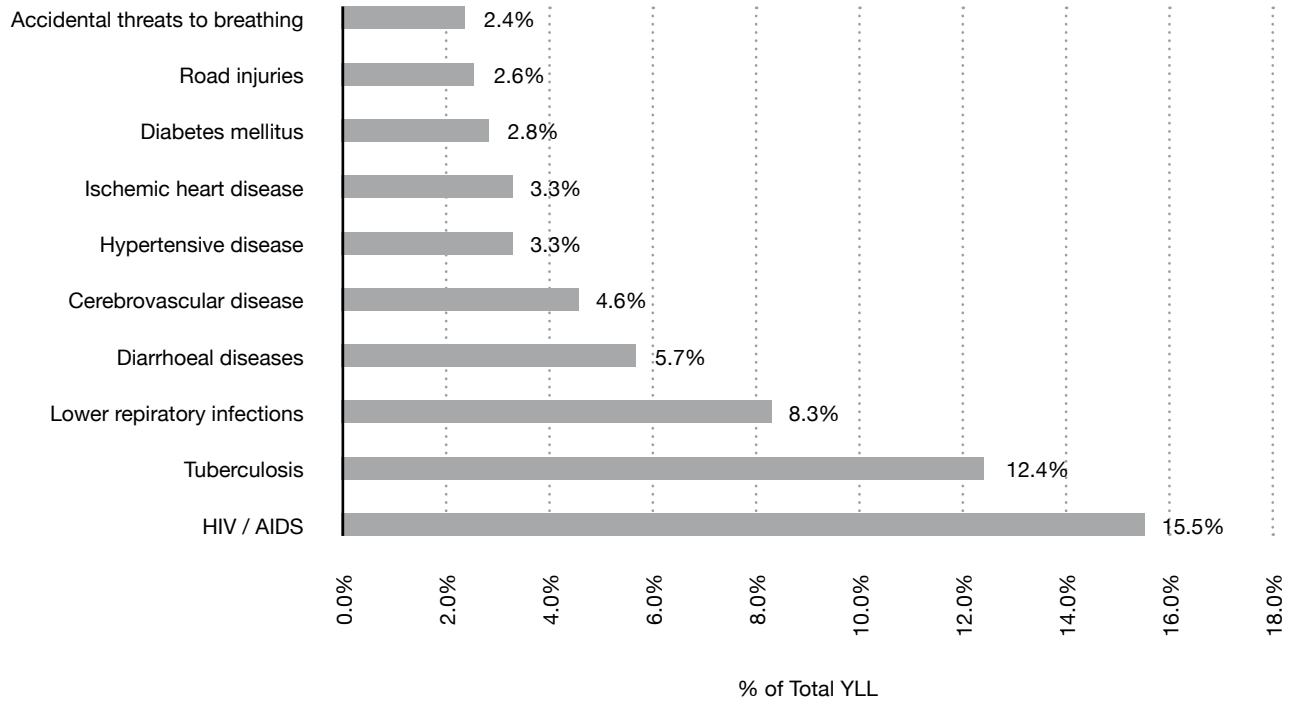
A risk factor is a behaviour, characteristic or condition that causes an increased likelihood of disease or injury. Risk factors are correlates of the diseases that proximately lead to morbidity and mortality. For example, unprotected sex is a risk factor for HIV, while HIV infection is the disease that ultimately leads to loss of health; similarly, obesity is a risk factor for type 2 diabetes mellitus, and type 2 diabetes mellitus is the disease responsible for ill health.

Ill health is generally quantified by disability-adjusted life years (DALYs). DALYs attributable to a particular disease or risk factor are the sum of years of life lost (YLLs) and years living with disability (YLD) caused by that disease or risk factor. DALYs are a convenient summary statistic for measuring the morbidity and mortality caused by a disease or risk factor. More plainly, they can be understood as the years of healthy life that are lost.

Our analysis is based on three primary sources: the 2000 Medical Research Council Burden of Disease study; the 2010 Institute for Health Metrics' (IHME) Global Burden of Disease study; and the Burden of Disease portions of the Health System Trust's District Health Barometer report 2014/15.

FIGURE 1:

LEADING CAUSES OF YEARS OF LIFE LOST IN 2013



Source: District Health Barometer 2014/2015

Figure 1 presents the leading diseases responsible for YLLs in South Africa in 2013. Infectious diseases, namely TB and HIV/AIDS, account for 15% and 12.4% of total YLLs, respectively, and are the leading contributors to the burden. The combined contribution of NCDs, hypertensive disease, ischemic heart disease, diabetes mellitus and cerebrovascular diseases is 14% of total YLLs, which is comparable to that of HIV/AIDS or TB. Another significant category of contributors to YLLs are road injuries, which together contribute 2.6% of total YLLs.

Table 1 below presents the leading risk factors responsible for diseases resulting in morbidity and mortality, as identified by the MRC SACRA 2000 National Burden of Disease and Comparative Risk Factor Assessment (henceforth 'MRC SACRA 2000') and the IHME Global Burden of Disease 2010 Study (henceforth 'IHME GBD 2010'). As will be noted, there are discrepancies between the two studies. These arise from their methodological differences (specifically, their selection of modifiable risk factors) as well as changes over time in the disease environment and the

prevalence of risk factors. Importantly, the IHME GBD 2010 excluded unsafe sex as a modifiable risk factor, which in the context of the South African HIV/AIDS epidemic is highly consequential for risk factor rankings.

Nevertheless, these studies are the most complete efforts to date at quantifying the South African health burden by risk factor and disease.

TABLE 1:

MODIFIABLE RISK FACTORS AS % OF TOTAL DALYS

	RISK FACTOR, MRC SACRA 2000	% DALYS		RISK FACTOR, IHME GBD 2010	% DALYS
1	Unsafe sex / STIs	31.5%	1	Alcohol use	6.0%
2	Interpersonal violence (risk factor)	8.4%	2	High body mass index	4.5%
3	Alcohol harm	7.0%	3	High blood pressure	3.9%
4	Tobacco smoking	4.0%	4	Dietary risks	3.7%
5	High BMI (excess body weight)	2.9%	5	Smoking	3.3%
6	Childhood and maternal underweight	2.7%	6	High fasting plasma glucose	3.1%
7	Unsafe water, sanitation and hygiene	2.6%	7	Suboptimal breastfeeding	3.0%
8	High blood pressure	2.4%	8	Physical inactivity	1.5%
9	Diabetes (risk factor)	1.6%	9	Iron deficiency	1.4%
10	High cholesterol	1.4%	10	Drug use	1.2%
11	Physical inactivity	1.1%	11	Household air pollution	1.0%
12	Low fruit and vegetable intake	1.1%	12	Childhood underweight	0.9%
13	Iron deficiency anemia	1.1%	13	Occupational risks	0.7%
14	Vitamin A deficiency	0.7%	14	Intimate partner violence	0.6%
15	Indoor air pollution	0.4%	15	High total cholesterol	0.5%
16	Lead exposure	0.4%	16	Vitamin A deficiency	0.4%
17	Urban air pollution	0.3%	17	Ambient PM pollution	0.3%
18	Other	30.4%	18	Lead	0.3%
			19	Sanitation	0.2%
			20	Zinc deficiency	0.2%
			21	Unimproved water	0.1%
			22	Childhood sexual abuse	0.1%
			23	Low bone mineral density	0.03%
			24	Radon	0.02%
			25	Ozone	0.01%
	Total	**100.0%**		**Total**	**37.0%**

MAJOR RISK FACTORS AND DISCUSSION

ALCOHOL

Alcohol use is ranked as the largest (6.0% of DALYs) and third largest (7.0% of DALYs) risk factor in South Africa by the IHME GBD study and MRC SACRA 2000, respectively. Annual per capita consumption of alcohol in South Africa is approximately 8 litres, a low figure compared to developed countries. However, when one accounts for the fact that only about 50% of men and 20% of women report consuming alcohol, the per capita consumption among those who do drink is significantly higher.[3]

While moderate consumption of alcohol has been shown to be beneficial for cardiovascular and cerebrovascular disease, alcohol consumption is associated with a wide range of diseases of significant consequence.[4]

In particular, alcohol abuse can cause damage to the liver and result in cirrhosis. Alcohol consumption during pregnancy can result in Fetal Alcohol Syndrome and low birth weight, both of which have severe long-term developmental consequences. Alcohol is also linked to neuropsychiatric conditions such as unipolar depression. Most significantly, alcohol consumption is the leading risk factor associated with intentional and unintentional injuries, including interpersonal violence, self-inflicted violence, and road traffic injuries.

HIGH BODY MASS INDEX

South Africa is characterised by a dual burden of overweight and underweight.[5] However, overweight is a growing problem of significant concern in South Africa. The proportion of those with obesity has risen from 7.0% among men and 30.0% among women in 1998 to 10.6% among men and 39.2% among women in 2012.[6]

Body weight is determined by one's caloric consumption and expenditure; as such, it is a function of diet and lifestyle. Increasing urbanisation and rising incomes have seen South Africans' diets change, with increases in the consumption of processed foods and sugared beverages.[7] Forecasted change in dietary patterns, including further increases in consumption of sugary beverages, will lead to a further increase in the prevalence of obesity and overweight.[8]

Excess body weight is associated with the onset of numerous non-communicable diseases. Higher BMIs are associated with type 2 diabetes mellitus (T2DM), ischemic heart disease (IHD), hypertensive disease, ischemic stroke, osteoarthritis and various cancers, including colon cancer, breast cancer and endometrial cancer.[9]

As shown in Figure 1, these non-communicable diseases are responsible for a significant portion of South Africa's premature mortality.

UNSAFE SEX/STIS

South Africa has the largest HIV-positive population in the world, with more than five million HIV-positive individuals.[10] HIV/AIDS and other sexually transmitted infections (STIs) are transmitted through bodily fluid transmission during unshielded sex. The MRC SACRA 2000 study attributed 31% of South Africa's burden of disease to unsafe sex. Since 2000, South Africa has rolled out the largest antiretroviral programme in the world, with three million individuals on treatment, and significantly reduced the morbidity and mortality associated with HIV.[11] The number of new HIV infections in 2012 is estimated to be 469,000.[12]

Thus, unsafe sex is still placing individuals at risk of contracting HIV/AIDS and other STIs, and as such is likely to be the risk factor responsible for the largest loss of healthy life years. In addition, South Africa's prevalence of STIs, including Herpes simplex Virus 2 (HSV-2)

infection and gonococcal infection, is higher than in other countries: beyond their own significant consequences, among them cervical cancer and birth complications, these infections increase susceptibility to HIV infection.[13]

SMOKING

The overall prevalence of smoking has fallen substantially from 32% in 1992 to 24% in 2003 to 16% in 2012.[14] Despite this trend, the health effects of tobacco consumption are such that smoking was ranked as the fourth leading risk factor by the MRC SACRA 2000 study (4% of DALYs) and the fifth leading risk factor by the IHME GBD study (3.3% of DALYs).

The fall in tobacco use is related to a range of policy interventions, including increased excise taxes, advertising regulations and restrictions on smoking in public. Smoking prevalence varies significantly across race and gender groups, with the highest prevalence seen among coloured and Indian males, with prevalence generally lower among females.

Smoking results in a diverse set of non-communicable diseases, including a variety of cancers (lung cancer being the most significant), cardiovascular and respiratory diseases such as chronic obstructive pulmonary disease (COPD), and diabetes.

Smoking-induced diseases differ in their contribution to mortality, with cardiovascular diseases accounting for the most deaths, followed by COPD and lung cancer. Tobacco-attributable mortality rates vary across subgroups of the South African population, reflecting their varied smoking prevalences.

HIGH BLOOD PRESSURE

High blood pressure (HBP), or hypertension, is a significant and growing concern for South Africa. Globally, two-thirds of strokes and half of the cases of ischemic heart disease (IHD) are attributable to raised blood pressure.[15] The MRC SACRA 2000 study estimated that 2.4% of total DALYs were attributable to high blood pressure, while the IHME GBD put the estimate at 3.9%.

Analysis of the WHO Study on Ageing and Adult Health has revealed that, among South Africans over the age of 50, the prevalence of hypertension[16] is approximately 78%; that awareness of hypertension status among hypertensives was less than 40%; and that only 32% of hypertensives were on treatment.[17]

High blood pressure causes damage to the arteries, and as such has been linked to the onset of IHD, stroke and renal failure. Importantly, the damage caused by HBP does not occur only above a threshold blood pressure level, but is correlated with levels throughout the range of blood pressure measurements.[18] Hypertension itself is closely linked to obesity and diet (sodium intake in particular), and is hence amenable to interventions that target those risk factors.

HIGH FASTING BLOOD PLASMA GLUCOSE

High fasting plasma glucose was ranked as the sixth leading risk factor for its contribution of 3.1% DALYs under the IHME GBD 2010 study, and was ranked ninth among the leading risk factors under the MRC SACRA 2000 study for its contribution of 1.6% DALYs. In South Africa, 5.5% of the population aged 30 years or older was diagnosed with diabetes in 2000.[19]

Unhealthy diet leads to diabetes and elevated blood glucose, which is itself a risk factor for many cardiovascular diseases, including coronary heart disease, ischemic stroke, haemorrhagic stroke and myocardial infarction. Diabetes is also associated with the onset of its own debilitating conditions, among them diabetic retinopathy and diabetic foot ulcers.

INFANT AND MATERNAL UNDERWEIGHT

Maternal or childhood underweight, which contributes to 2.7% of DALYs, was ranked sixth by the MRC SACRA 2000 study. Childhood underweight alone, on the other hand, which

contributes to 0.9% of DALYs, was ranked twelfth among leading risk factors by the IHME GBD 2010 study.

Undernutrition in pregnancy leads to lower birth weight in the offspring. It has been suggested that childhood weight correlates positively with adult lean body mass and that underweight reduces the risk of obesity later in life.

Maternal and childhood underweight affects the lipid profiles linked to risk for cardiovascular diseases. Inadequate maternal weight gain during pregnancy and childhood underweight are associated with increased blood pressure and damaged lung structure and function in adulthood. The inadequate intake of calcium and vitamin D is linked to suboptimal bone mass in the offspring, which, in turn, is linked to a higher chance of bone fractures in adulthood.

Maternal and childhood underweight also constitute a risk factor for a variety of non-communicable diseases, including type 2 diabetes, cardiovascular diseases and coronary heart diseases. An association between increased risk for cancers and high birth weight has been established in high-income countries, but the association may not apply to countries at different developmental stages. Chronic diseases are especially common in undernourished children who experience rapid weight gain after infancy. Nutrition deprivation is also associated with mental illness, especially schizophrenia.

DIETARY RISKS

Dietary factors including low fruit and vegetable intake, iron deficiency anaemia and Vitamin A deficiency – with respective DALY contributions of 1.1%, 1.1%, and 0.7% and a combined contribution of 2.9% – were considered the twelfth, thirteenth, and fourteenth leading risk factors based on the MRC SACRA 2000 study. Similar analysis from the IHME GBD 2010 study suggested a 1.4% contribution to DALYs for iron deficiency, which ranks ninth among leading risk factors, and a 0.4% contribution to DALYs for Vitamin A deficiency, which ranks sixteenth. The IHME combined contribution to DALYs by dietary risk factors was 1.8%.

Low fruit and vegetable intake is a risk factor for NCDs including ischemic heart disease, various cancers, type 2 diabetes mellitus and obesity. The average intake of fruit and vegetables in South Africa was shown to be 200g/day in 2000.[20] This is half the WHO-recommended amount of 400g/day.[21] Poverty and lack of access are reasons for fruit and vegetable consumption being lower in rural and informal urban areas than in urban areas.[22] Low intake of fruit and vegetables can result in low dietary fibre and deficiencies of micronutrients such as Vitamin A and Vitamin C.[23]

Anemia is a condition where one does not produce enough red blood cells. The most common form is Iron Deficiency Anemia (IDA), which arises when one does not have enough of the mineral iron. Overall, the MRC SACRA 2000 study attributes 0.4% of total mortality and 1.1% of all DALYs in South Africa in 2000 to IDA.

Anemia is prevalent among 22.6% of children aged 0 to 4, and a quarter of this figure represents IDA.[24] IDA in children has been linked to impaired resistance to infections, delayed cognitive and motor development, mental retardation and increased mortality. IDA often arises in women during pregnancy, with 9% to 12% of pregnant women suffering from IDA.[25] IDA during pregnancy can have severe consequences for pregnant women and be responsible for pre-term and underweight delivery as well as elevated perinatal and maternal mortality.

Vitamin A deficiency is another key dietary risk factor. Vitamin A is responsible for normal vision, gene expression, growth and immunity, along with many other important functions. However, 33.8% of children under the age of four and an estimated 1-6% of pregnant women in South Africa were found to be Vitamin A-deficient.[26] The MRC SACRA 2000 study attributes 0.7% of all DALYs to Vitamin A deficiency in South Africa.

OCCUPATIONAL RISKS

Industrial production in South Africa places workers at risk through various kinds of occupational exposure. The large gold and platinum mining industries are associated with a significant health burden, including silicosis, tuberculosis and HIV/AIDS. The IHME 2010 GBD study attributes 0.7% of DALYs to occupational risks such as occupational injury, lower back pain, particulates, noise, carcinogens and asthmagens.

INDOOR AND OUTDOOR AIR POLLUTION

Indoor air pollution arises from biomass (e.g. wood) combustion for heating or cooking. Outdoor (ambient) air pollution arises from the combustion of fossil fuels in motor vehicles, industry or electricity production. The MRC SACRA 2000 study estimated that 0.4% of DALYs were attributable to indoor air pollution, and 0.3% to urban air pollution, while the IHME 2010 GBD study attributed 1.0% of DALYs to indoor air pollution and 0.3% to ambient air pollution.

All air pollution is associated with increased respiratory and cardiovascular disease. Indoor air pollution largely affects poorer rural households that rely on biomass for fuel, while outdoor air pollution affects all urban dwellers. Prenatal exposure to air pollution has also been linked to low and very low birth weight. In South Africa, the proportion of households reliant on biomass as an energy source is falling as access to electricity expands and incomes rise. Urban outdoor pollution is likely to increase, though, with the expansion of coal-fired power stations and increasing motor vehicle use.

The components of ambient urban air pollution include sulphur-dioxide (SO_2), oxides of nitrogen (NO_x), ozone (O_3), particulate matter with a diameter of less than 10 microns (PM_{10}), and particulate matter with a diameter of less than 2.5 microns ($PM_{2.5}$). Due to difficulties in disentangling the respective health effects of each of these pollutants, it is common to use PM_{10} as a summary measure of air pollution. PM_{10} is a complex mixture of suspended small-diameter particulates; they include toxic organic compounds, and when inhaled, lodge in the lungs and respiratory tract.

In 2012, the annual mean measure of PM_{10} in Johannesburg was 98 µg/m^3 – almost five times the 2005 WHO-recommended guideline of 20 µg/m^3.[27]

CONCLUSION

Difficulties in conducting burden-of-disease studies and differences in methodology across studies make it hard to pinpoint the precise magnitude of any one risk factor's contribution to the burden of disease. Nevertheless, published studies are generally consistent in what they identify as the leading factors. In both of the major studies considered in this chapter, lifestyle appears to play a significant role in causing ill health, with tobacco, alcohol, high body mass index and dietary risks ranking high among the risk factors.

The risk factors highlighted above represent the major potentially modifiable determinants of ill health in South Africa, and as such, represent targets for fiscal intervention. The risk factors associated with consumption and overconsumption of harmful products lend themselves to fiscal intervention by means of excise taxation; similarly, risk factors associated with underconsumption, including low fruit and vegetable intake, are potentially modifiable through subsidies.

A set of fiscal interventions to target the risk factors identified here will be discussed in the chapters to follow.

CHAPTER 3

THE FISCAL LANDSCAPE: AN OVERVIEW OF TAX AND SUBSIDY INSTRUMENTS IN POLICY

INTRODUCTION

In 1994 the democratically elected government of South Africa inherited a large deficit, low revenue and what many thought would be a national debt crisis. This was turned around through careful spending and systematic efforts to improve and expand revenue collection by means of the newly established South African Revenue Service (SARS). Consequently, South Africa's public finance policy has brought about macroeconomic stability, albeit with high unemployment rates, and is well regarded.

However, the government currently faces the need for increased revenue: a decline in corporate tax revenue, induced by the global financial crisis, has left it with a persistent deficit and an accumulating stock of debt. In spite of this deficit, the government has committed itself to significant new and increasing expenditure, which includes large-scale infrastructure investment and the implementation of the National Health Insurance (NHI).

Using fiscal instruments to achieve positive health outcomes is not a new strategy. However, the potential for using taxes and subsidies as public health instruments depends on the existing equity, efficiency, efficacy and needs of South Africa's public finances. Furthermore, careful consideration should be given to the complex system of taxes and subsidies to which any new fiscal intervention would be added.

This chapter thus presents an overview of South Africa's national fiscus as a backdrop against which to examine the health-motivated fiscal interventions described in other chapters.

FISCAL POLICY IN SOUTH AFRICA

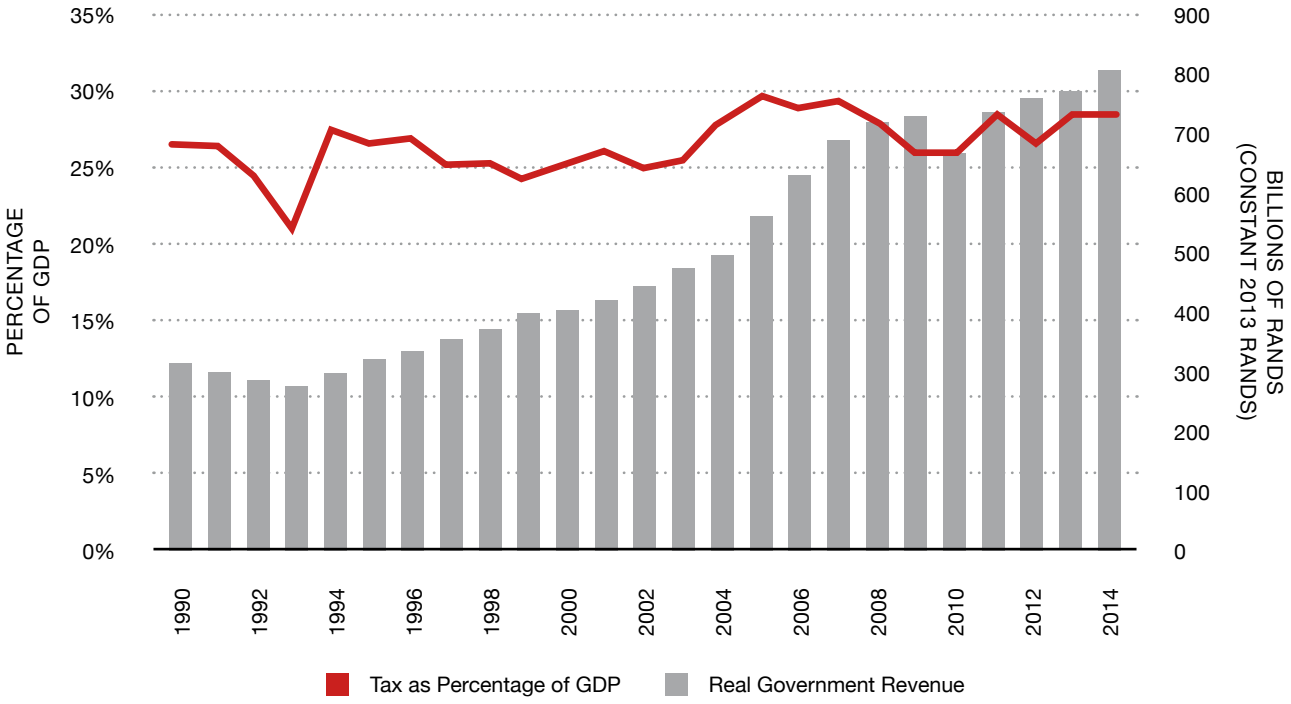
OVERVIEW

Tax revenue has grown remarkably in South Africa since the early 1990s. Between the 1990 and 1993 fiscal years, real government revenue declined as severe economic conditions and poor collection efficiencies constrained the government's ability to raise revenue (see Figure 2). However, from 1993 to 2004 government revenue increased steadily in real terms as economic conditions stabilised and improvements in tax collection efficiencies were made. From 2004 to 2008 revenue rose

more rapidly as economic conditions improved; however, since 2008 revenue increases have moderated as economic conditions became more volatile.

While tax revenue has grown, so has the total economy, entailing a greater need for government services as well as greater scope for revenue collection to finance them. Measuring the scope of revenue over time is done with revenue as a percentage of GDP. Revenue as a percentage of GDP sank to a low of 21.7% in 1993 but recovered to 27% in the following year. It declined slightly over the following few years, reaching a low of 24.4% in 1999, increasing slightly to 25.6% in 2003, and rising sharply to 28.8% in 2005. Since then, government revenue has remained range-bound between 25.9% and 28.0%.

FIGURE 2:
GOVERNMENT REVENUE IN SOUTH AFRICA



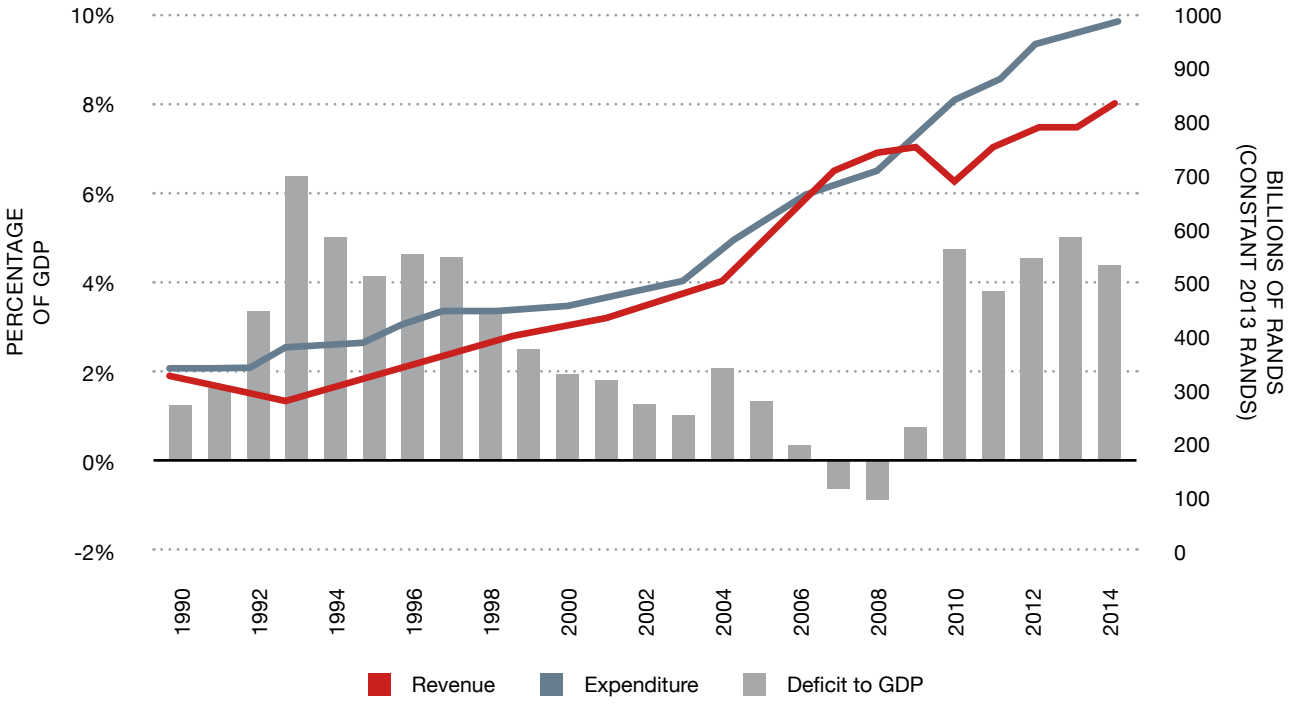
Source: South African Reserve Bank Quarterly Bulletin

Government revenue is used to finance the provision of public goods and services, infrastructure spending, security services and social transfers. Revenue is a constraint on expenditure, but governments are in a unique position that allows them to run systematic deficits. These annual deficits are usually measured against the size of the total economy (e.g. as a percentage of GDP). Figure 3 shows both government revenue and expenditure in real terms since 1990 and the significant real growth in both metrics. However, the two have not grown at the same pace, and, as a result, the deficit has varied over time.

In the early 1990s, the deficit as a percentage of GDP grew, peaking at 6.5% in 1993. Improved revenue collection and disciplined spending growth in subsequent years resulted in the deficit shrinking consistently, and in 2007 and 2008 a surplus was recorded due to significant growth in revenues in those years. Nevertheless, as already described, a deterioration in revenue collection from 2009 onwards has resulted in a sharp increase in the deficit in recent years.

FIGURE 3:

GOVERNMENT REVENUE, EXPENDITURE AND FISCAL DEFICIT IN SOUTH AFRICA



Source: South African Reserve Bank Quarterly Bulletin

As part of the annual budgeting process, the National Treasury makes projections of both expenditure and revenue over the next four years. These projections are reported to Parliament through the Medium Term Expenditure Framework (MTEF) for a four-year period.

Table 2 shows these projections from the most recent budget. The projections indicate that the Treasury is cognisant of the fiscal challenges South Africa faces and intends to reduce the deficit over several years through both increased revenues and fiscal discipline. Given that these projections are made in nominal terms, the future budget balance will be even lower once inflation is taken into account.

TABLE 2:

MEDIUM TERM EXPENDITURE FRAMEWORK PROJECTIONS

FISCAL YEARS **R Billions (nominal)**	**2011/12**	**2012/13**	**2013/14**	**2014/15***	**2015/16***	**2016/17***	**2017/18***
Revenue	842	908	1012	1093	1199	1323	1434
Expenditure	953	1045	1147	1247	1344	1437	1553
Balance	-110	-136	-134	-153	-144	-114	-118
Revenue growth		7.9%	11.4%	8.0%	9.7%	10.3%	8.4%
Expenditure growth		9.7%	9.8%	8.7%	7.8%	6.9%	8.1%

** indicates projection*
Source: National Treasury

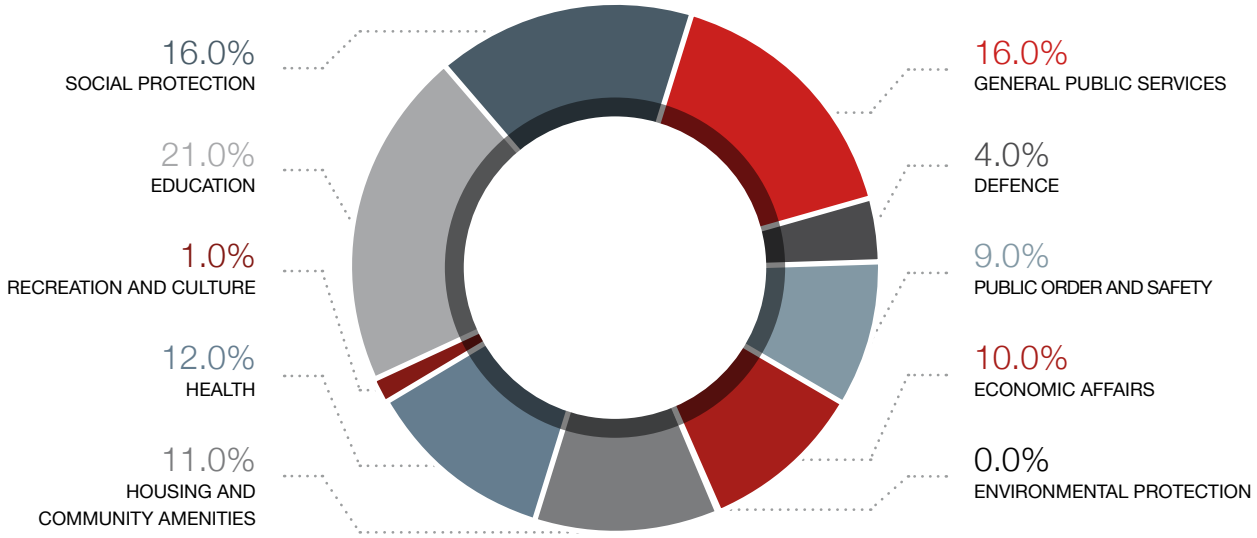
SOURCES OF EXPENDITURE

The composition of expenditure is a critical measure of the government's allocation of resources to service the needs of the population. The largest functional component of government spend is education, at approximately 20%, followed by social security and health. The government has spent about 12% of its non-interest spending on health at the national and provincial level. The MTEF estimates suggest this will be the case for the next few years.

The implementation of the NHI, presently scheduled for nationwide roll-out by 2025, is going to create significant increased demand for resources. Should the resources become available, the public health sector's share of expenditure is likely to rise.

FIGURE 4:

2015/16 CONSOLIDATED EXPENDITURE BY FUNCTIONAL CLASSIFICATION



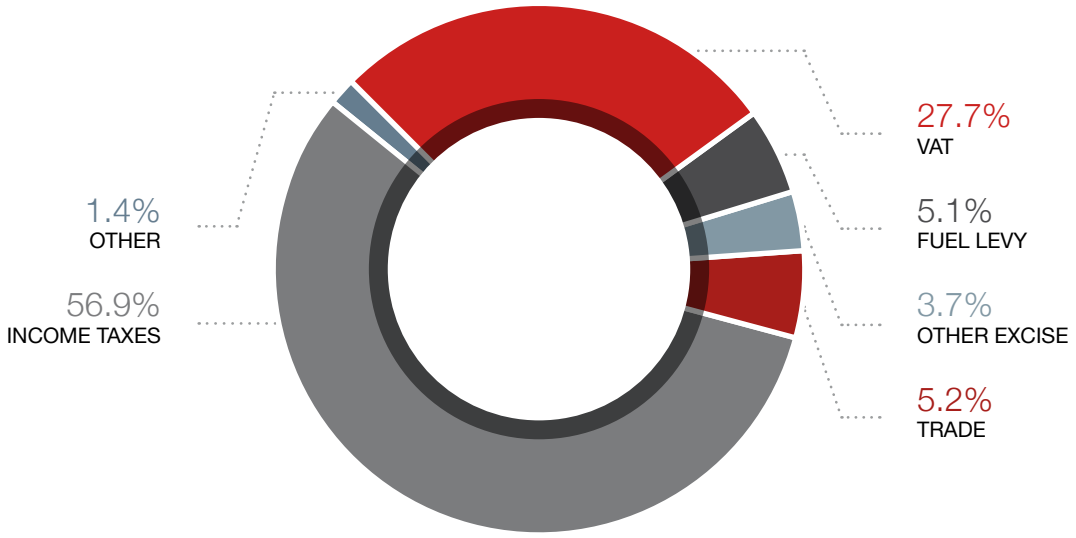
Source: National Treasury, National Budget Review

SOURCES OF REVENUE

The source of South African government revenue has remained fairly constant for some time. A notable challenge in the South African environment is the persistent high level of income inequality and relatively small proportion of people active in the labour force. This means that the personal income tax base is particularly narrow, and concerns about tax regressivity have limited the government's ability to broaden the tax base. Figure 5 shows the breakdown of government revenue sources in the most recent completed fiscal year (2013).

FIGURE 5:

BREAKDOWN OF GOVERNMENT REVENUE IN SOUTH AFRICA, 2014



Source: South African Reserve Bank Quarterly Bulletin

The majority of revenue in South Africa is in the form of income taxes. These include taxes on individuals, on profits of businesses, and on interest and dividends. This sector has the narrowest tax base with the smallest number of taxpayers. Indirect taxes, including value-added tax (VAT), excise taxes and levies, also form a significant portion of government revenue, a portion resourced by a much broader tax base; however, in this area there are important concerns about equity issues. Finally, taxes on trade form a very small part of the revenue pie.

Indirect taxes and taxes on trade allow policy-makers the opportunity to influence behaviour. For example, increasing the excise tax or import tariff on a specific product is likely to result in increased prices of that product, thereby reducing consumption. The following section considers trends in excise taxes, value-added tax (VAT) and import tariffs in more detail.

TAX INSTRUMENTS

EXCISE TAXES

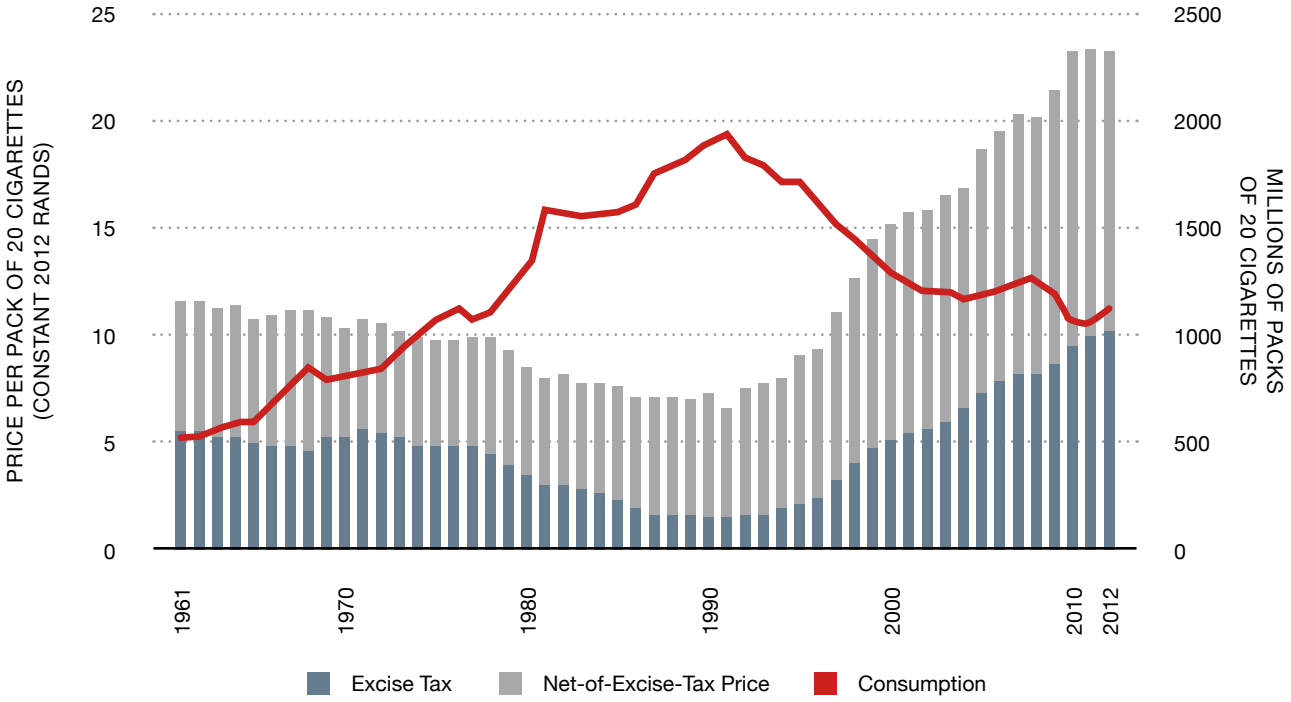
Excise taxes are taxes levied on individual products either because such products are regarded as luxuries or, more importantly, because the consumption of those products results in an externality[i] on society. The most common excise taxes in South Africa are those on tobacco and alcohol. Other examples are those on plastic bags and light bulbs, although South Africa has also applied excise taxes to perfumes, cosmetics, electronic equipment, firearms, chemical products and carbon (presently only through taxes on electricity and motor vehicles). An important consideration regarding excise taxes is that they are levied on consumption within the country and do not distinguish between imported and domestically produced goods.

i An externality is a cost of consumption not borne by the individual consuming the product. For example, tobacco smoking is thought to create an externality because smoking results in second-hand smoke which is inhaled by nearby non-smokers.

Excise taxes on tobacco are levied as a uniform specific tax; however, rates are adjusted on an annual basis as an ad valorem[ii] rate based on the retail price of the most popular brand. The system has been in place since the early 1990s, but before this the specific excise taxes were allowed to decline in real terms as inflation eroded their value. It led to prices declining from 1961 until 1991 (see Figure 6), and coincided with significant increases in consumption of cigarettes. In 1992 taxes began to rise, given that the government was under significant fiscal pressure and also adopting a new focus on using excise taxes as a tool to reduce consumption and thereby improve health. The increases in excise taxes since 1991 resulted in a significant rise in prices, which in turn led to a notable decline in tobacco consumption.

FIGURE 6:

CIGARETTE EXCISE TAXES, PRICES AND CONSUMPTION IN SOUTH AFRICA, 1961-2012



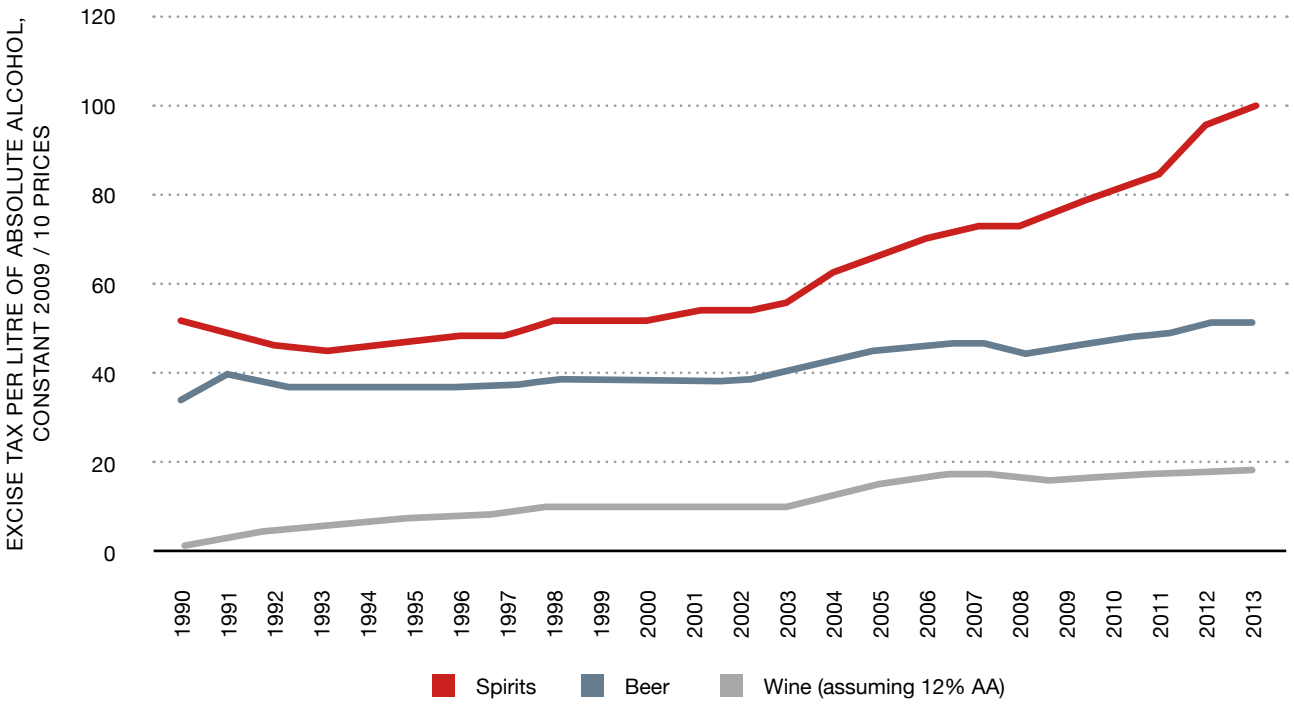
Tobacco tax policy thus has been important in achieving two outcomes: improved health outcomes through reduced consumption and smoking prevalence, and increased government revenue. Given that tobacco smoking is the third leading cause of death and fourth leading course of disability-adjusted life years lost, significant reductions in tobacco use have a high impact on health.

In a similar vein, alcohol use is a major cause of concern to public health in South Africa. It is the fourth leading cause of death and the third largest contributor to disability-adjusted life years lost. Excise taxes have also been used to reduce alcohol consumption and increase revenues in South Africa.

ii As a percentage of price.

Excise taxes on alcohol are complicated, though, involving different tax structures for beer, spirits and wine. For beer and spirits there is a uniform specific tax on each litre of absolute alcohol, with duties adjusted on an annual basis so as to maintain a constant tax burden as a percentage of an approximation of retail prices. For wine, a uniform specific tax is applied per litre of wine, rather than per litre of absolute alcohol, with rates also adjusted on an annual basis to ensure a constant tax burden. Figure 7 shows the inflation-adjusted excise taxes on beer, spirits and wine in South Africa.

FIGURE 7:
REAL EXCISE TAXES ON ALCOHOL, 1990-2013



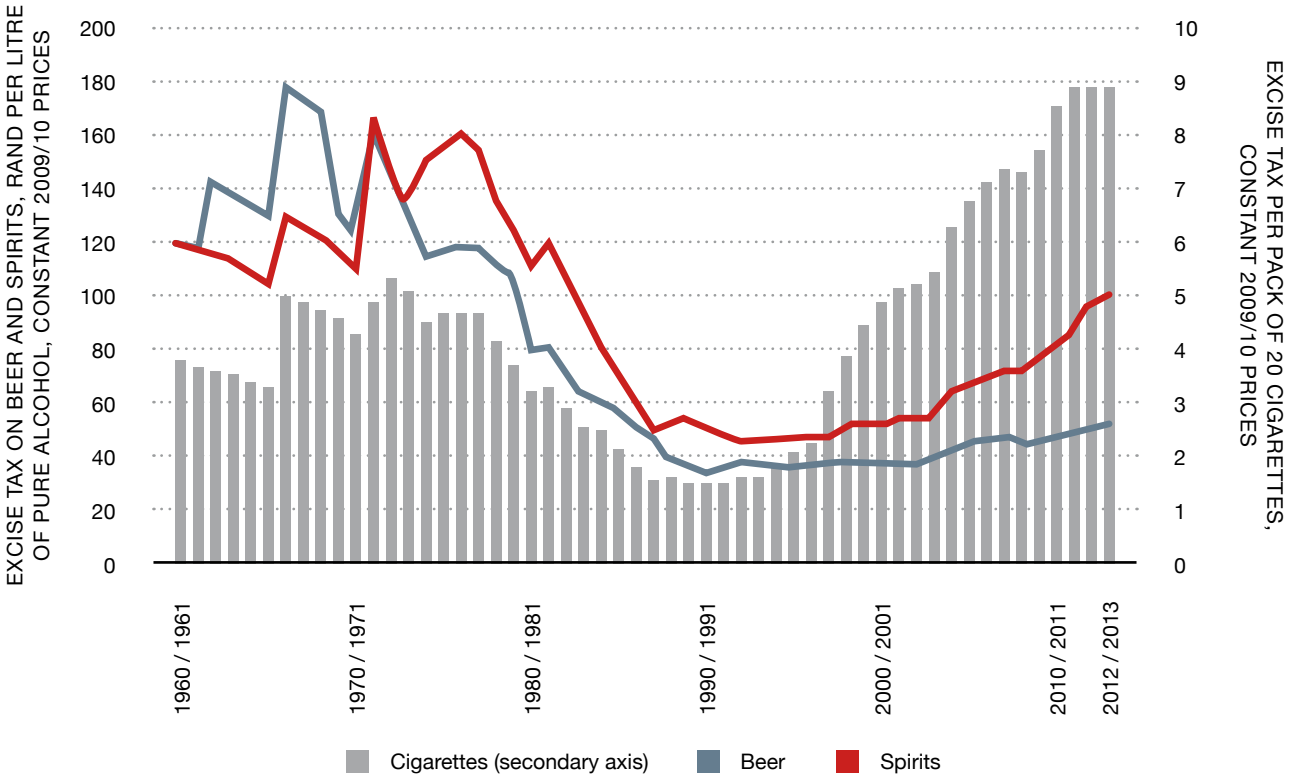
Source: StatsSA, National Treasury

Prior to 1990 wine was not taxed, and while all categories have seen real tax increases, wine is still significantly less taxed than beer and spirits. This is due to concerns about the greater economic value added in its supply chain. While it is apparent from Figure 7 that alcohol taxes have increased in the last 23 years, the figure does not show the true historical context. Figure 8 thus presents the inflation-adjusted taxes on beer and spirits (wine is excluded since it was not taxed prior to 1990) since the 1960s, alongside those on tobacco. Although all excise taxes declined from the 1960s to the early 1990s, the increase in tobacco taxes has far exceeded the increase in alcohol taxes. Cigarette taxes have exceeded the relative maximum in 1972/3, whereas alcohol taxes are well below the relative maximum of 1966/7 for beer and of 1971/2 for spirits.

Thus, while tobacco taxes may be considered high in a historical context, the same is not true for alcohol taxes. This indicates that there is significant scope to use alcohol taxes to reduce alcohol consumption and raise revenue.

FIGURE 8:

REAL EXCISE TAXES ON ALCOHOL AND CIGARETTES, 1960-2013



Source: StatsSA, National Treasury

VALUE-ADDED TAX

The value-added tax (VAT) is a sales tax applied to most goods and services in South Africa. It is levied only on goods and services sold and consumed in South Africa; goods destined for exports are levied with VAT which may be reimbursed when exported to a foreign national. In 1991 VAT replaced the General Sales Tax (GST) that had been introduced in 1978. Not all goods and services in South Africa include VAT: notable exclusions are second-hand goods and liquid fuels. Second-hand goods are excluded on the grounds that VAT was levied on the first sale and including it on the next would result in a double taxation. In theory, however, VAT could be levied if value is added to the second-hand product and it is sold for a higher price than the original item. Additionally, some goods and services are either zero-rated or VAT exempt. VAT-exempt goods and services are entirely exempt, meaning there is no input VAT and no output VAT: in other words, tax does not apply at all. Zero rates are subject to input VAT, but output VAT is levied at 0%. Effectively, zero rates result simply in a lower VAT burden on the product since there may be some VAT earlier in the supply chain. The following products are zero-rated:

- exports;
- 19 basic food items, including brown bread; brown wheaten meal; cultured milk; dried mealies; dried beans; dairy powder blend; eggs; edible legumes and pulses of leguminous plants; fruit; mealie rice; lentils; maize meal; milk; milk powder; pilchards and sardines in tins; rice; samp; vegetables; vegetable oil;
- illuminating paraffin;
- petrol and diesel (which are subject to an alternative fuel levy);
- international transport services (e.g. international air travel);

- farming inputs;
- sales of going concerns; and
- certain government grants.

The following products are VAT-exempt:

- non-fee related financial services (i.e. interest);
- educational services provided by an approved educational institution;
- residential rental accommodation; and
- public road and rail transport.

INCOME TAXES

Personal income tax (PIT) and corporate income tax (CIT) are the primary sources of government revenue, together contributing more than 60% of total revenue. Innovations like the adoption of pay-as-you-earn have seen improvements in compliance with, and growth in, collections. However, buoyancy of income taxes is an ongoing concern, with corporate tax having fallen during the global financial crisis and not recovering to pre-crisis trends.

Various deductions and tax incentives exist and are a potential tool for incentivising health-related behaviours and investments. For example, a PIT deduction exists for individuals who are covered by private health insurance. In the case of PIT, though, the potential for these tools to influence population health in a significant way is constrained by the limited PIT base. In the 2013/14 fiscal year only approximately five million PIT returns were filed. From a distributional perspective, the use of PIT exemptions and deductions would disproportionately benefit the employed and wealthy. CIT deductions, however, are a viable tool that could be used to incentivise firms to invest in equipment or adopt strategies that address occupational health and safety and the health of their employees more generally.

FUEL LEVY

Petrol, diesel and paraffin are not subject to VAT; more precisely, they are are zero-rated. This is because the prices of these goods are subject to significant fluctuations from month to month. Using an ad valorem VAT would not only result in amplified fluctuations in price but possibly lead to unstable and unpredictable revenue flows.

Replacing the VAT is a specific tax; however, this specific tax is not called an excise tax but a levy. It is termed a levy since it does not form part of the common excise tax revenue pool in the Southern African Customs Union. Petrol has a fuel levy, along with a levy earmarked for third-party insurance called the Road Accident Fund.

TARIFFS ON TRADE

Imports of goods from foreign countries into South Africa are regulated by a combination of tariffs and quotas. Tariffs are taxes that apply to imported goods, generally at an ad valorem rate. Furthermore, they are applied to different goods at different rates, and countries or regions are provided with a preferential rate, one which is sometimes tariff-free.

Since the early 1990s, South Africa has embarked on a programme of trade liberalisation, with tariffs thus declining. It has trade agreements with several regions. As a part of the Southern African Customs Union (SACU), South Africa and its immediate neighbours (Botswana, Lesotho, Namibia and Swaziland) allow for the free movement of goods across their borders, with zero tariffs and a common external tariff. South Africa also has a free trade agreement with the European Union.

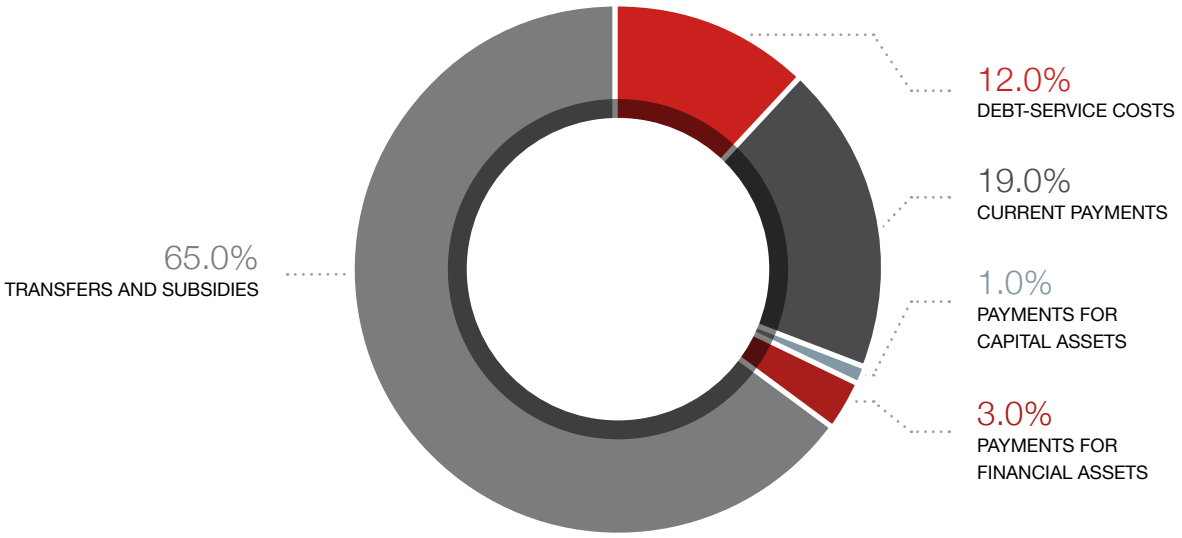
SUBSIDY STRUCTURES AND SYSTEMS IN SOUTH AFRICA

OVERVIEW AND SCALE

Outside of taxation and revenue collection efforts, government spending and distribution of revenues is a key dimension of fiscal policy. In this section, we examine in particular the existing use of subsidies in South Africa. As Figure 9 shows, a significant share of government spending is in the form of transfers and subsidies.

FIGURE 9:

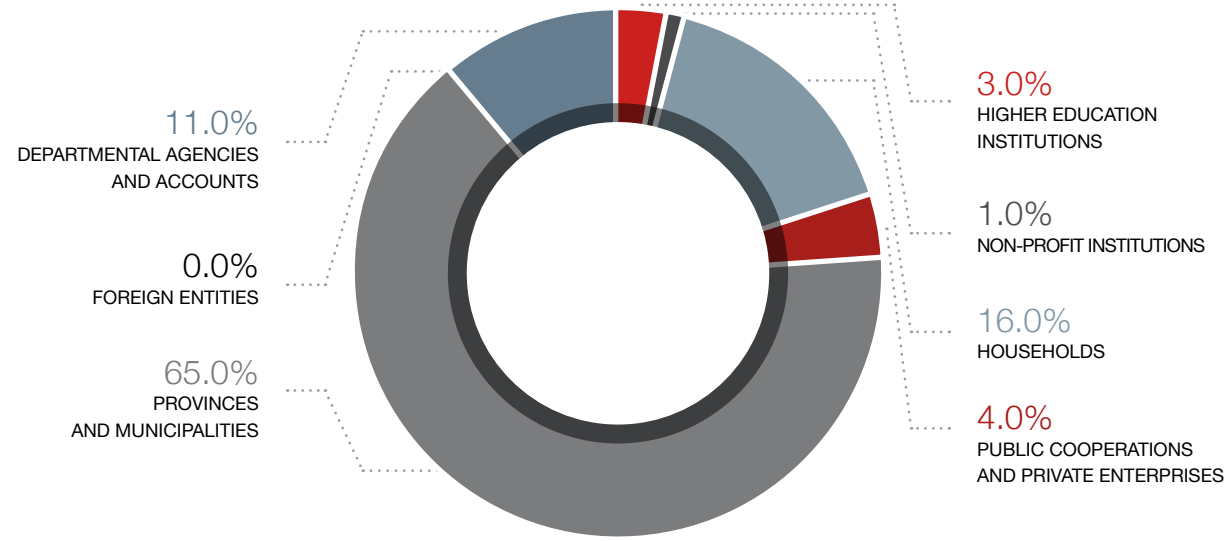
2015/16 CONSOLIDATED EXPENDITURE BY ECONOMIC CLASSIFICATION



Source: National Treasury, National Expenditure Report

FIGURE 10:

2015/16 TRANSFER AND SUBSIDY BREAKDOWN BY DESTINATION



Source: National Treasury, National Expenditure Report

While the precise scope of subsidy use is difficult to establish, Figure 10 demonstrates transfer and subsidy expenditure broken down by destination. The following section addresses various representative subsidies that have been used as policy levers in recent years. The subsidies are divided into three broad categories, and while these are not exhaustive or mutually exclusive, they should suffice for the purpose of this discussion.

ECONOMIC STABILITY AND TRADE

Two of the main purposes of subsidies are to maintain affordable prices for certain essential goods and to support producers attempting to trade in global markets. For example, in the case of the agricultural subsidies, the government aims to keep production costs low so as to benefit local consumers and facilitate international exportation. The primary goal of many of these subsidies – namely to encourage and enable producers to participate in foreign markets – is explicit and openly advertised by the government. Agencies closely linked to international affairs, such as Brand South Africa, notify businesses of some of the policies that act to subsidise export costs. Such programmes include:

- Export Marketing and Investment Assistance (EMIA);
- Capital Projects Feasibility Programme;
- Sector Specific Assistance Scheme; and
- the Industrial Development Corporation.

PROVISION OF SERVICES

Subsidies are also used when the government seeks to satisfy the rights and needs of its citizens through free or reduced cost access to particular services. For example, in order to satisfy the right to housing and shelter contained in the United Nations Convention on the Rights of the Child (UNCRC) (article 27) and the South African Constitution (sections 26 and 28), the Department of Human Settlement provides a range of subsidies to improve access to affordable and adequate housing. Among them are the following:

- individual housing subsidy;
- rural housing subsidy: informal land rights;
- housing subsidy for the disabled;
- older persons housing subsidy; and
- consolidation subsidy.

In many cases, subsidies are employed simply when full coverage of a service is excessively expensive. The Department of Social Development (DSD), for instance, has made its commitment clear to early childhood development (ECD). Nevertheless, ECD centres and non-centre-based ECD programmes are costly, and thus the DSD has elected to provide a per-learner subsidy to privately managed ECD centres that take on vulnerable and disadvantaged children (as defined by the DSD) at reduced costs. In this way, the DSD makes these services more accessible for children who could not otherwise afford them.

CORRECTING MARKET FAILURES

The final class of subsidies discussed here are those with the central goal of directing market behavior to account for positive externalities. Examples include subsidies on healthy foods, such as the Healthy Food benefit offered by the insurance provider Discovery through its Vitality programme. This programme is designed to encourage better food choices and promote a good diet that will eventually contribute to the overall health and well-being of Discovery members. Such a subsidy is clearly intended to promote the substitution of highly nutritional foods for unhealthy alternatives. Similar market-driving subsidies are provided by the South African government for clean energy alternatives, biofuels and various research projects, which constitute some of the many investments commonly understood to have positive externalities not internalised in their costs.

Even the strategies highlighted in this report for achieving positive health outcomes through targeted fiscal interventions are already utilised in certain policies. For instance, the availability of fully subsidised condoms at various locations greatly increases the acquisition of condoms in the market. The intervention reflects the commitment of policy-makers to protect individuals from unwanted pregnancy and STIs and to address the HIV epidemic – a public health concern that may not necessarily be internalised by the individual consumer. This is a clear example of how subsidies can and have been used in the South African context to improve public health.

CONCLUSION

Expansions in public service provision post-1994 have been possible due to the careful revenue-raising and judicious spending for which the National Treasury has gained a solid reputation.

Going forward, the government has committed itself to addressing South Africa's significant health inequities through the introduction of the NHI, which will require further revenue-raising, particularly given the recent emergence of a persistent deficit.

This chapter has highlighted trends and existing tax and subsidy tools that are at hand in order for the government to achieve these health goals. In particular, the discussion outlined several uses for subsidies and ways in which they could incentivise certain kinds of behaviour; likewise, using tax tools to *disincentivise* particular behaviors and reduce the prevalence of risk factors could yield a dual reward: on the one hand, by reducing the burden on the public health sector, along with the associated state expenditure, and, on the other, by raising revenue, thereby allowing expansion and restructuring of health care in South Africa.

CHAPTER 4

FISCAL POLICY INTERVENTIONS FOR HEALTH IN SOUTH AFRICA

INTRODUCTION

This chapter outlines a set of fiscal interventions for consideration as tools to target South Africa's health burden.

SOME THEORY

Conventional economic theory posits that under conditions of perfect competition, taxation leads to distorted prices, production and consumption, and associated welfare losses. However, under certain circumstances and in the presence of market failures, taxation can, in fact, be welfare-enhancing. If consumption or use of particular goods affects other individuals negatively, and if these external costs – referred to as an externality – are not factored into one's own cost-benefit decision, individuals will over-consume.

So-called Pigouvian taxation of goods with negative externalities is an effort to include the cost of the externality in the price, and, as such, reduce consumption to socially optimal levels. In the following section we propose a number of forms of Pigouvian taxation. Beyond cases of externalities, there are other instances where the price of goods or services does not reflect the true costs for individuals who consume them; consequently, individuals may not be making optimal decisions about consumption.

For example, although antenatal care is provided free in public health facilities, pregnant mothers are required to travel to facilities and incur transportation costs to access those services. Thus the nominal price is zero, but in fact the experienced price includes the transportation costs that were incurred. An alternative example is that when individuals are unaware of the negative effects of consumption on their health, the full cost they experience is not factored into their decision to consume the product. Through either taxes or subsidies, fiscal policies can correct these prices by encouraging or discouraging consumption.

The emerging field of behavioural economics has shed further light on instances when taxation can be welfare-enhancing. A growing body of evidence shows that individuals exhibit biases that lead to suboptimal decision-making. In particular, individuals are observed displaying time-inconsistent preferences – their valuation of consumption decreases at a varying rate over time. The result of such preferences is that even

if they possess full information, individuals tend to overvalue consumption in the present and undervalue the costs of their consumption if these costs are only incurred in the future.

An illustration of this is the consumption of sugary beverages. Sugary beverages are perceived as tasting good at the moment of consumption, but because the onset of weight gain and its co-morbidities is experienced only in the future, individuals will undervalue that health cost and as such over-consume in the present. Taxation can be used to correct this undervaluing of the cost and reduce consumption toward optimal levels.

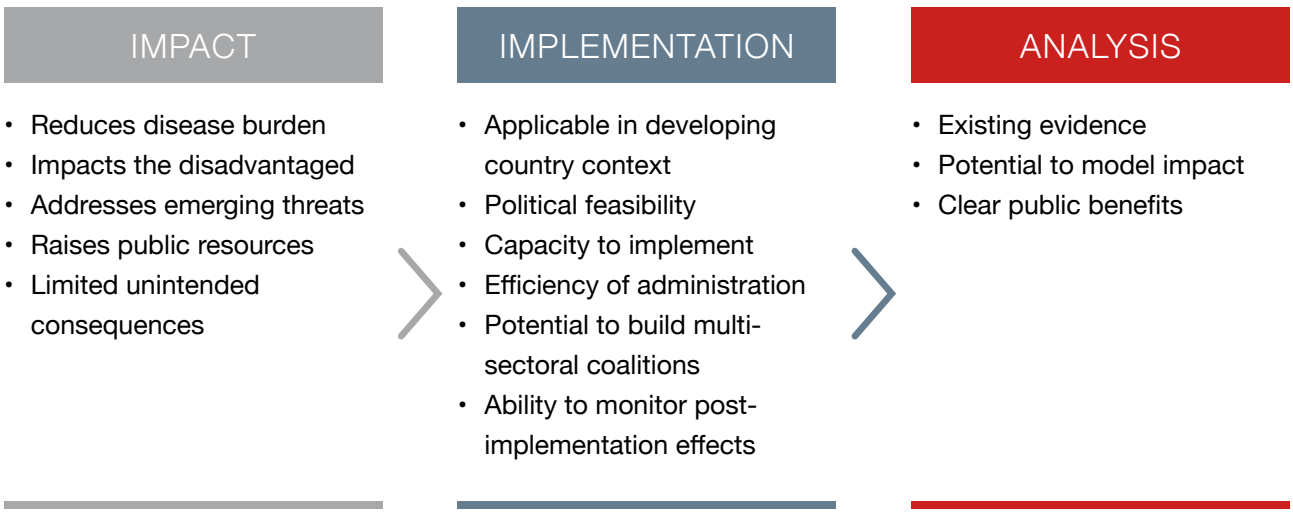
When evaluating fiscal policy proposals, other important considerations include the incidence of the proposed policy. Incidence refers to the individual or group who bears the burden or enjoys the benefit of a particular fiscal intervention. This is often discussed in terms of progressivity or regressivity. A regressive policy is one where the burden is borne by individuals with a lower income, while a progressive policy is one where the benefits are borne by the poor.

Furthermore, it is important to recognise that nominal incidence does not equate to realised incidence. For example, if a government levies a tax on producers of a good, producers will raise their prices, causing the burden of the tax to fall in part on consumers. Thus, a broad approach that considers the responses of any affected firms or individuals needs to be taken in assessing the effects of any fiscal policy intervention.

CRITERIA FOR EVALUATING SUITABILITY OF FISCAL INTERVENTIONS

With the theory of fiscal intervention understood, we must consider the translation of the conceptualisation of fiscal interventions to the real world, taking careful consideration of the particular context and challenges that South Africa faces. Based on a deliberative process undertaken with the Inquiry on Fiscal Policies for Health advisory panel, a set of criteria was developed against which health-targeting fiscal interventions' suitability could be interrogated. First, the intervention must have demonstrable potential to impact health, should address health disparities, and in the context of tax interventions may raise revenue that could further be directed to improve health outcomes. Second, the feasibility of the implementation of the intervention must be considered. Lastly, the feasibility of suitable ex-ante means of analysis must be considred.

FIGURE 11:
CRITERA FOR EVALUATING FISCAL INTERVENTIONS



Keeping in mind the theoretical considerations as well as the criteria for evaluating policy developed at the first meeting of the expert panel, we present the following fiscal policy interventions that have the potential to improve health.

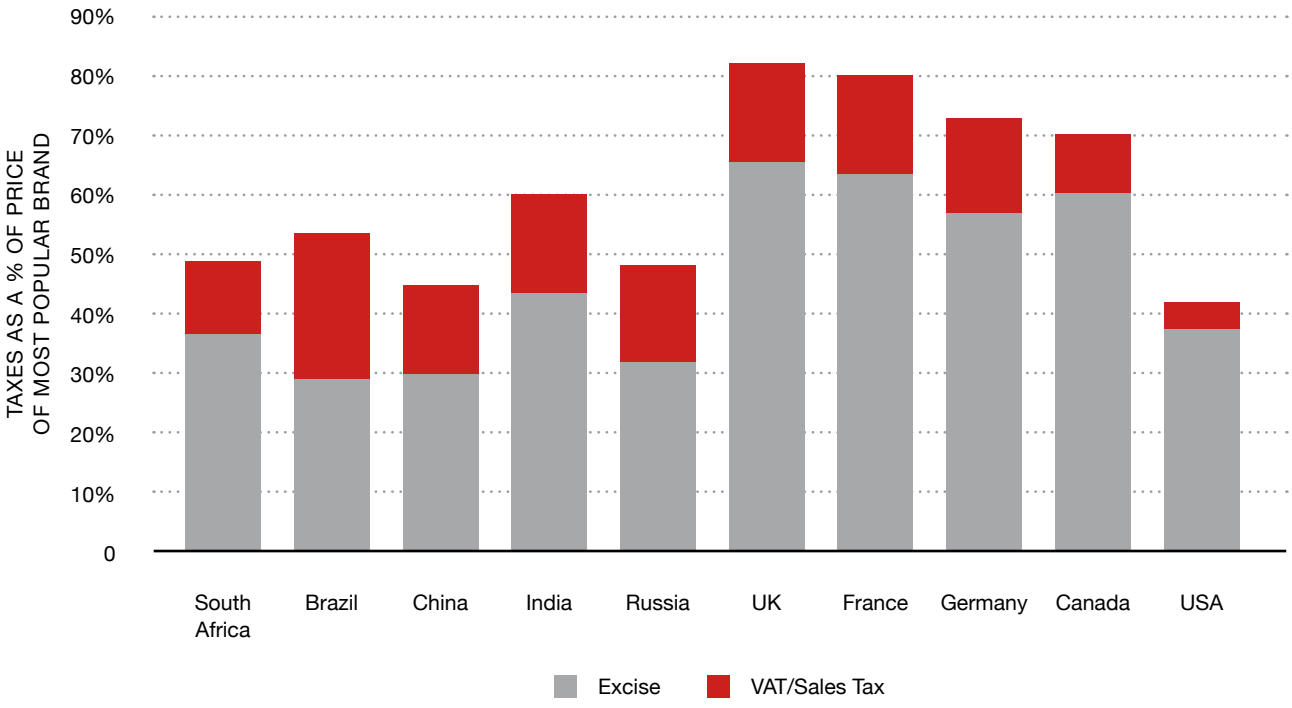
TAX INTERVENTIONS

INCREASED EXCISE TAXATION OF TOBACCO PRODUCTS

Excise taxation of tobacco in South Africa, in conjunction with a broader regulatory effort to reduce smoking, has seen the prevalence of smoking decrease dramatically. The rise in excise levies on tobacco taxes has coincided with a significant drop in consumption.[i] Despite this progress, tobacco smoking was listed as the fifth largest cause of lost years of healthy life in South Africa by the IHME's GBD 2010 study, and the fourth largest by the MRC 2000 National Burden of Disease study. Smoking is associated with increased risk of various cancers and cardiovascular disease.

While the WHO recommends the excise tax, not including sales or VAT, on cigarettes should equate to 70% of the retail price, and the World Bank recommends that all taxes, excise and other, on cigarettes should equate to between 66% and 80% of the retail price, at present in South Africa all taxes on tobacco amount to only 52% of price, and excise taxes alone constitute only 40% of price. Thus, by international standards there is both room and a need for an increase in the taxation of tobacco.

FIGURE 12:
INTERNATIONAL COMPARISON OF TOBACCO EXCISE BURDENS, 2014



Source: WHO

i See the discussion in Chapter 2 of this report.

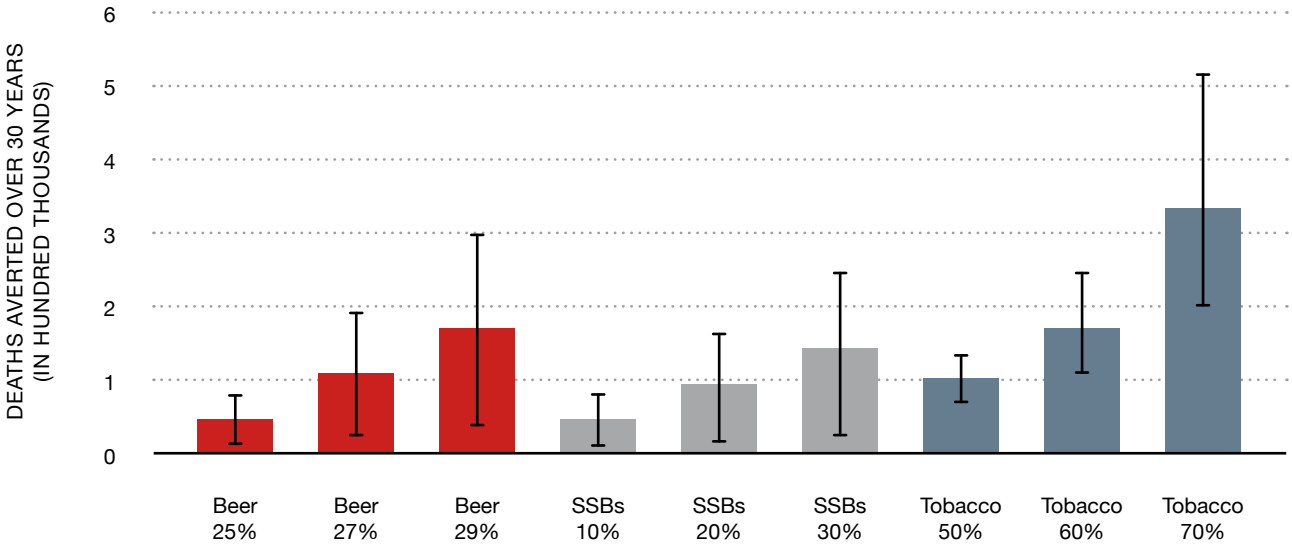
We have undertaken modelling studies as a part of the Inquiry on Fiscal Policies for Health initiative that demonstrate significant further gains from moving South Africa's tobacco excise in line with international standards and recommendations. These are presented in Figure 13.

The loudest cries raised against tobacco excise are often those of vested industry interests. The Tobacco Institute of South Africa (TISA), an industry lobby active in the press, has been shown to alter previous estimates of the illicit trade market size so as to create the impression of growth.[1] The threat of the growth of the illicit trade should thus be treated with caution, and related claims should be evaluated objectively.

Although South Africa is a signatory to the FCTC, it is yet to implement many of the associated tobacco control measures. The implementation of alternative tobacco control measures is desirable in itself; however, the reduction in demand they induce will also ease the pressure on the implementation of excise increases. For example, by reducing demand overall, there will be less demand for illicit cigarettes and as such less leakage from collection efforts. This would aid South Africa in increasing tobacco excise benchmarks in line with the WHO's recommendation of 70% of the retail price of the most popular brand.

FIGURE 13:

PRELIMINARY SIMULATED HEALTH EFFECTS OF EXCISE TAX INTERVENTIONS



Source: Authors' calculations

INCREASED EXCISE TAXATION OF ALCOHOL

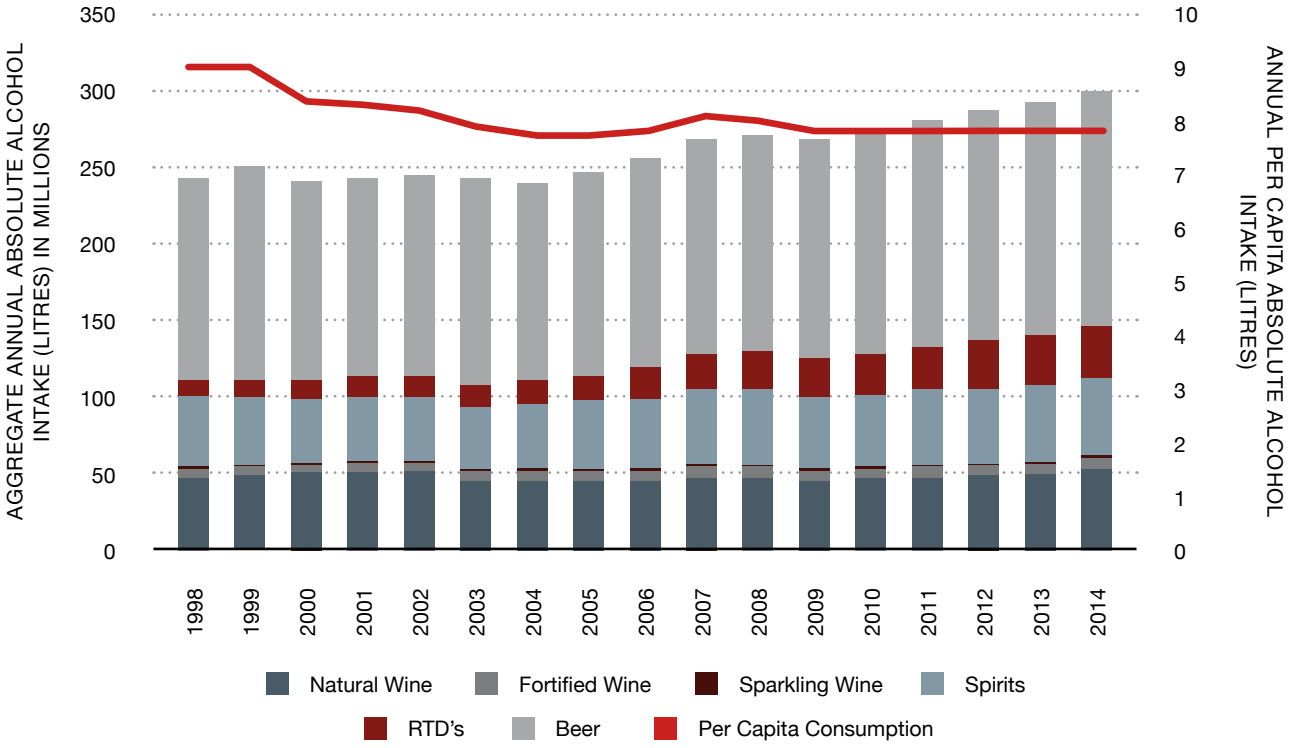
Alcohol consumption remains a leading risk factor in South Africa's disease environment. The 2000 SA MRC CRA found that 7% of DALYs were attributable to alcohol use.[2] The IHME GBD 2010 found 6% of DALYs were attributable to alcohol use, making alcohol consumption the most significant modifiable risk factor.[3] Survey estimates of patterns of consumption suggest a low prevalence of reported consumption, even though aggregate per capita consumption is moderate at 8 litres AA/annum. What this implies is that those who do drink do so heavily.

The implication is significant as there is a positive dose-response relationship between

alcohol consumption and health and other harms. Whereas limited alcohol intake has a protective effect for certain cardiovascular and cerebrovascular diseases, heavy drinking is associated with liver disease, cancers and violence and injury.

FIGURE 14:

ANNUAL ABSOLUTE ALCOHOL CONSUMPTION ACROSS BEVERAGE CATEGORIES AND TOTAL PER CAPITA INTAKE



Source: SAWIS, StatsSA

As a risk factor, alcohol's influence extends across South Africa's quadruple burden of disease. Alcohol consumption is associated with HIV incidence and reduced antiretroviral treatment adherence.[4] High blood alcohol levels are associated with road traffic injury and interpersonal violence.[5] Fetal alcohol syndrome remains a significant source of disability.[6] Despite the harmful effects of alcohol, though, control measures are limited. Excise duties are the one approach adopted nationally to limit alcohol intake and its related harms.

Excise on alcohol products in South Africa is determined by the National Treasury in a similar fashion to the excise on tobacco. Specific duties are set on alcoholic beverages based on benchmarks for total (excise plus VAT) tax burdens. However, there is substantial variation across products in the benchmarks set and per unit absolute alcohol duties. The lowest tax burden benchmark is on wine, at 23% of average retail price, followed by beer at 35% and finally spirits, at 48% of average retail price.[7] Less VAT, these benchmarks imply excise burdens of approximately 11% on wine, 23% on beer and 36% on spirits. In a preliminary modelling analysis, the results of which are presented, we find that the adoption of even moderately higher benchmarks on beer excise results in significant reductions in mortality.

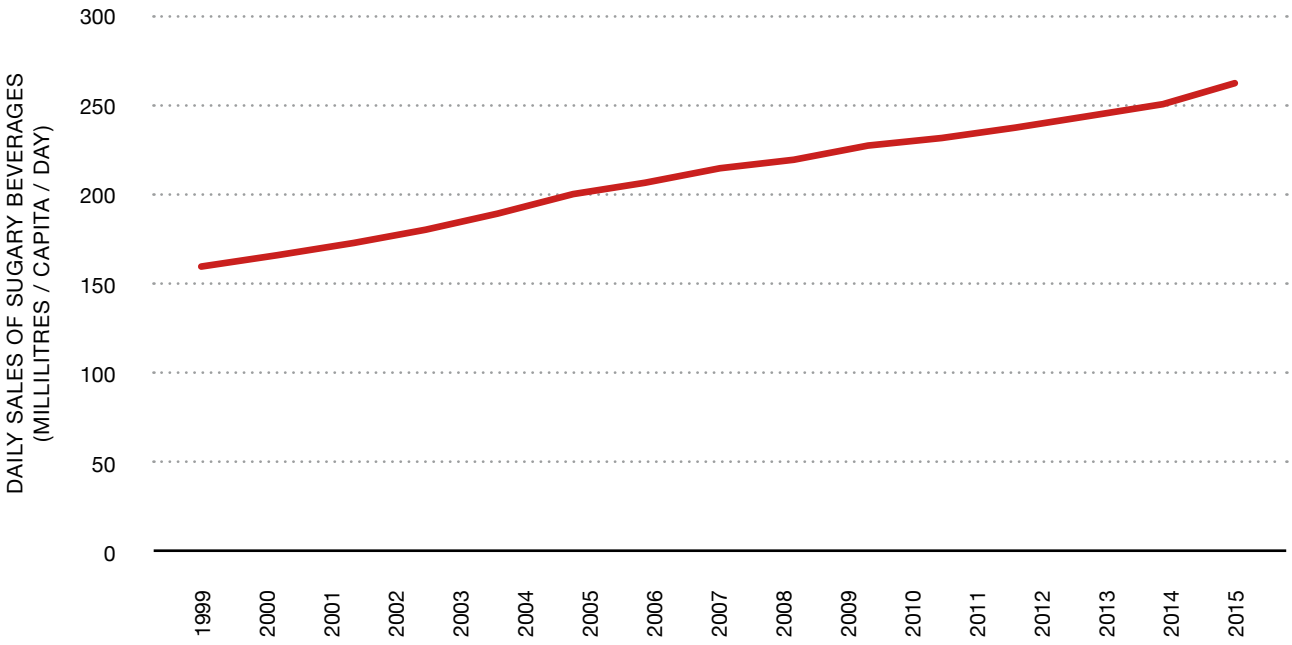
EXCISE TAXATION OF SUGARY DRINKS

In 2012 the prevalence of obesity and overweight in South Africa was estimated to be 39.2% among women and 12.2% among men.[8] Obesity is closely associated with hypertension and non-communicable diseases including diabetes, stroke and cardiovascular disease. Treatment of these obesity-related diseases is costly to an already burdened public health system.

Sugary drinks are non-alcoholic beverages with added sugars. Systematic reviews and meta-analyses of studies of sugary drink consumption have linked it not only to increased obesity but diabetes and other obesity-related diseases.[9] Consuming 1-2 sugary beverage servings/day increases the risk of developing type 2 diabetes by 26%.[10] Similar to other lower-middle-income countries undergoing nutrition transition, South Africa has seen growth in the prevalence of obesity, accompanied by significant growth in consumption of sugary drinks and other ultra-processed foods. Figure 15 plots plots the growth of sugary beverage consumption in South Africa from 2001 to 2015, where daily sales grew from approximately 150ml per capita to over 250 ml per capita.

Excise taxes are a potential fiscal tool to reduce consumption of sugary beverages. Excise taxes are taxes specifically targeted at reducing consumption of particular goods in an economy.[11] In South Africa excise taxes on tobacco and alcohol products have been levied successfully to reduce consumption and the harm associated with their consumption. The South African National Treasury has proposed the adoption of a ZAR0.0229 per gram of sugar tax on sugar-sweetened beverages. In 2014 Mexico levied excise taxes on sugary beverages and junk food. Preliminary findings suggest that prices of sugary drinks rose substantially, consumers reduced their consumption by 6%, and public awareness of obesity increased.

FIGURE 12:
DAILY SALES OF SUGARY BEVERAGES IN SOUTH AFRICA



Source: Euromonitor International

Existing research has examined the potential for a 20% tax on sugary beverages and found there would be significant reductions in the burden of obesity in South Africa.[12] Preliminary modelling undertaken for this project and presented in Figure 13 suggests significant reductions in mortality arising from the imposition of a 20% tax. Alternatively, if no action is taken, the predicted growth of sugary beverage per capita consumption will lead to a worsening of the obesity epidemic.[13]

CARBON TAX

The National Treasury has tabled a proposal for a tax on carbon dioxide-producing fuels. Treasury's stated intent with this proposal is to address the environmental impact of South Africa's production of greenhouse gases.[14] However, levying such a tax could also be associated with significant health benefits.

An IMF study found that if the health costs related to the combustion of fossil fuels were included in the price of such fuels, South Africa would pay a significantly higher price on fuel consumption.[15] A tax on the production of carbon dioxide-producing fuels would internalise the health costs associated with their use, and, as such, reduce their use and the associated health burden.

As noted in Chapter 2, in 2012 the annual mean measure of PM_{10} in Johannesburg was 98 µg/m^3. This figure is almost five times the 2005 WHO-recommended guideline of 20 µg/m^3.[16] Sulphur dioxide affects the respiratory system and is associated with asthma, lung cancer and chronic obstructive pulmonary disease (COPD). Hospital admissions and mortality have been observed to increase on days with greater observed sulphur dioxide.[17]

VAT REDUCTIONS ON PERSONAL HYGIENE PRODUCTS

At present South Africa's VAT system provides for limited exemptions and zero ratings. Nineteen basic foodstuffs and paraffin are zero-rated. The zero ratings have been shown to reduce the regressivity of the VAT.[18] However, hygiene or health products are excluded from the list of zero-rated items.[19] This implies that certain goods and services with preventative health benefits are being taxed. Furthermore, the taxing of products widely viewed as necessities is extremely regressive.

The introduction of zero VAT ratings on a package of hygiene products including soaps, female hygiene products and condoms could stimulate their use and bring about associated health benefits.

Hand-washing with soap is key to the prevention of the transmission of diarrhoeal disease and has been shown to be highly effective in the prevention of infant death.[20] In conjunction with behavioural interventions, reduced taxation, and hence reduced prices of soaps, would promote the widespread adoption of hand-washing practices and enjoyment of its associated health benefits.

In a similar vein, limited access to female hygiene products significantly affects the school attendance of female adolescents in deprived households. Taxes on female hygiene products make it costly for these adolescents to access the products that would ease school attendance during menstruation. Adolescent female school attendance is directly related to the prevalence of age-disparate relationships and other risky sexual behaviors that are significant risk factors for HIV.[21]

Finally, condoms are highly effective barriers to HIV transmission, and yet VAT is still charged on privately marketed condoms. The subsidised government condoms, branded Choice, are stigmatised as being of low quality and on numerous occasions have been subject to recall.

In the past, the National Treasury has considered VAT zero-ratings of so-called merit goods.[22] The arguments against expanded VAT concessions are that they violate the principle of a simplicity in taxation, increase administrative costs, hurt revenue-raising, and set a precedent for expanded lobbying for concessionary treatment of particular products.

Arguments for zero-rating of hygiene products include the high regressivity of taxing such products, their minor contribution to VAT revenue, the inequity of taxing products used only by women, and the health benefits of their use.

TILTING FUEL LEVY ON DIESELS TO REDUCE OCCUPATIONAL EXPOSURE TO POLLUTANTS

A key occupational exposure for mining, construction and heavy industry is the inhalation of diesel exhaust fumes. Byproducts of the combustion of diesel are far more harmful than other liquid fuels. In particular, diesel particulate matter (DPM) contains carcinogens that are known to increase the risk of heart and respiratory disease, while nitrogen oxides (NO_x), which are linked to respiratory disease, are released in excess in diesel combustion compared to the combustion of other fuels.

South Africa has a fuel levy that does not differentiate fuels by their grades or byproducts. As such, the relative health burden incurred by the use of fuels that result in more inhalation of harmful substances is not priced into industry's choice of fuels for heavy machinery. As such, one could tilt the general fuel levy on diesel fuels so that the levy is higher on diesel fuels, which produce relatively more PM during combustion. Such an intervention is a Pigouvian form of taxation in that it engages with the environmental externality of the production of harmful pollutants, doing so by targeting fuels used in industry.

SUBSIDY INTERVENTIONS

TRANSPORTATION SUBSIDIES FOR PREGNANT WOMEN

South Africa has high infant and maternal mortality. Although progress has been made in improving maternal and child health, South Africa has not reached its Millennium Development Goal commitments for these indicators. A key to improving maternal and child health is early and regular antenatal care visits. These allow for the early detection and treatment of pregnancy complications, including undetected HIV infections, gestational diabetes and iron deficiency anemia.

National Department of Health guidelines recommend that antenatal care begins before 14 weeks, yet 2013/2014 data show that only 50% of women have their first visit by 20 weeks.[23] A significant barrier to accessing antenatal care is the cost of travelling to health facilities.

Transportation costs have been recognised by the National Department of Health as a barrier to health care; the 2012 Health Facility Audit states, "For the indigent and rural communities, transport costs significantly affect out-of-pocket expenses on accessing healthcare."[24] Likewise, interviewees of a 2014 Amnesty International report on maternal health single out transportation costs as a barrier to early antenatal care access.[25] For dependent pregnant women, requesting money to pay for transportation could cause their pregnancy status to be divulged unnecessarily or prematurely.

By compensating pregnant women for their transportation costs, the burden of accessing antenatal care would be lowered significantly. This could improve the stage at which antenatal care is initiated and increase the chance of early detection and treatment of complications, thereby reducing maternal and infant mortality.

INCENTIVES FOR CHRONIC DISEASE TREATMENT ADHERENCE

Conditional incentives are increasingly being viewed as a means of achieving desirable societal goals. The chronic diseases contributing to South Africa's disease burden require long-term therapeutic strategies. Adherence to medications prevents disease progression and the associated morbidity and mortality; however, for a variety of diseases adherence is observed to be low.

New theories from psychology and behavioural economics suggest that behavioural biases, including status quo bias and inconsistent time preferences, prevent individuals' successful adherence to prescribed treatment regimens.[26] In addition, successful management of chronic conditions may involve medications and repeated consultations with a medical practitioner that are costly for affected individuals in terms of both time and money.

A cash transfer, or other incentive, that is conditional on an individual's adherence to chronic disease treatment regimens may be one means to assist individuals in following through on treatment courses.

The design of incentive programmes for treatment adherence is important. A key criticism of such programmes is that they may undervalue the individual's intrinsic valuation of treatment and reduce adherence if removed. Thus, it is likely that such an intervention would need to be implemented as part of a broader intervention involving counselling.

Another obstacle to the design of an incentive programme is the choice of benchmark upon which to measure adherence. Moreover, if such an intervention were to be implemented in South Africa, care would need to be taken in considering its interaction with the NHI.

TAX INCENTIVES

TAX INCENTIVES ON ANTIBIOTIC USE IN AGRICULTURE

Growing demand for animal protein could see livestock agriculture and the associated use of antimicrobials grow substantially in South Africa. One study forecasts that the country's use of antimicrobials in livestock farming could double by 2030.[87] Antimicrobial resistance is an emerging threat to local and global public health. Through the natural selection of bacteria exposed to antibiotics, excessive use of antibiotic medications in animals and humans has led to the emergence of antimicrobial-resistant pathogens. South Africa's high burden of bacterial infections means the continued efficacy of antibiotics is essential to the improvement of the population's health. The threat of antimicrobial resistance (AMR) has been recognised, and the Department of Health has prepared a National Strategic Framework to address AMR.

One of the four strategic objectives of the Framework is to "promote the appropriate use of antimicrobials in human and animal health". Tax incentives associated with reduced use of antimicrobials in agriculture could play a role in achieving this objective.

Two possible incentives are, on the one hand, to levy excise taxation on feed with added antimicrobials or, on the other, to offer corporate income tax (CIT) rebates for livestock farms adopting practices that reduce or eliminate the need for antibiotics.

TAX INCENTIVES ON CAPITAL INVESTMENT WITH OCCUPATIONAL HEALTH AND SAFETY BENEFITS

South Africa shoulders a heavy occupational health burden, especially due to occupational exposures in the mining industry. Although mechanisms are in place to compensate already injured workers for lost income, there is scope for fiscal policies to intervene to prevent work-related injury and disease.

Significant diseases attributable to occupational exposures include respiratory disease and noise-induced hearing loss. The equipment used on mines and in heavy industry can either ameliorate or exacerbate these exposures. More specifically, inadequate ventilation equipment leaves labourers open to inhaling suspended particulates, thus putting them at risk of contracting silicosis, TB and other respiratory diseases. Noise-induced hearing loss could also be prevented through the use of lower decibel-level equipment.

The price of equipment used in mining and industry does not fully incorporate the externality costs associated with their use, namely the health burden they create. There are theoretical grounds for fiscal policy to intervene and adjust prices to achieve socially optimal use of such equipment. Thus, tax incentives could be used to adjust the price of installation of equipment that reduces occupational exposures.

In particular, CIT rebates could be used to lower the cost of installation or use of (i) low noise-rated equipment (i.e. equipment with noise ratings below a particular threshold), and (ii) ventilation equipment with improved capabilities. These rebates would lower the effective relative price of this equipment, incentivise its installation and reduce hazardous exposures.

There is precedent for this kind of intervention: CIT incentives for capital investment are already included in the tax code.[88]

INCOME SUPPORT

CASH TRANSFERS FOR PREGNANT WOMEN

South Africa's social grant system is widely acknowledged as having been instrumental in the reduction of poverty and the improvement of nutrition for the highly deprived. At present, approximately 12 million child support grants (CSGs) are distributed every month to support caregivers and children. Caregivers responsible for children under the age of 18 are eligible to receive a means-tested monthly cash transfer of R350.

However, pregnant women are not eligible for this cash transfer and the support it provides. The in utero environment has been linked to a greater risk of low birth weight and the emergence of non-communicable disease in later life, particularly through poor maternal nutrition. In addition, poor in utero conditions have been linked to lower educational attainment and lower earnings later in life.

If eligibility for the CSG was extended to pregnant women, income support would be provided to women to ensure adequate nutrition and resources for accessing health care. The administration of this grant could be similar to the administration of the disability grant.

Eligibility for the latter grant is determined by a doctor who provides medical approval required by the South African Social Security Agency (SASSA). Similarly, pregnant women could be deemed eligible for the extension of the CSG by a doctor on antenatal visits. A benefit of such a formulation for the policy is that it would implicitly create an incentive for pregnant women to seek antenatal care.

CONCLUSION

The interventions identified through deliberation and consultation during the undertaking of the Inquiry on Fiscal Policies for Heath and summarized in this report, provide a starting point for considering the potential for fiscal policy to improve health in South Africa. All these interventions have the potential to impact South Africa's disease burden in meaningful ways. In the future for some there will be a need to examine issues relating to the feasibility of their implementation as well as to make a detailed assessment of their potential health impact. For the excise tax interventions where implementation infrastructure is already in place, and the existing evidence is deeper, these interventions should be taken forward.

CHAPTER 5

CONCLUSION AND WAYS FORWARD

BACKGROUND

South Africa's disease burden places a strain on South Africa's achievement of holistic development goals. South Africa lags far behind other countries of similar incomes on measures such as the Human Development Index, with the differences being driven largely by poor population health outcomes.[1] HIV/AIDS has played a significant role in this. However, with increasing roll-out of antiretroviral therapy, HIV-related morbidity and mortality have decreased; with the announcement of plans to introduce a "test and treat" programme, this reduction is likely to continue.[2] Of concern, though, is increasing health transition and a rise in non-communicable and lifestyle diseases.[3] In studies of South Africa's burden of disease, lifestyle behaviours rank high among modifiable risk factors.[4]

The policy toolbox to promote healthy lifestyles is limited. Population health is determined inside and outside of the health system, and thus policies aimed at improving health must also exist inside and outside of the health system. The WHO calls for a "Health in All Policies" approach to public policy-making that "systematically takes into account the health implications of decisions, seeks synergies, and avoids harmful health impacts in order to improve population health and health equity".[5] Fiscal tax and subsidy measures are not conventional health policy tools, but have been identified as both efficacious and cost-effective in promoting health and preventing disease.[6]

The feasibility of the proposed provision of universal health coverage in South Africa through the NHI may rest on effective adoption of health promotion and disease-prevention strategies. While estimates of the cost of the NHI depend on what is ultimately included in its as yet undefined benefits package, the NHI White Paper estimates the NHI will require expenditure of more than R250 billion in real terms by 2025.[7] A benefit of tax-based interventions to prevent disease is that they present the opportunity to win on both counts – to raise revenue for funding health systems and health promotion, and to reduce expenditure on the diseases and risk-factors they prevent.

The aim of this report has been to evaluate the potential fiscal policy interventions that may improve health. Chapter 2 presented the existing evidence on the disease burden and the risk factors potentially amenable to fiscal intervention. Chapter 3 described the fiscal policy environment and existing systems and infrastructure for the implementation of fiscal interventions. Chapter 4 presented a set of potential fiscal instruments.

Cumulatively, this report represents a first step in the promotion of the systematic consideration and incorporation of health in the design of fiscal policies.

BARRIERS TO IMPLEMENTATION

The political economy of taxation, and fiscal intervention more generally, is a complicated one in South Africa. The potential health benefits identified here must be weighed against the interests of those who benefit from continued consumption of these products. The producers, distributors and retailers of the products under consideration are often large multinational entities which, in the context of South Africa's high unemployment, could leverage public perception of them as significant employers to block policy that may harm their profits.

Another obstacle to the implementation of these fiscal measures is that consumption taxes are generally viewed as regressive taxes, with the poor paying a greater share of their income in these taxes. While this is perhaps true, tax paid as share of income is a static and limited measure of distributional tax incidence. A fuller analysis would be a counterfactual analysis that accounts for not only differences along the income distribution in the taxes effectively paid, but also the reduced incidence of morbidity and mortality experienced along the income distribution with the tax intervention in place or not and associated monetary health care costs. The inequality in access to health care in South Africa implies that, conditional on becoming ill, the poor are less likely to receive quality care and may have to pay out of pocket for care. Thus, at the higher levels of consumption at lower or zero tax levels, the poor who become ill will bear a higher cost for their consumption than the wealthy. These costs are not traditionally considered in measures of distributional incidence. Finally, assessment of the distributional incidence of individual fiscal policies should be viewed in the context of the broader fiscal system, noting that South Africa has a highly progressive system of fiscal policies once social transfers, VAT zero ratings and other subsidised services are taken into account.

OPPORTUNITIES FOR FURTHER RESEARCH

A key outcome of this project is the recognised need for further research. The limited modelling undertaken here identifies the power of particular conventional applications of commodity taxation. However, there is significant scope for the adoption of interventions that influence the prices of products that are either harmful or beneficial to health. As a part of the consultation process around the Inquiry on Fiscal Policies for Health, several fiscal policy interventions with the potential to address South Africa's health burden were identified; however, not all were thoroughly investigated due to resource constraints and limited published literature on their effectiveness.

Another identified need for research is on the methodology of ex-ante health impact analyses. The first concern relates to the availability of data. For these studies to be feasible and of a high standard, data on disease incidence and prevalence are required. Without such data, modelling will be limited to mortality outcomes and thus have limited use in health policy planning efforts. In addition, the methodology adopted here needs to be extended to incorporate dynamic changes in prices, incomes and disease environment, so as to provide a better projection of health and consumption outcomes.

FINAL THOUGHTS

Reducing the impact of South Africa's health burden on the well-being of the population will increasingly need to involve innovative whole-of-government approaches that address diets and lifestyles. Fiscal policies are non-health-system policies that could be leveraged to target particular risk factors. The use of these instruments should only be in instances where the evidence base is strong. Currently, there is a strong evidence base for alcohol, tobacco and sugary beverages, and in these cases fiscal policy could be leveraged to address their health impacts. However, in other instances additional research and evidence are still required. These opportunities must be explored so as to take advantage of the potential of fiscal policies to improve population health and well-being in South Africa.

ENDNOTES

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