



NATIONAL STRATEGIC PLAN

FOR THE PREVENTION AND CONTROL OF NON-COMMUNICABLE DISEASES

2022 – 2027



health

Department:
Health
REPUBLIC OF SOUTH AFRICA





The National Strategic Plan for the Prevention and Control of Non-Communicable Diseases, 2022 – 2027

was developed by the National Department of Health

© National Department of Health, 2022

Technical writing group: Prof D Basu, Dr J Kibachio Mwangi, Ms L Mahura, Ms B Nemkula, Dr K Ngako, Ms R Ntsie, Dr V Pinkney-Atkinson, Ms B Sayed, Mr I Setlhare, Ms SA Singh, Ms JM Tucker

Technical writer: Dr A Mosam

The NCD cluster within the National Department of Health is responsible for co-ordination of this Strategic Plan.

Disclaimer: This document has been prepared with all due diligence and care, based on the best available information at the time of publication. The department holds no responsibility for any errors or omissions within this document. Any decisions made by other parties based on this document are solely the responsibility of those parties. Information contained in this document is from several sources and as such does not necessarily represent government or departmental policy.

Health is both a contributor to, and a beneficiary of, all of the Sustainable Development Goals (SDGs).

We cannot go back to the same health systems model which has failed the majority of people living with NCDs+. We need a paradigm shift for chronic illness.

Dr Tedros Adhanom Ghebreyesus

Director-General, World Health Organization

Non-communicable diseases are widespread. *They have many dimensions, numerous causes, and countless undesirable consequences. But, there are proven ways to prevent and manage them.*

António Guterres

UN Secretary-General, 2018

Non-communicable diseases continue to outstrip infectious diseases in South Africa *according to Stats SA. A huge chunk of the deaths is due to diabetes and cardiovascular diseases including strokes. Cancer has also been rising to epidemic levels. These developments can be attributed to urbanisation, commercial determinants of health, risk behaviour such as tobacco use, harmful use of alcohol, unhealthy diets and lack of physical activity.*

Dr Joe Phaahla

Deputy Minister of Health

Budget Vote, 2019

The Covid-19 pandemic in South Africa underscores that living with an NCD+ makes us significantly vulnerable with an even greater risk of dying prematurely. *The pandemic exposes NCDs+ inequity in the health system requiring urgent, coordinated all-of-society and all-of-government policy and implementation along with adequate resources.*

Dr Vicki Pinkney-Atkinson

CEO, South African Non-Communicable Diseases Alliance, and a person who has lived with multiple NCDs+ since birth

FOREWORD



Non-communicable diseases (NCDs) and mental health disorders are leading causes of mortality, morbidity and disability in our country, and carry huge costs to patients, families, communities, the health system and the economy at large. I am not surprised that NCDs and mental health disorders have become about equity and human rights. People in low- and middle-income countries are disproportionately affected by NCDs, and the poorest and most vulnerable communities continue to be at highest risk for NCDs and experience the greatest barriers to accessing essential health care.

In recognition of the urgency to reduce the unacceptable human toll of NCDs, South Africa proudly supported the first UN Declaration on the Prevention and Control of Non-Communicable Diseases, which was signed by heads of state in 2011. This commitment was underscored in 2015 by the following global target: ‘By 2030, reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and wellbeing’, and the Third High Level Meeting on the Prevention and Control of NCDs held in 2018 where our country once again committed to sustainable plans to attain the target.

I am cognisant of the fact that our country’s efforts to meet the target are exacerbated by a high proportion of population ageing, a high burden of risk factors, many of which are preventable, a high burden of NCDs and mental health conditions, a high burden of multi-morbidities and disabilities as well as the significantly high impact of social, economic and commercial determinants of health. Additionally, the devastating impact of the Covid-19 pandemic on older persons, those with NCD co-morbidities and person who are obese, reminds us that that our response to NCDs must be enhanced.

The *National Strategic Plan for the Prevention and Control of Non-Communicable Diseases, 2022–2027* reflects the department’s sustainable, human-rights-based pathway to accelerate our response toward the prevention and control of NCDs, risk factors and mental health conditions. This Strategic Plan allows us the opportunity to adopt an integrated, person-centred approach, strengthen our health systems for NCDs, establish coordinated and cohesive engagements with stakeholders at all levels of care and promote the introduction and strengthening of care cascades for hypertension and diabetes.

I remain committed to ensuring the prioritisation and scale-up of the implementation of the Strategic Plan to ensure that we leave no one behind in our country.

A handwritten signature in black ink, appearing to read 'M J Phaahla', written over a circular stamp or seal.

Dr M J Phaahla, MP
Minister of Health

Date: 04/04/2022

MESSAGE



The *National Strategic Plan on the Prevention and Control of Non-Communicable Diseases, 2022 – 2027* is timeous indeed. The people of our country experience an escalating burden of NCDs and mental health disorders as well as risk factors, many of which are preventable. The high mortality rate and high rates of hospitalisation among older people, those with NCDs (both pre-existing and unknown), and obese people during the Covid-19 epidemic, have revealed the serious impact of gaps in the delivery of NCD services. This Strategic Plan recognises that prevention and control of NCDs are key to addressing equity and human rights. Globally, populations in low- and middle-income countries, including South Africa, are disproportionately affected by NCDs. The poorest and most vulnerable communities continue to be at highest risk for NCDs, experience the greatest barriers to accessing essential health care and, in recent times, experience substantial impact of the commercial determinants of health, which perpetuate ill health and limited development.

As we strive towards achieving universal health coverage and the desired development of our people, we have an obligation to show leadership from the highest level of government. This includes prioritisation and scale-up of NCD services, collaboration with partners, and accountability for required health outcomes. Our prioritisation must be based on evidence. I refer specifically with great concern to the Statistics SA Mortality Report (2017) which demonstrates a three-year trend analysis of underlying causes of deaths for the years 2015 to 2017. Not only are NCDs the majority among the top 10 ten causes of mortality, but also, diseases of the circulatory system increased in proportion from 17.8% in 2015 to 18.4% in 2017. This is compared to certain infectious diseases which declined from 19.5% in 2015 to a low of 17.6% in 2017 in the three-year period.

I am also cognisant that behind every element of data is a person with multiple and complex needs. In putting people, their families and communities at the centre of care, I urge all sectors, including other government departments, patient and civil society organisations, research and academic sectors as well as the private sector to work with the department to jointly reduce the burden of NCDs in our country.

A handwritten signature in black ink, appearing to read 'M Dhlomo'.

Dr SM Dhlomo, MP

Deputy Minister: Health

Date: 04/04/2022

ACKNOWLEDGEMENTS



The National Department of Health acknowledges the impact of the escalating burden of non-communicable diseases (NCDs) and risk factors on the health and development of the people of our country.

This burden of disease has a debilitating impact on patients living with NCDs, their families, communities, the health system, and the economy at large.

I am committed to ensuring that this National Strategic Plan on the Prevention and Control of NCDs, 2022–2027 by the Department of Health not only reduces the burden of NCDs through health system strengthening but also acknowledges the urgency of delivery of integrated person-centred care that is equitable, and rights based.

In adopting this approach, I am pleased that this Strategic Plan was finalised by stakeholders representing various sectors, including:

1. **Technical writing group:**

Prof D Basu, Dr J Kibachio Mwangi, Ms L Mahura, Ms B Nemkula, Dr K Ngako, Ms R Ntsie, Dr V Pinkney-Atkinson, Ms B Sayed, Mr I Setlhare, Ms SA Singh, Ms JM Tucker

2. **Other government departments:**

Department of Basic Education
Department of Trade and Industry
Department of Water and Sanitation

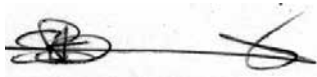
3. **Civil society organisations:** South African NCDs+ Alliance and Partners

4. **Persons, organisations and institutions that provided comments on the various drafts:**

Prof. K Hofman, Prof. B Cassim, Prof. M Ntsekhe, Prof. R Swart, Prof. A Robinson, Prof. S Brown, Prof. P Rheeder, Prof. T Young, Prof. J Geel, Dr S Rossouw, Ms C Browne, Mr R Sukdhev, Ms S Govender, Ms L Drummond, Ms A Croasdale, Abbot Diabetes Care, Johnson and Johnson, AbbVie, Beverages Association of South Africa (BEVSA), Pfizer Laboratories, The Noakes Foundation, Becton Dickinson (Pty) Ltd, Pfizer Laboratories, The Vapour Products Association of South Africa, The Nutrition Network, Consumer Goods Council of South Africa, The Lipid and Atherosclerosis Society of Southern Africa (LASSA), Ophthalmology Society of South Africa, Pharmacy Society of South Africa, South African Society of Physiotherapy, South African Medical Association (SAMA), Association for Dietetics in South Africa, Epilepsy South Africa, South African Society of Cardiovascular Intervention, South African Heart Association, The South African Medical Technology Industry Association, National Speech Therapy and Audiology Forum, Rural Rehab South Africa, Clinton Health Access Initiative (CHAI).

5. **Relevant health programmes and technical experts at national, provincial and district levels.**
6. **Costing:** Clinton Health Access Initiative (CHAI)
7. **Technical writer:** Dr A Mosam
8. **Technical and financial support:** World Health Organization (WHO SA)
9. **Funder:** The Better Health Programme SA (BHPSA) which is funded by the UK Foreign, Commonwealth and Development Office (FCDO) through the British High Commission in Pretoria and managed by Mott MacDonald. BHPSA funded the technical writer and hosted expert committees that contributed to the content of the NSP and other expert consultations.

I commend and thank all stakeholders for contributing towards our joint efforts to reduce the burden of NCDs and risk factors in our country.



Dr S S S Buthelezi
Director-General: Health

Date: 04/04/2022

EXECUTIVE SUMMARY

It is widely recognised, internationally and locally, that the ever-increasing burden of non-communicable diseases (NCDs+), including mental health disorders and disability, needs urgent intervention across the health sector and beyond. To this end, the United Nations (UN) and World Health Organization (WHO) have made successive declarations related to NCDs+, alongside a global move to adopt a 'health-in-all-policies' (HiAP), 'whole-of-government' (WoG) and 'whole-of-society' (WoS) approach to combat the rising prevalence of NCDs+.

In South Africa, NCDs+ are included in the commitments to health-system strengthening in the 2019 National Health Insurance (NHI) Bill and in the Presidential Health Compact. However, the profile of NCDs+ needs to be raised to the level of other priority programmes like tuberculosis (TB), and HIV and AIDS. Lessons learnt in these areas must be used to address the NCD+ burden in South Africa.

This NSP aims to move South Africa closer to Sustainable Development Goal (SDG) 3.4: **To reduce, by one-third, premature mortality from NCDs+ through prevention and treatment and promote mental health and well-being by 2030** through the progressive improvement of wellness and reduction of premature morbidity, disability and mortality from NCDs+. The NSP recognises the large number of health conditions covered by the NCDs+ umbrella and the associated wide range of determinants and risk factors (some of which are shared). It also acknowledges the difficulties and complexities of addressing the entire disease burden in one strategy.

In this context, this NSP endeavours to lay a foundation for action for all NCDs+ through:

- A focus on the 5x5 strategy to address the five major groups of NCDs+ (cardiovascular diseases, cancer, chronic respiratory diseases, diabetes and mental health, including neurological conditions) alongside five shared behavioural risk factors (tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol and air pollution); and,
- A cascading strategy, similar to the 90-90-90 approach for HIV and AIDS, and TB, initially designed to address the burden of diabetes and hypertension, and to be refined and updated progressively to include other NCDs+. The proposed 90-60-50 cascade for diabetes and hypertension is the first step to improving early detection and treatment of NCDs+ and is as follows:
 - 90% of all people over 18 will know whether or not they have raised blood pressure and/or raised blood glucose.
 - 60% of people with raised blood pressure or blood glucose will receive intervention.
 - 50% of people receiving interventions are controlled.

However, much more is needed to progressively realise SDG 3.4 and move South Africa towards universal health coverage (UHC). As such, the goals and objectives articulated in this NSP are set against the background of the following guiding principles: **human rights, equity, universal health coverage, integration, engagement with and empowerment of people and communities and the life course approach.**

Specific goals for this NSP are:

Goal 1: Prioritise prevention and control of NCDs+

A whole-of-government, whole-of-society response, inclusive of health in all policies, requires a comprehensive mandate for multisectoral coordinating mechanisms, actions and accountability frameworks to develop and implement the policies necessary to prevent and control NCDs+. Furthermore, comprehensive advocacy to both government and stakeholders is required to highlight the huge burden of NCDs+ and drive investment and capacity building for this disease group as a priority for social and economic development.

Goal 1 aims to raise the profile of NCDs+ as a priority group of conditions through strengthened national NCD+ leadership, accountability, partnerships and multi-sectoral collaboration, and advocacy for action in addition to strengthening capacity for implementation.

Goal 2: Promote and enable health and wellness across the life course

In alignment with the 5x5 strategy, reducing the levels of the five major shared and modifiable risk factors (tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol and air pollution) will contribute significantly to reducing the disease burden due to NCDs+. Reducing exposure to the NCDs+ risk factors requires a life-course approach and strengthening of the capacity of individuals and populations to adopt healthier behaviours and lifestyles that foster health and well-being. Finally, it requires the engagement of non-health sectors and non-state actors to address the social and commercial determinants of health and behaviour change.

Goal 2 aims to address the main risk factors for NCDs+ through targeted health promotion and disease prevention activities.

Goal 3: Ensure people living with NCDs+ (PLWNCDs+) receive integrated, people-centred health services to prevent and control NCDs+

To ensure integrated and comprehensive people-centred care, health systems must be improved according to the WHO Building Blocks.ⁱ This requires strengthening of primary healthcare (PHC) and district health services (DHS) as the platforms to deliver these critical services for NCDs+, with well-functioning referral linkages to secondary and tertiary care services including rehabilitation and palliative care services. Development and implementation of a cascade model is a realistic first step towards this goal.

Goal 3 aims to improve people-centred delivery of prevention, diagnosis, treatment, adherence, rehabilitation and palliative care services across the life course, through a health-system-strengthening approach.

ⁱ WHO Building Blocks are: Service delivery, health workforce, health information systems, access to essential medicines, financing and leadership/governance.

Goal 4: Promote and support national capacity for high-quality research and development for the prevention and control of NCDs+

Priorities for research related to NCDs+ must be included in the national research agenda. The information and knowledge generated by this research must support efforts to mobilise resources and monitor the effectiveness of interventions.

Goal 4 aims to augment the repository of context-specific information and knowledge of NCDs+ through enhanced platforms and mechanisms for research and dissemination and use of its results.

Goal 5: Monitor strategic trends and determinants of NCDs+ to evaluate progress in their prevention and control

Integration of existing routine data collection, reporting and surveillance systems is necessary for better-informed priority setting and programme planning. Continuous monitoring and dissemination of knowledge related to progress towards the NCDs+ targets will provide the foundation for advocacy, policy development and coordinated action and reinforce political commitment.

Goal 5 aims to improve the data available on NCDs+ and their relevant programmes through enhanced monitoring and evaluation.

Taking all the above into consideration, this NSP wishes to highlight and reinforce the role and mandate of the provincial departments of health and districts in implementing this strategy, as well as the importance of health and non-health stakeholders in achieving SDG 3.4 and the goals of this plan.

Through this plan, the National Department of Health (NDoH) commits to working closely with implementing partners and stakeholders to develop context specific strategies and plans and to support and coordinate activities to strengthen the evidence base for resourcing equitable and cost-effective interventions that will address the burden of NCDs+ in South Africa.

TABLE OF CONTENTS

FOREWORD	ii
MESSAGE	iii
ACKNOWLEDGEMENTS	iv
EXECUTIVE SUMMARY	v
GLOSSARY OF TERMS	x
LIST OF ABBREVIATIONS	xiii
CHAPTER ONE: THE BURDEN OF NON-COMMUNICABLE DISEASES	1
1.1 Introduction.....	1
1.2 Status, trends and determinants of main NCDs+	4
1.3 Risk factors for NCDs+.....	8
1.4 Global and regional commitments	14
1.5 National, organisational, response and commitment.....	14
1.6 Multisectoral and multistakeholder action.....	17
1.7 Rationale for action	19
CHAPTER TWO: THE NATIONAL STRATEGIC PLAN FOR NON-COMMUNICABLE DISEASES	21
2.1 Scope of the national strategic plan for NCDs+	21
2.2 Vision.....	23
2.3 Mission	23
2.4 Aim, goals, strategic objectives and targets.....	24
2.5 Cascading approach	24
2.6 Foundation for action	24
CHAPTER THREE: GOALS AND STRATEGIC OBJECTIVES OF THE NATIONAL STRATEGIC PLAN	27
Goal 1: Prioritise prevention and control of NCDs+	28
Goal 2: Promote and enable health and wellness across the life course	29
Goal 3: Ensure people living with NCDs+ (PLWNCDs+) receive integrated, people-centred health services to prevent and control NCDs+	30
Goal 4: Promote and support national capacity for high-quality research and development for the prevention and control of NCDs+	31
Goal 5: Monitor strategic trends and determinants of NCDs+ to evaluate progress in their prevention and control.....	31
CHAPTER FOUR: COSTING AND FINANCING NCDs+ UNDER NHI IN SOUTH AFRICA	33
4.1 The case for investment in NCDs+	33
4.2 The context: Transition to National Health Insurance (NHI) in South Africa.....	34
4.3 Establishing national capacity for costing and economic evaluations	35
4.4. Examples of anticipated national health sector stakeholder roles in costing and economic evaluation	36
4.5. Conclusion	36
CHAPTER FIVE: IMPLEMENTATION OF THE NATIONAL STRATEGIC PLAN.....	37
5.1 Introduction.....	37
5.2 Theories and models for implementation	39
5.3 Evaluation of this plan	40
REFERENCES	41
APPENDICES	45
Who NCDs+ targets and indicators 2013-2025 indicators.....	45
List of relevant acts and policies	48
Stakeholders to the South African health sector.....	51
Policy and implementation options for consideration when developing provincial and district implementation plans	53
Templates to develop implementation plans.....	55

GLOSSARY OF TERMS

Best buys are highly cost-effective, but feasible and appropriate interventions to implement within the constraints of health systems, especially in low- and middle-income (LMIC) countries.¹

The **care pathway** is the steps in a course of treatment or care in a plan, pathway, or other 'inventory of actions'. It may be comprised of multiple visits and varying levels of care and by a multidisciplinary team. A care pathway aims to standardise care for a specific condition and the procedure for specific services and is used to translate guidelines or evidence into clinical practice.²

Coproduction in healthcare: People living with NCDs+ contribute to the provision of health services as partners of professional providers. This can take place on the macro level, that is, between government and patient organisations, the meso level (between the healthcare institution's board of directors and their client council), and on a clinical microsystem level (between healthcare professionals and patients on a specific ward). Coproduction in healthcare is a key component of integrated, people-centred health services.

Continuum of NCDs+ care (CoNC): Continuum of care is a public health tool that helps us understand and manage all the stages of NCDs+ in two or more of the following dimensions: progression (when), setting of care/ level (where), points on the life course (what) and caregivers including self-care (who). It is linked to the concept of integration and has been adapted here for NCDs+ and disabilities.

Control: This refers to deliberate and continuous forms of treatment, including rehabilitation and palliative care, to reduce morbidity and mortality from a condition so that clinical outcome indicators are within an acceptable and defined range. The nature of treatment varies from condition to condition.

Disability is the loss or elimination of the opportunity to take part in the life of the community, equitably with others, which is experienced by someone with physical, sensory, psychological, developmental, learning, neurological or other impairments, that may be permanent, temporary or episodic, and restrict activity and participation in mainstream society.

Disease prevention is firstly, the action taken to prevent disease and secondly, should disease occur, efforts to eliminate or minimise its impact, which includes disability or death. Levels of disease prevention (i.e., primordial, primary, secondary and tertiary) are defined below.

The **health-in-all-policies (HiAP)** approach systematically takes into account the health implications of public policy decisions, looks for synergies, and avoids harmful health impacts to improve population health and health equity. It reflects the principles of legitimacy, accountability, transparency and access to information, participation, sustainability and collaboration across sectors and levels of government.³

An **integrated people-centred health service** approach to health service delivery is:

- Quality and co-produced.
- Accessible to all people and meets their life course needs.
- Coordinated across the continuum of care.
- Comprehensive, safe, effective, timely, efficient and acceptable.
- Provided by carers who are motivated and skilled and operate in a supportive environment.

Health promotion is the process of enabling people to increase control over, and to improve, their health to reach a state of physical, mental and social well-being.ⁱⁱ

Integrated health services are delivered and managed throughout the life course of a person in a continuum of health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, and according to their needs throughout their life course.⁴

Management refers to the actions and activities needed to control a health condition.

Multimorbidity is the co-existence of two or more chronic diseases (in any disease category) in one person. It is associated with an increasing possibility of inequities in access to care.

Multisectoral collaboration is a recognised relationship between different sectors of society, such as ministries (e.g., health and education), agencies, not-for-profit and non-governmental organisations, the private (for-profit) sector, and community representation, formed to take action to achieve outcomes in a more effective, efficient or sustainable way than might be achieved by a sector acting alone.⁵

Modifiable risk factors can be reduced or controlled by intervention thereby reducing the probability of disease. The five major risk factors are physical inactivity, tobacco use, harmful use of alcohol, unhealthy diet (high fat and sodium, with low fruit and vegetable intake) and air pollution. *See 5x5 approach on page 8.*

National health insurance (NHI) is a financing system in which a national health insurance fund is established and funded through mandatory prepayment to achieve universal access to quality health care services.⁶

Non-communicable diseases plus (NCDs+) refers to the entire group of NCD conditions, including risk factors and disabilities.

NCDs+ indicators are indicators in NCD+ prevention and control that help measure (indicate) the extent to which planned activities have been conducted (process and output indicators) and achievements have been made (outcome and impact indicators).

Non-modifiable risk factors are mainly biological factors that cannot be reduced or controlled by intervention, for example, age, gender, race and genetic predisposition as a result of family history.

ii See: <https://www.who.int/westernpacific/about/how-we-work/programmes/health-promotion>

Palliative care for NCDs+ improves the quality of life of patients (adults and children) and families facing terminal illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual. Palliative care is crucial to integrated people-centred health services (IPCHS) and requires integration at all levels of care.

Presenteeism, the practice of coming to work despite illness, injury and anxiety, often results in reduced productivity.

Primary prevention: These are actions taken to protect the health of individuals by modifying risk factors for diseases through personal and communal efforts.

Primordial prevention is population-level measures to prevent the development of modifiable risk factors and includes policy, programmes, education and environmental changes to support healthy ways of living.

A risk factor is a characteristic that increases a person's chance of getting a disease. Usually, the presence of more risk factors results in a greater chance of developing a disease or condition. Risk factors are either modifiable or non-modifiable.

Secondary prevention is a health intervention available to an individual and community for early detection (screening and diagnosis) and prompt intervention to manage and control disease, reduce mortality and minimise disability and the burden of disease (morbidity).

Tertiary prevention softens the impact of chronic disease and disability by minimising suffering and maximising years of useful life. It includes rehabilitation and palliative care.

Treatment is management and care of a person to manage or cure a disease, injury, or disorder and includes both medical and surgical interventions.

Universal health coverage (UHC) delivers access to health services to all those who need them, when and where they need them, without financial hardship. It includes the full range of essential health services, from health promotion to prevention, treatment, rehabilitation and palliative care. UHC is the overarching goal of SDG 3.⁷

A **whole-of-government** or **whole-of-society approach** is one in which public service agencies work across portfolio boundaries, formally and informally, to achieve shared goals and an integrated government response to particular issues. It aims to achieve policy coherence to improve effectiveness and efficiency. This broader approach with a focus on programme and project management as well as policy, addresses any inherent departmentalism and unites different departments around a common cause.⁸

LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome	MTSF	Medium-term strategic framework
APP	Annual performance plan	NAPHISA	National Public Health Institute of South Africa
ARV	Antiretroviral therapy	NCDs+	Non-communicable diseases plus
CCMDD	Centralised chronic medicines dispensing and distribution	NDoH	National Department of Health
CoCN	Continuum of NCDs+ care	NDP	National Development Plan 2030
COPD	Chronic obstructive pulmonary diseases	NGO	Non-governmental organisation
Covid-19	Coronavirus Disease 2019	NHBD	National Health Benefits Database
CUP	Contracting unit for primary healthcare	NHI	National Health Insurance
DALY	Disability-adjusted life year	NICD	National Institute for Communicable Diseases
DATCOV report	Daily hospital surveillance report	NIDS	National indicator data set
DHP	District health plan	NSP	National strategic plan
DHS	District health service	PDoH	Provincial department of health
DoRA	Division of Revenue Act	PHC	Primary healthcare
FAOstat	Food and Agriculture Organization of the United Nations statistics	PLWNCDs+	Person or people living with NCDs+
FBS	Food balance sheet	PM	Particulate matter
FCTC	Framework Convention on Tobacco Control (WHO)	SA	South Africa
GAP	Global Action Plan for the prevention and control of NCDs+ (WHO)	SADHS	South African Demographic and Health Survey
GDP	Gross domestic product	SDGs	Sustainable Development Goals
HiAP	Health-in-all-policies	SDH	Social determinants of health
HIV	Human Immunodeficiency Virus	SMART	Specific, measurable, achievable, realistic and time bound (indicators)
HMIS	Health Management Information System	StatsSA	Statistics South Africa
ICD	International Classification of Diseases	T2DM	Type 2 diabetes mellitus
ICSM	Integrated clinical services management (NDoH)	TB	Tuberculosis
IPCHS	Integrated people-centred health services (WHO)	UHC	Universal health coverage
LMICs	Low- and middle-income countries	WHO	World Health Organization
MDG	Millennium Development Goal	WaSH	Water, sanitation and hygiene
MTEF	Medium-term expenditure framework	WoS	Whole of society
		WoG	Whole of government



CHAPTER ONE

THE BURDEN OF NON-COMMUNICABLE DISEASES

This chapter focuses on the status, trends and determinants of NCDs+ and their associated risk factors and documents current responses to the NCD+ disease burden in South Africa.

1.1 INTRODUCTION

Non-communicable diseases (NCDs+), including mental health disorders and disability, pose some of the greatest threats to health and development, particularly in low- and middle-income countries (LMICs).⁹ It is globally recognised that unless proven interventions, innovative and sustainable funding models and high-level political support are rapidly implemented in countries in the short to medium term, healthcare costs will increase exponentially with severe consequences for individuals, families, communities and economies. NCDs+ are already the leading cause of death and disability in South Africa. This burden is compounded by the increasing prevalence of multimorbidities in people living with NCDs+ (PLWNCDs+). Without dedicated and focused health and development action the consequences will be catastrophic.

Poverty, rapid urbanisation, industrialisation, population ageing, globalisation of marketing and trade, poorly developed health systems and other social, cultural and commercial determinants of health are some of the contributors to the rising incidence and prevalence of NCDs+.¹⁰

The significant cost and heavy burden of disease and disability can be avoided through robust, evidence-informed, context-specific, comprehensive prevention and promotion strategies to address the modifiable risk factors associated with NCDs+,¹¹ and by interventions to manage and control NCDs+ and avoid complications that patients, their families and the health system cannot afford.

Successive UN and WHO declarations on NCDs+ (2011, 2015, 2018) aim to use a multisectoral approach to achieve comprehensive prevention and control. The overwhelming and broad consensus is that this should involve adopting a 'health-in-all-policies' (HiAP), 'whole-of-government' (WoG) and 'whole-of-society' (WoS) approach to comprehensively address NCDs+ mortality and morbidity.¹² Evidence shows that unless urgent action is taken to address the many different determinants of health, South Africa and much of the world, will not meet the Sustainable Development Agenda 2030, and in particular, Sustainable Development Goal (SDG) target 3.4., which embraces the WHO Global Action Plan for the Prevention and Control of NCDs+. The WHO high-level commission on NCDs+ and the 2018 UN General Assembly Declaration have stated that to accelerate progress toward reaching SDG Target 3.4, heads of state and government, as well as health ministers must oversee the process of creating ownership of NCDs+ at national level.^{9,13}

Evidence-based, targeted interventions are urgently needed to promote health, prevent disease, and provide equitable and more effective care and treatment for people living with NCDs+ (PLWNCDs+). These interventions must be available as a continuum of care (CoNC) and should cater to all PLWNCDs+, across age and ethnic groups, provinces and gender. National commitments to health-system strengthening and improvements in quality of care have been made through the 2019 NHI Bill and the Presidential Health Compact.^{6,14}

At a local level, strengthening of integrated people-centred health services (IPCHS) (Figure 1) through care pathways is essential to the provision of context-specific, appropriate, quality care.⁴ Additionally, lessons from the fight against HIV and AIDS – implementation of the 90-90-90 care cascades, treatment literacy and improved self-management, differentiated models of care, group support, enhanced procurement and access to essential medicines and focussing on areas of greatest need – must be leveraged to address the NCD+ burden.

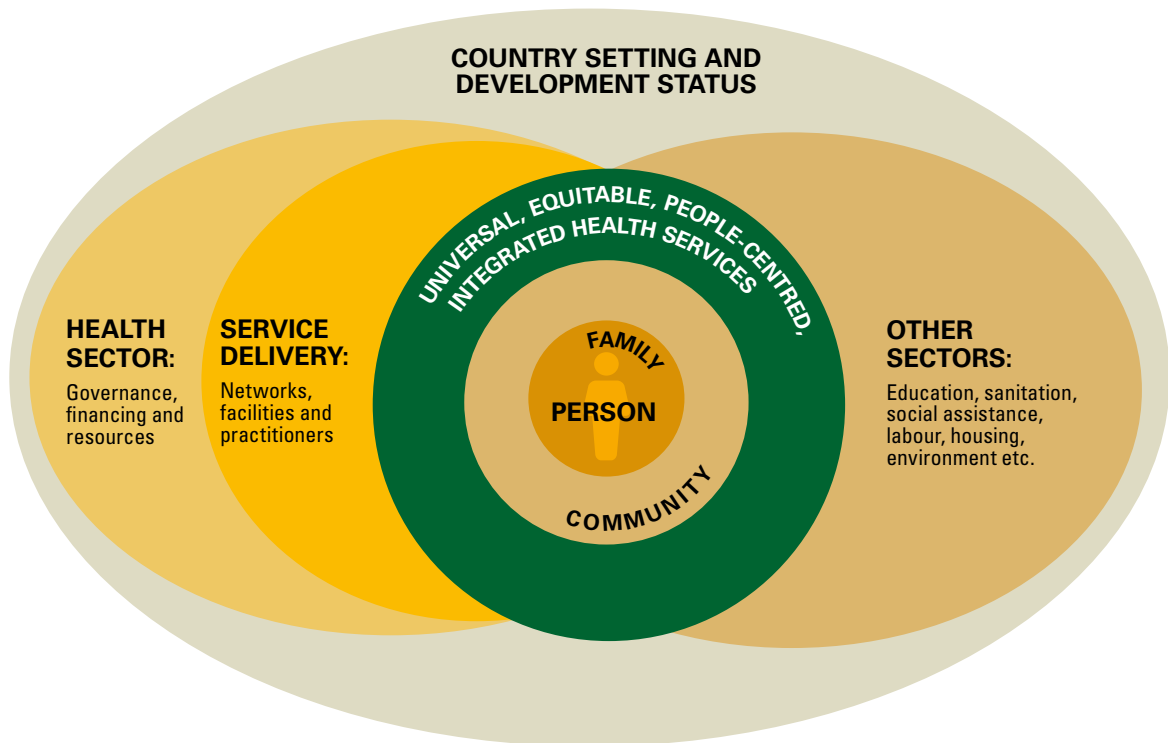


Figure 1: Conceptual framework for people-centred and integrated health services.

Source: IPCHS

This National Strategic Plan (NSP) directs the actions to be taken between 2022 and 2027, across health and other sectors, to address and reverse the present and growing threat posed by NCDs+. The overarching aim of the NSP is aligned to SDG target 3.4: **To reduce, by one-third, premature mortality from NCDs+ through prevention and treatment and promote mental health and well-being by 2030.**¹⁵ It should be noted, however, that integrated prevention and control of NCDs+ relates to many elements of SDG 3 (Figure 2) and beyond to 13 other SDGs (see Figure 3).

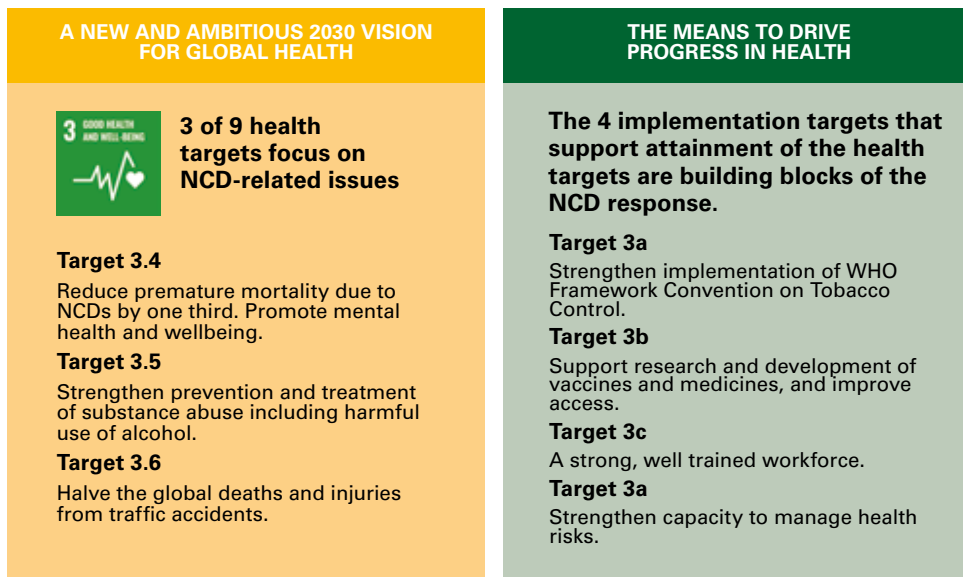


Figure 2: SDG3 NCDs+ targets and means of implementation.

Source: NCD Alliance



Figure 3: NCDs+ across the SDGs and sectors: an integrated approach to health and NCDs+. ¹⁶

Source: NCD Alliance

The scope of this NSP, therefore, is to define incremental strategic and implementation steps to attain the SDG targets relating to NCDs+ prevention and control and to progressively move South Africa towards universal health coverage (UHC) using an integrated, people-centred health services (IPCHS) approach.

1.2 STATUS, TRENDS AND DETERMINANTS OF MAIN NCDs+

Globally, non-communicable diseases kill 41 million people a year, which equates to 71% of all global deaths. Each year, 15 million people between the ages of 30 and 69 years die from an NCD+; over 85% of these premature deaths occur in low- and middle-income countries (LMICs).¹⁷

The WHO estimates that deaths from NCDs+ are likely to increase globally by 17% over the next ten years, and that the African region will experience a 27% increase, which amounts to 28 million additional deaths; it is projected that by 2030, the number of deaths from NCDs+ will exceed deaths due to communicable, maternal, perinatal and nutritional diseases combined.¹⁸ In South Africa, although the burden due to communicable disease and maternal and child health has decreased since the late 2000s, the NCD+ burden has increased (Figure 4).

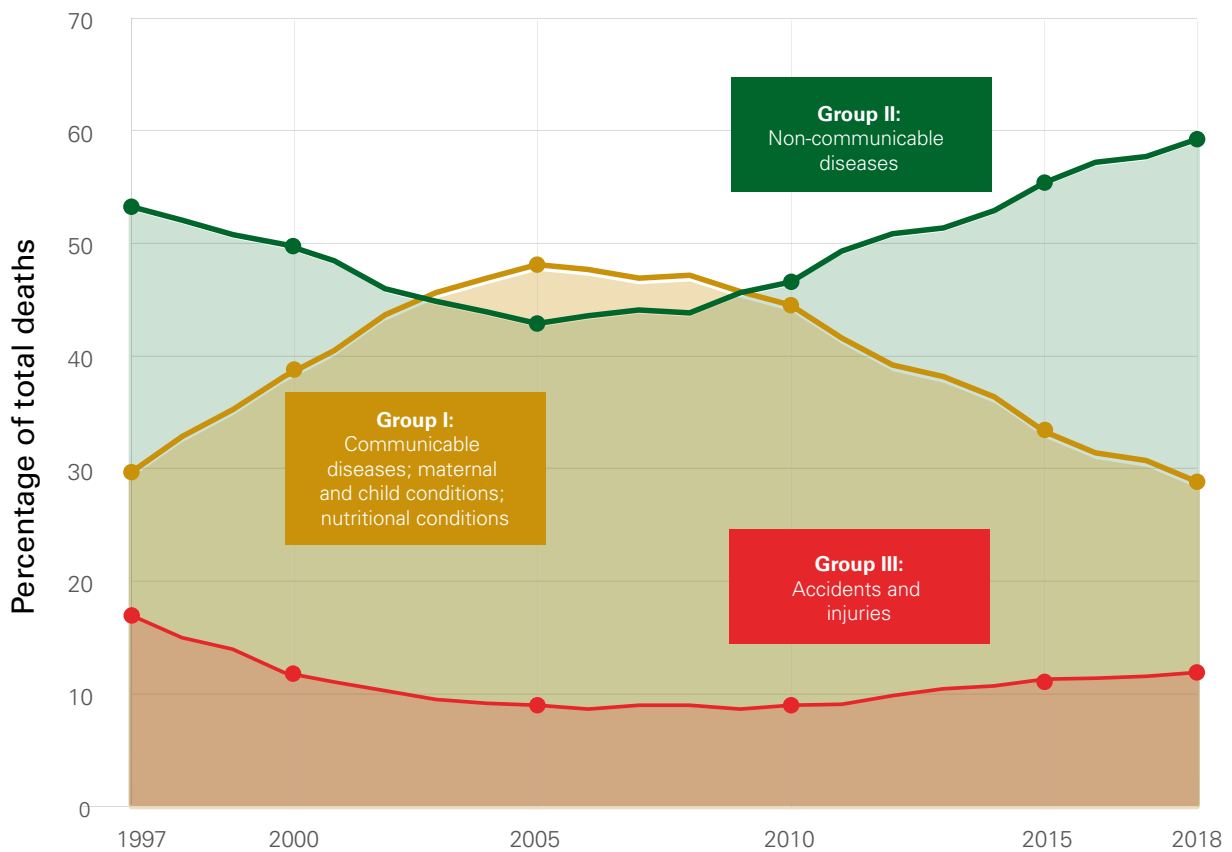


Figure 4: Cause of mortality in South Africa by disease grouping (1997 – 2018)¹⁹

Source: Statistics South Africa

Although there has been a slight decrease in premature mortality for males and females since 2000, projected trends indicate that they will be insufficient to reach the global targets by 2025 (see Figure 5).²⁰

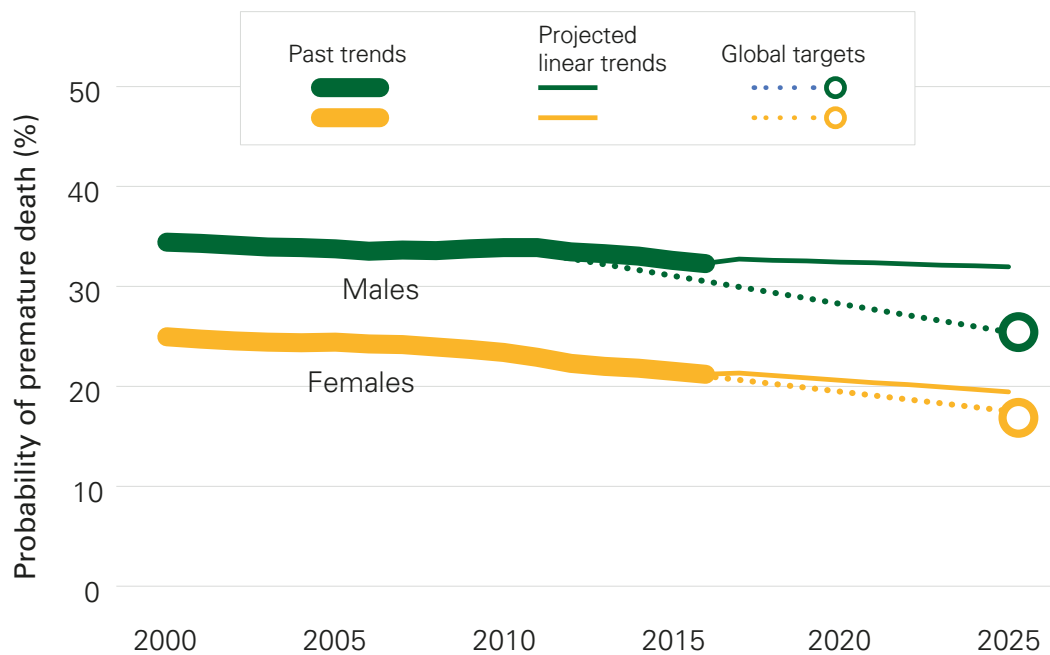
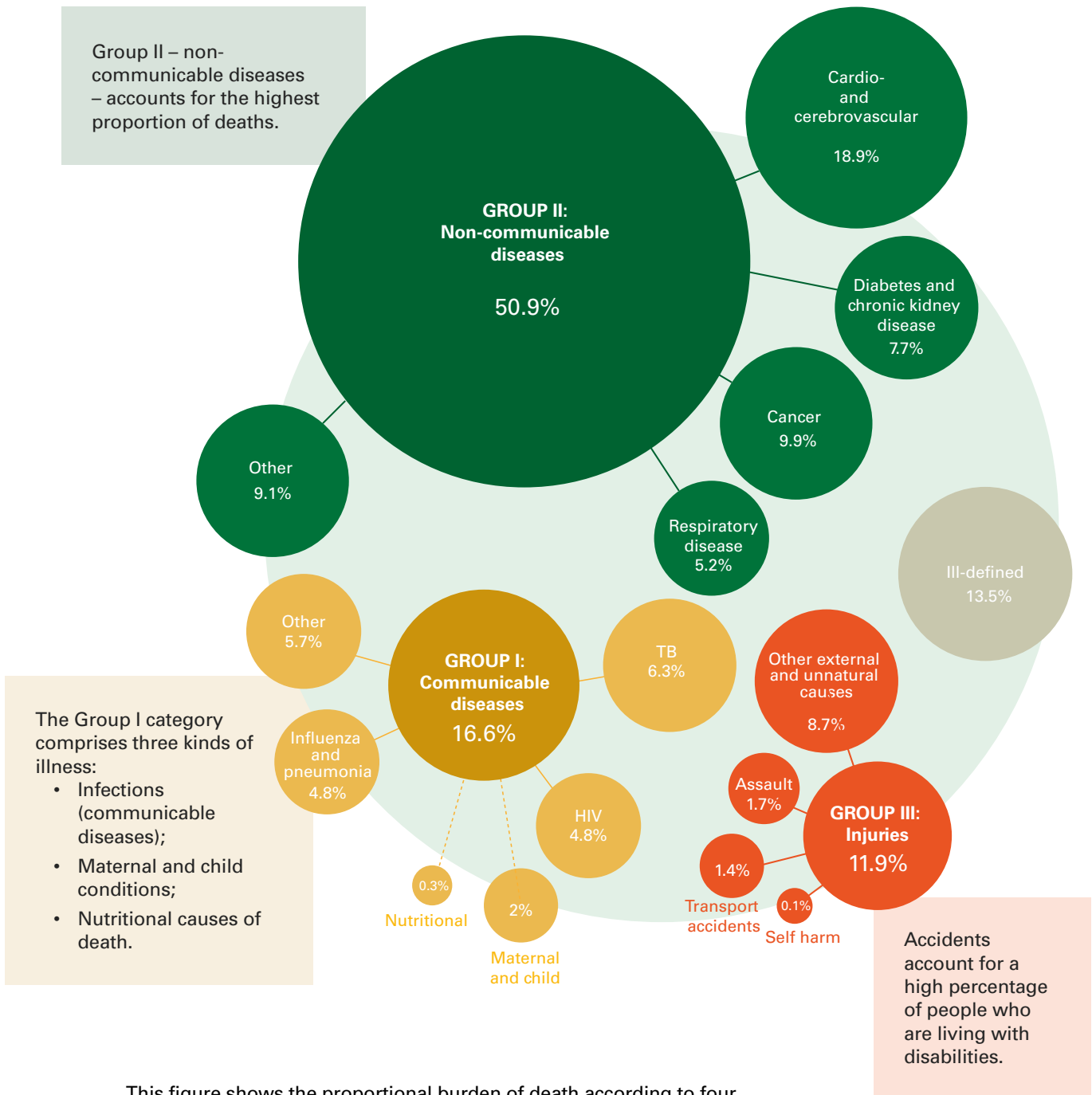


Figure 5: Trends in premature deaths due to NCDs+ in South Africa 2016 ²⁰

Source: World Health Organization

Within the NCD+ group of diseases, the highest single cause of death is from cardiovascular disease, followed by cancer, diabetes and chronic respiratory disease (Figure 6).¹⁹ This closely approximates the disease burden highlighted in the 5x5 agenda, namely, cardiovascular disease, cancer, diabetes, chronic respiratory diseases and mental health conditions.^{9,12}

Diabetes, stroke and ischaemic heart disease also rank in the top-ten conditions that contribute to both death and disability. Figure 7 highlights the conditions most strongly associated with disability in South Africa from 2007–2017.²¹



This figure shows the proportional burden of death according to four major categories using the ICD-10 disease classification with data from the Statistics South Africa report, Mortality and causes of death in South Africa: Findings from death notification (2018).¹⁹

Figure 6: Mortality in South Africa by grouped disease category 2018¹⁹

Source: Statistics South Africa

	2007	2017		% change
HIV and AIDS	1	1	HIV and AIDS	-10.8
Headache disorders	2	2	Headache disorders	14.5
COPD	3	3	Diabetes	29.3
Diabetes	4	4	Low back pain	22.2
Depressive disorders	5	5	Depressive disorders	15.7
Low back pain	6	6	COPD	1.4
Age-related hearing loss	7	7	Age-related hearing loss	22.1
Anxiety disorders	8	8	Blindness and vision impairment	22.3
Blindness and vision impairment	9	9	Anxiety disorders	9.7
Drug-use disorders	10	10	Neonatal disorders	54.3
Neonatal disorders	15	11	Drug-use disorders	-14.5



 Communicable, maternal, neonatal and nutritional diseases
 Non-communicable diseases

Figure 7: Top ten causes of years lived with disability (YLD) in South Africa.²¹

Source: Institute for Health Metrics and Evaluation

Multimorbidity – the coexistence of multiple health conditions – is a substantial challenge for the management of NCDs+. Developing one or more NCD+ (which often happens after the age of 40) increases a person’s vulnerability to disease – both NCDs+ and communicable diseases. The effects of both categories of disease are compounded in a person who is living with an NCD+ and a communicable disease. The risk of developing an NCD+ increases in a person who is living with a communicable disease; likewise, someone living with an NCD+ is at greater risk of being infected with a communicable disease.^{2,23}

It is estimated, for example, that the highly prevalent NCD+, type 2 diabetes mellitus (T2DM), triples the risk of infection with tuberculosis (TB). There is also a proven increased risk of metabolic disease for those living with HIV who take lifelong combined antiretroviral therapy (ARVs). These are important findings given the high burden of TB and HIV in South Africa.²⁴

People living with non-communicable diseases and risk factors such as obesity have been at a higher risk of contracting Covid-19 and have experienced more serious complications and higher rates of mortality when infected with Covid-19.²⁵

In South Africa, in-hospital mortality due to Covid-19 has been strongly associated with pre-existing NCDs+ such as hypertension, diabetes, chronic cardiac disease, chronic renal disease, malignancy and obesity (see Figure 8).^{26,27} Furthermore, the disruption of access to and provision of routine NCD+ health services led to the deterioration in the health of people living with non-communicable diseases (PLWNCDs+) and measures like hard lockdowns that were taken to stall the pandemic may have increased behavioural risk factors such as physical inactivity, unhealthy diets and harmful use of alcohol.²⁸

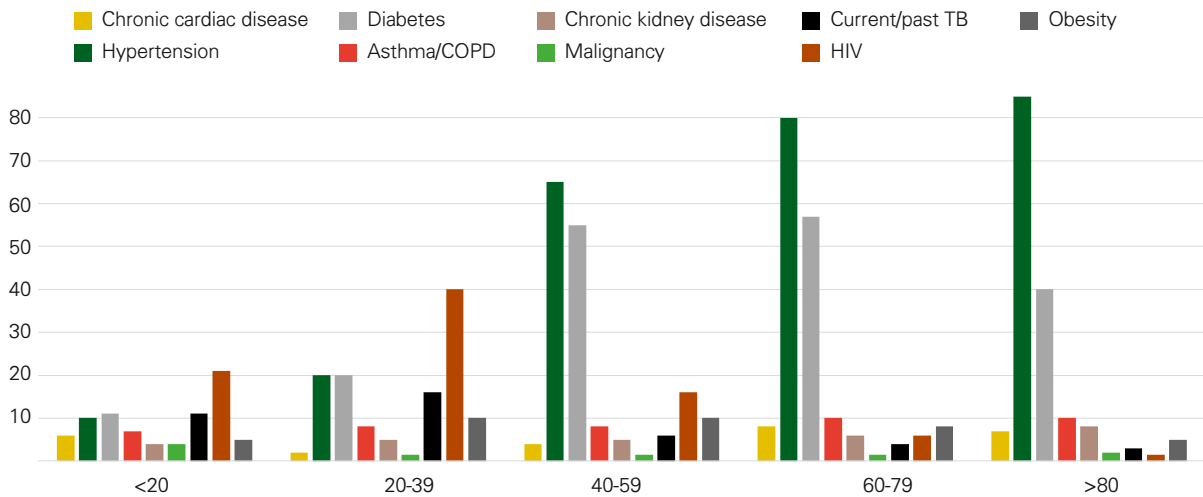


Figure 8: Percentage of comorbidities among in-hospital Covid-19 deaths, by age group, South Africa, 5 March 2020 to 13 November 2021.

Source: DATCOV national COVID-19 hospital surveillance, NICD

1.3 RISK FACTORS FOR NCDs+

NCDs+ are the product of non-modifiable risk factors such as genetics and age, and modifiable factors such as social and behavioural determinants. Although genetic predisposition plays a role in NCDs+ such as cancer, diabetes, cardiovascular diseases, mental health and asthma, and genetically predisposed individuals may develop disease regardless of modifiable risk factors, pursuing a healthy lifestyle will help to ensure that other factors do not augment their risk for disease.²⁹

The global 5x5 strategy (Figure 9) identifies five risk factors as determinants for the five major NCDs+, namely, cardiovascular diseases, cancer, diabetes, chronic respiratory diseases and mental health conditions. These risk factors are: an unhealthy diet, insufficient physical activity, air pollution and tobacco and alcohol use. In South Africa, the risk factors that contribute to the highest burden of mortality and morbidity include three of five global risk factors identified (Figure 9).

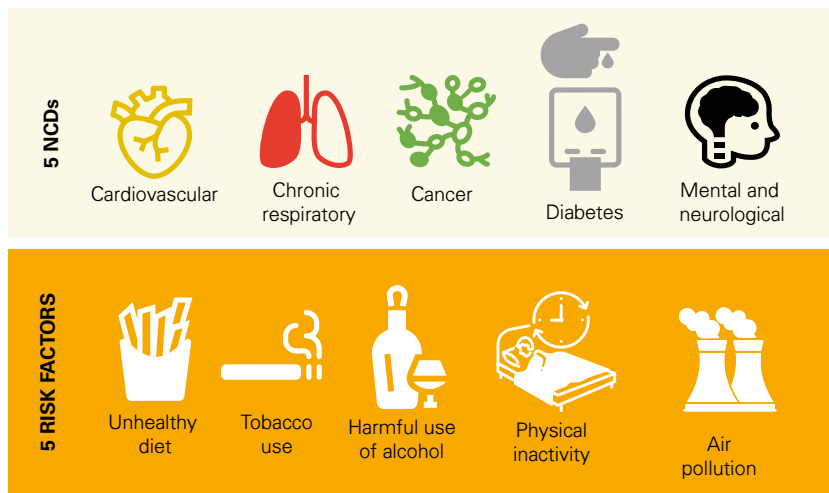


Figure 9: 5x5 Strategy for NCDs

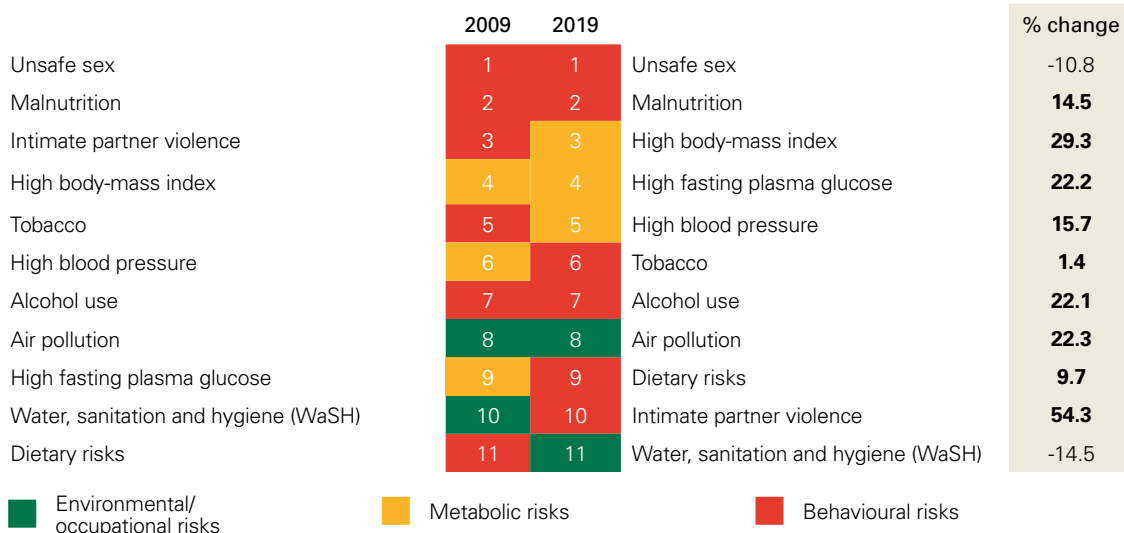


Figure 10: Top 10 risks contributing to total number of disability-adjusted life years (DALYs) in 2019 and change (percent), 2009–2019, all ages combined²¹

Source: Institute for Health Metrics and Evaluation

The burden of each of the 5x5 risk factors in South Africa is summarised below:

a. Tobacco use



According to the 2016 South African Demographic and Health Survey (SADHS), 37% of men and 7% of women smoke tobacco products. Of everyday smokers, the majority (75% women and 64% men) smoke between one and nine cigarettes a day while 12% of women and 18% of men smoke 15 or more.³⁰

Overall, there was a progressive decrease in smoking between 1993 (33%) and 2012 (18%) but this has plateaued in recent years, with the possibility that global targets for smoking prevalence in men will not be reached (see Figure 11).²⁰

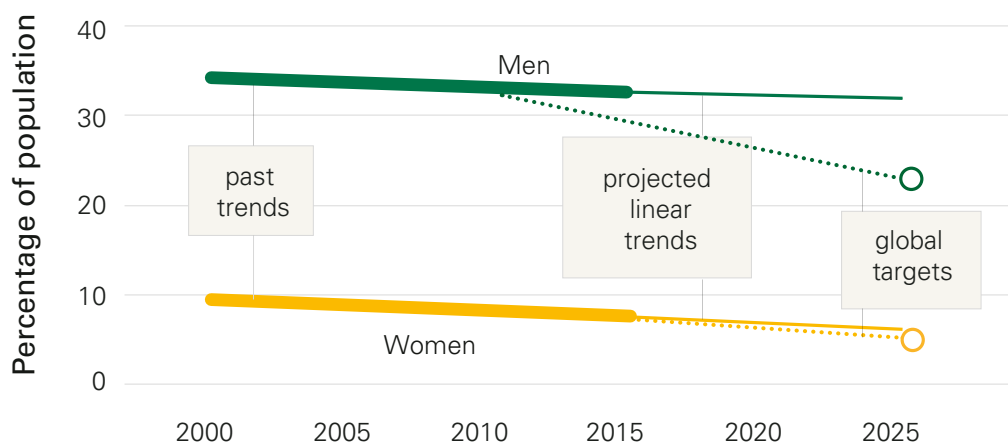


Figure 11: Prevalence of smoking in South Africa, 2000–2025.²⁰

Source: World Health Organization. Noncommunicable diseases country profiles 2018

b. Alcohol use



In 2018, the WHO estimated the average annual per capita consumption of alcohol for South Africa (persons over 15 years of age) at 29.9 litres (drinkers only); of those who were drinkers, 59% were heavy episodic drinkers. Furthermore, the prevalence of alcohol-use disorders was 7%, almost double the prevalence in Africa.³¹

The culture of heavy drinking in South Africa, and the alcohol dependence associated with it, were highlighted during Covid-19 lockdowns when the sale and consumption of alcohol was banned and, as a result, cases of alcohol-related trauma decreased substantially.³²

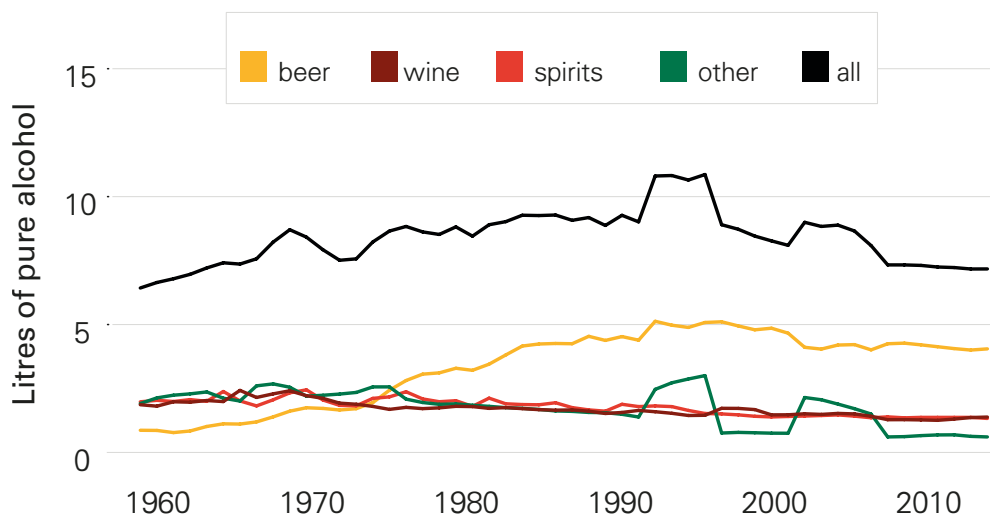


Figure 12: Recorded alcohol consumption in South Africa (1961-2016) ³¹

Source: World Health Organization. Global status report on alcohol and health 2018

c. Unhealthy diet



Like many low- and middle-income countries, South Africa bears the double burden of undernutrition coupled with obesity and diet-related NCDs+. The South Africa Demographic and Health Survey (SADHS) for 2016 found that only 32% of babies were exclusively breastfed at six months and that only 23% of children aged 6-23 months had a minimum acceptable diet.³⁰

In older children, poor diet was characterised by a high intake of sugary drinks and sugary and salty snacks. South Africa experienced an increase from 1994 to 2012 in energy intake, sugar-sweetened beverages, processed and packaged foods, animal source foods, and added caloric sweeteners, while the consumption of vegetables decreased. The most drastic increase (>50%) was in the consumption of processed and packaged food, such as soft (sugary) drinks, sauces, dressings and condiments, and sweet and savoury snacks. These significant changes in food consumption patterns may be due to the changing food environment.³³

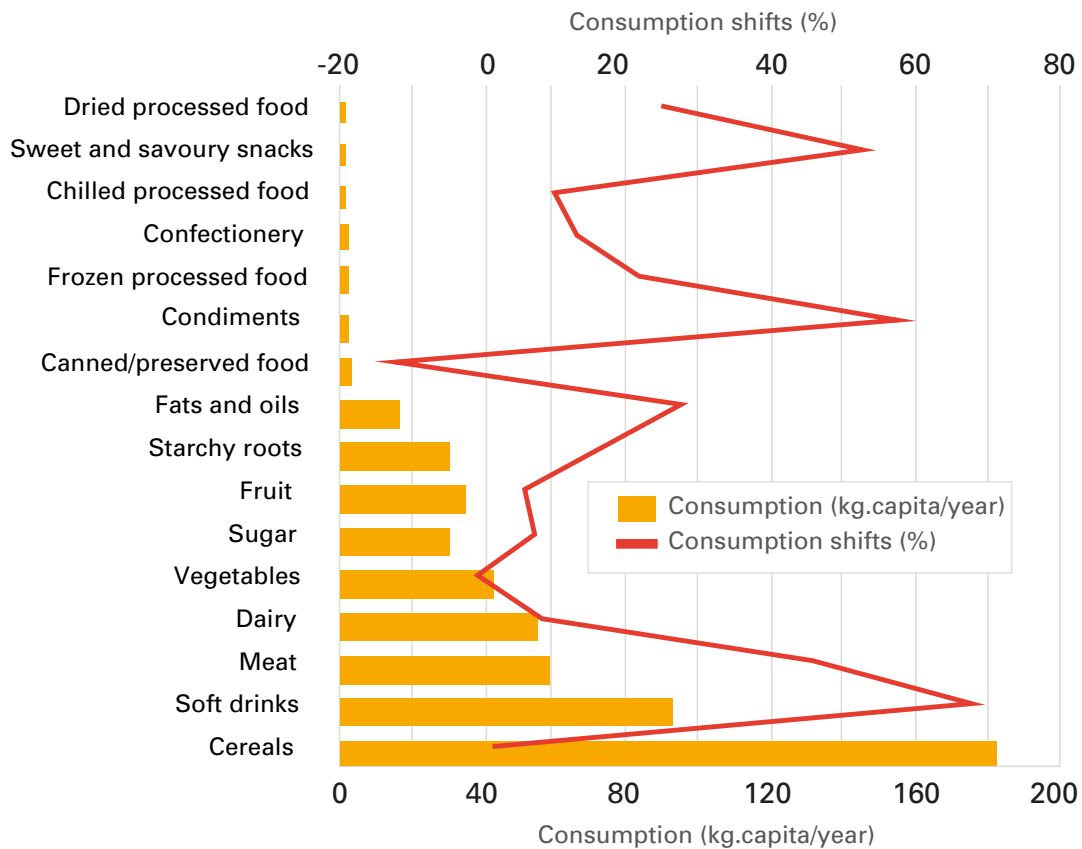


Figure 13: Per capita consumption and shifts in consumption of specific food categories in South Africa from 1994/1999 to 2009/2012 ³³

Source: FAOSTAT FBS & Euromonitor PFBC data sets



d. Physical inactivity

World Health Organization estimates for South Africa show that 38.7% of people are insufficiently active; men have higher levels of activity (47% in men vs 29% in women).^{34,35}

It was found that 57% of South African learners age 8 to 14 engaged in moderate levels of physical activity;³⁹ 31% did not meet internationally recommended amounts of moderate to vigorous physical activity.³⁶

Figure 14 shows the physical activity scores of learners by gender and province, highlighting higher physical activity in males as compared to females. However, the 2018 report card for physical activity in South Africa showed no increase in physical activity levels in children and adolescents since 2016 and insufficient measures to address this risk factor.³⁷

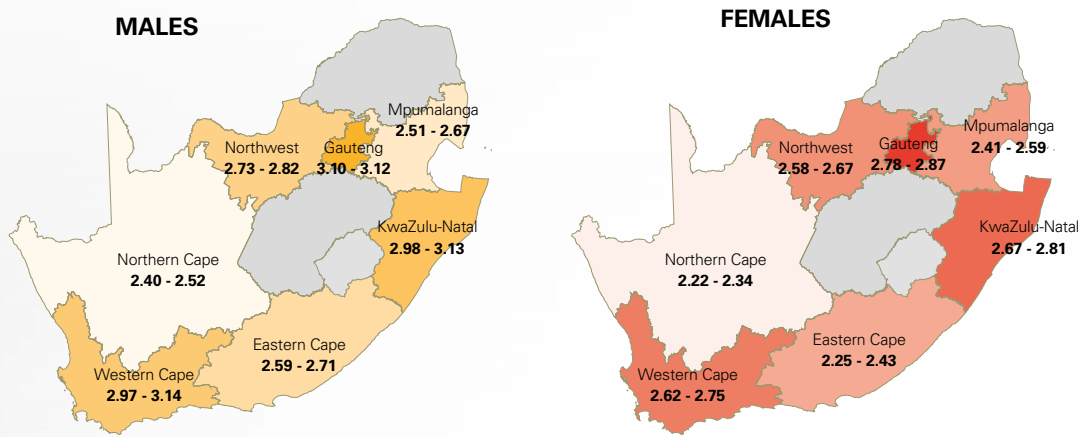


Figure 14: Physical activity scores of learners in South Africa³⁶

Source: Health Systems Trust





e. Air pollution

World Health Organization air quality guidelines state that the values for fine particulate matter (PM 2.5)ⁱⁱⁱ should be less than 10 $\mu\text{g}/\text{m}^3$ (annual mean); the 24-hour mean should not exceed 25 $\mu\text{g}/\text{m}^3$.³⁸ In South Africa, this value has been steadily increasing and is currently almost four times the acceptable standard.³⁴

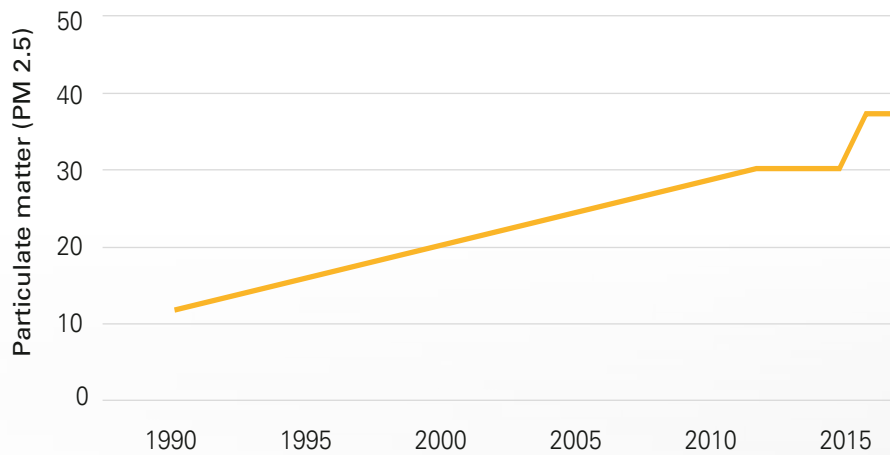


Figure 15: Air pollution levels in South Africa (1990-2015)³⁴

Source: Health Systems Trust

iii The term fine particulate matter 2.5 ($\text{PM}_{2.5}$), refers to tiny particles or droplets in the air that are 2.5 microns or less in width.



1.4 GLOBAL AND REGIONAL COMMITMENTS

Sustainable Development Goal (SDG) Target 3.4 and of the *Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013–2020* (GAP NCDs+) both aim to reduce the burden of NCDs+ on a global and national scale by 2030.^{15,39}

The SDGs, which were adopted by the Member States of the United Nations (including South Africa) in 2015, are interlinked and indivisible; improved health outcomes, including NCD+ outcomes, are key to achieving a number of the SDGs. Conversely, reaching the health goals, including NCD+ Goal 3.4, will require intensive and wide-ranging interventions not only within the overall Health Goal (Goal 3) but also in a number of other SDGs, such as Goal 1 (Poverty) and Goal 2 (Hunger) (see Figure 3 above). Furthermore, SDG 3, which aims to Ensure Healthy Lives and Promote Well-being for All at All Ages, encompasses a number of interdependent targets that need to be met simultaneously to facilitate attainment of the NCD+ Target (3.4). These include goals 3.3, 3.5, 3.6, 3.8, 3.9 and 3a-d (Figure 2 above).

Specific to NCDs+, the Global Action Plan aims to ‘reduce the preventable and avoidable burden of morbidity, mortality and disability due to non-communicable diseases by means of multi-sectoral collaboration and cooperation at national, regional and global levels’. The plan centres on six objectives and nine voluntary targets (see Appendix A), that address governance, prevention and control, as well as research and monitoring and evaluation. The plan serves as a road map and menu of policy options for coordinated and coherent action, at all levels, local to global, with a multi-stakeholder approach.

The original 4x4 approach in the Global Action Plan has been revised and is now a 5x5 approach that includes mental health as a priority, and air pollution as a priority risk factor.³⁹

1.5 NATIONAL, ORGANISATIONAL, RESPONSE AND COMMITMENT

The South African National Development Plan 2030 (NDP) published in 2013 asserts that achievement of good health lies beyond the health sector alone. It states that the social determinants of health need to be addressed as a matter of urgency, including promoting healthy behaviours and lifestyles, which will require greater inter-sectoral and inter-ministerial collaboration.⁴⁰ The national NCD+ goal for South Africa is to significantly reduce the prevalence of non-communicable chronic diseases. Although a review of the NDP reveals that the burden of NCDs+ has progressed since its development⁴¹ the NHI, HIV and disability are still the foci; the treatment and control of NCDs+ is poorly supported and there is a need to prioritise this group of conditions in South Africa.

The Medium Term Strategic Framework (MTSF) 2019–2024 acknowledges the increase in the burden of disease resulting from NCDs+, and refers in particular to diabetes, hypertension and cancers. It supports a whole-of-government approach to reduce the prevalence of NCDs+ and their risk factors, and commits to a range of health sector interventions, including to drive national wellness and healthy lifestyle campaigns to reduce the burden of disease. The MTSF also espouses an integrated, patient-centric model of care that prioritises early diagnosis, and continuity and quality of care.⁴² However, in a similar way to the NDP, it does not raise the profile of NCDs+ through the allocation of NCDs+ specific funding at a national level.

Overlapping strategies	Refers to NSP	Risk factors	Guiding principles	Strategic action areas	Implementation	Strategic objectives	Targets and monitoring
Specific communicable disease strategies							
HIV, TB, STIs	Not aligned	Some alignment	Some alignment	Some alignment	Well aligned	Well aligned	Not aligned
Population groups							
Adolescent and youth health	Not aligned	Some alignment	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned
Reduce maternal and child mortality	Not aligned	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned	Not aligned
Infant and young child feeding	Not aligned	Well aligned	Not aligned	Not aligned	Not aligned	Some alignment	Some alignment
Maternity care	Not aligned	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned	Not aligned
Operational and service delivery strategies							
Health promotion	Not aligned	Well aligned	Some alignment	Some alignment	Not aligned	Some alignment	Well aligned
Palliative care	Some alignment	Not aligned	Some alignment	Not aligned	Well aligned	Some alignment	Some alignment
Disability and rehabilitation	Not aligned	Not aligned	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned
School health	Not aligned	Not aligned	Some alignment	Not aligned	Some alignment	Not aligned	Not aligned
Integrated clinical services	Not aligned	Well aligned	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned
DoH Strategic Plan	Some alignment	Well aligned	Some alignment	Some alignment	Some alignment	Some alignment	Not aligned
Negotiated service delivery agreement	Not aligned	Some alignment	Some alignment	Not aligned	Some alignment	Some alignment	Not aligned
Adult primary care	Not aligned	Some alignment	Not aligned	Not aligned	Not aligned	Not aligned	Not aligned

■ Well aligned
 ■ Some alignment
 ■ Not aligned

Figure 16: Overlap between NCD policy and other policies within the NDoH⁴³

Within the South African health sector, the overarching context is that of National Health Insurance (NHI) and the now nascent NHI Bill and associated amendment to the Medical Schemes Act. NHI is the health financing strategy employed to accelerate progress towards UHC in South Africa, in line with SDG Goal 3.8. Its phased introduction is to be accompanied by a range of policies and health-system-strengthening initiatives designed to support the restructuring of a historically two-tiered, inequitable health system – public and private – to create a single national health system that maximises population health outcomes with the available resources.

The Presidential Health Compact¹⁴ is a key driver for the stakeholder engagement required to realise this reform and the broader goals of the NDP, and specifically acknowledges the burden of NCDs+ and the social determinants that contribute to this group of conditions. It entails activities to be undertaken by stakeholders whose work impacts on the health system, including government, health professionals and traditional health practitioners, labour and businesses, communities, academics and researchers, statutory councils and public health entities, and holds stakeholders accountable for delivering on these commitments.

The South African Government is implementing a whole-of-government approach to improve health and its determinants. This has led to the recently launched Operation Sukuma Sakhe in KwaZulu-Natal, which spells out every health-related initiative and how it links to other (non-

health-related) initiatives being implemented by the different departments and the spheres of government in the province.⁴⁴ It focuses on service delivery through partnerships between government and stakeholders. These principles are now encapsulated in the concept of District Development Plans and must form the basis for achievement of the health development outcomes highlighted in this NSP.

Additional policy interventions are needed to ensure NCDs+ are systematically addressed and to attain the NCDs+ goals. This NSP must align with all the legislative, regulatory and policy steps taken by South Africa between 2000 and 2020 to prevent NCDs+. The range of policy interventions applicable to NCDs+ (see Appendix B) include preventive interventions for NCDs+ risk factors as well as policies specific to individual disease conditions. However, a recent review of these standalone policies highlights that much work is needed to ensure policy coherence within the NCD+ policy space as well as within the broader health policy space (Figure 16), where acknowledgement and integration of the NCD+ burden will ensure a coherent health sector approach to the South African disease burden.

With regard to implementation of policy on the prevention and control of NCDs+, achievement of the goals set out in national strategic plans has been influenced by the organisational structure of the national and provincial departments of health, which creates and sustains vertical functioning of health programmes. Because NCDs+ are separate from the directorates for Health Promotion, Nutrition and Food Security, policy cohesion and implementation are ad hoc and unsustainable. Mechanisms at national, provincial and district levels are needed to support the integration of all relevant health programmes and enable cohesion.

At a health service delivery level, a number of important health system changes introduced in support of personal health care services include and benefit those with NCDs+. These are as follows:

- The Integrated Clinical Services Management Model⁴⁵ incorporates all chronic diseases (whether communicable or NCDs+) as a part of Ideal Facility initiative.⁴⁶
- Integration of NCDs+ into the Primary Health Care Service Package (2015)^{iv} (incorporating most common NCDs+ including asthma/COPD; cardiovascular disease, diabetes, mental health conditions; epilepsy, musculoskeletal disorders).
- The Essential Medicines List and associated Standard Treatment Guidelines for PHC and Hospital Services.⁴⁷
- The Centralised Chronic Medicines Dispensing and Distribution (CCMDD) model for distribution of medicine.⁴⁸

Furthermore, the 2017 NHI Workstream 2 delivered a first draft of the Service Benefits Framework and resulting National Healthcare Benefits Database, which has since been revised and expanded.^{49,50} Aligned to the IPCHS, it reflects the nature and relationship between key national service-delivery-related health policies and provides for defined clinical guideline-based care pathways for all conditions for which care is available, including NCDs+.

Finally, a number of policies and strategies in local government (e.g., water and sanitation) as well as non-health sectors are important to combating NCDs+ and provide a basis for multi-sectoral action.

^{iv} This policy is a training standard not a national clinical guideline.

1.6 MULTISECTORAL AND MULTISTAKEHOLDER ACTION

The burden of disease and associated risk factors highlighted above espouse the necessity for a whole-of-government, whole-of-society approach to ensure that health-in-all-policies is achieved and that the NCD+ burden is comprehensively addressed. The range of sectors required to address four of the five main NCD risk factors is represented in Figure 16.


SECTOR	RISK FACTORS			
				
Agriculture	✓	not applicable	✓	✓
Communication	✓	✓	✓	✓
Education	✓	✓	✓	✓
Employment	✓	✓	✓	✓
Energy	not applicable	✓	✓	✓
Environment	✓	✓	✓	✓
Finance	✓	✓	✓	✓
Food/catering	✓	✓	✓	✓
Foreign affairs	✓	✓	✓	✓
Health	✓	✓	✓	✓
Housing	✓	✓	not applicable	✓
Justice/ security	✓	✓	✓	✓
Legislature	✓	✓	✓	✓
Social welfare	✓	✓	✓	✓
Social and economic development	✓	✓	✓	✓
Sports	✓	✓	✓	✓
Tax and revenue	✓	✓	✓	✓
Trade and industry (excluding tobacco industry)	✓	✓	✓	✓
Transport	✓	✓	✓	✓
Urban planning	✓	✓	✓	✓
Youth affairs	✓	✓	✓	✓

Figure 17: Multi-sectoral action to reduce NCDs and their determinants³⁹

Because stakeholder engagement is critical to implementation of this NSP, from the design of individual interventions to their review and refinement over time, it is addressed under the first, governance-related goal of the NSP, and five associated strategic objectives and deliverables. This engagement, however, necessarily forms part of and is aligned to the broader stakeholder engagement strategy for implementation of National Health Insurance.

The extreme fragmentation among South African health sector stakeholders, both within and across the public and private sector, is well documented and requires segmentation or categorisation of stakeholders into meaningful groups and sub-groups. This will allow for the establishment of an effective, pragmatic and streamlined approach to stakeholder engagement.⁵⁰

The structure and categorisation of stakeholders in Table 1, designed for the purposes of this NSP, are likely to be revised as NHI processes undertake to define the roles of different stakeholders, strengthen their capacity and pass legislation or amendments that reclassify existing structures and classifications.^v

Table 1: Stakeholders important to the achievement of this NSP

(see Appendix C for the complete table with examples)

STAKEHOLDERS TO THE SOUTH AFRICAN HEALTH SECTOR	
Stakeholder groups	Stakeholder subgroups
Citizens	Patient and civil society organisations (not-for profit and non-government organisations – international and local, operating in service delivery and advocacy), individuals, communities.
Government departments	Health Department, Treasury, Basic Education, Social Development, Correctional Services, Agriculture, etc. (all three spheres), healthcare facilities, healthcare workers (including community-based health care workers), semi-autonomous entities of government departments, SALGA, DPME, National Planning Commission
Regulatory bodies (statutory)	Health Professions Council of South Africa (HPCSA), South African Nursing Council (SANC), etc.
Private sector: Service delivery	Healthcare practitioners, healthcare facilities (primary healthcare and hospital)
Private sector: Suppliers	Pharmaceuticals, medical devices and (health sector) consumables industries
Other professional bodies and industry associations: health sector	Labour/unions, professional societies, industry associations
Other professional bodies, industry associations, and influential corporations: Non-health sector	Industry associations, influential corporations
Other juristic persons	Road Accident Fund, Compensation Fund
Development partners (funders, policy, and advocacy organisations)	Global, government development agencies, private philanthropic
Education and research institutions	Universities (multiple), statutory research bodies
Arms of government	Executive, Judiciary, Parliament

^v Stakeholder groups and subgroups are not mutually exclusive. Individual stakeholders (e.g., individuals, bodies and organisations) may fall under multiple stakeholder groups. For example, an individual health practitioner may also be a member of a professional society, be a citizen, and operate in either the public and/or private sector. Similarly, non-health related professional bodies associated with the tobacco, food and beverage, and liquor industry are also representatives of the private sector. Certain professional bodies fulfil a regulatory function.

1.7 RATIONALE FOR ACTION

NCDs+ are a significant and growing burden on the South African population and the health sector. Any gains made by the health sector and its stakeholders may have been negatively impacted by the Covid-19 pandemic; while some effects are already apparent, many may still be seen in the future.

This NSP provides a framework for all stakeholders to increase and continue efforts to prevent and control NCDs+ as well providing guidance on efforts to build back better to augment population resilience and prepare for future pandemics.





THE NATIONAL STRATEGIC PLAN FOR NON-COMMUNICABLE DISEASES

This chapter focuses on the scope of the NSP and key elements including the vision, mission, goals and associated targets and fundamental principles of actions required to achieve them.

2.1 SCOPE OF THE NATIONAL STRATEGIC PLAN FOR NCDs+

In developing this NSP for NCDs+, we recognise the immense burden of NCDs+ on our country, our communities and our health system but most importantly the burden borne by people living with non-communicable diseases (PLWNCDs+), their families and support structures. We further acknowledge that NCDs+ comprise a large group of health conditions with a range of determinants and risk factors, sometimes shared, and requiring the full gamut of interventions, ranging from primordial prevention to rehabilitation and palliative care (Figure 17). Finally, we note the ever-growing burden of multi-morbidities, the associated complexity, and, of recent importance, the impact of Covid-19 on the health of PLWNCDs+.

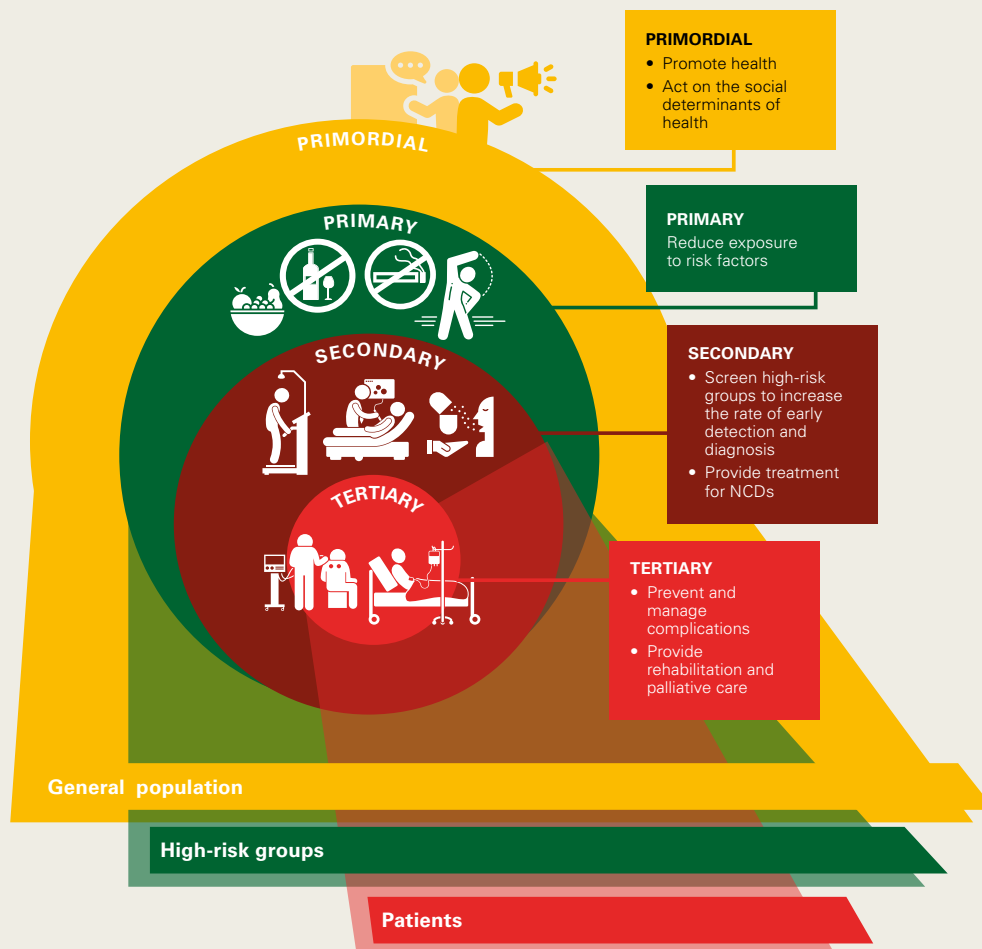


Figure 18: NCD interventions across the life course and levels of prevention

The considerations above, together with the reality of the South African economy and the challenges inherent in policy reform (in the form of the NHI) to restructure the health system, make it difficult to address these conditions with one strategy. It is important to reiterate that the intention of this NSP is neither to exclude any specific health condition nor to address every NCD+ condition in detail. Its purpose is to provide a basis for a transparent, consistent and integrated systems approach to combat the NCD+ burden and track progress for subsequent course correction.

This NSP aligns itself to the global approach of targeting the five major groups of NCDs+ (cardiovascular diseases, cancer, chronic respiratory diseases, diabetes and mental health, including neurological conditions) which have the highest morbidity and mortality rates of NCDs+. It also aligns with the five shared behavioural risk factors (tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol and air pollution). However, because it is recognised that all NCD+ conditions are of utmost public health importance, an integrated people-centred systems approach is used to ensure they receive policy attention and consideration. These NCD+ conditions include but are not limited to conditions such as chronic renal, endocrine, neurological, haematological, gastroenterological, hepatic, musculoskeletal, skin and oral diseases; genetic disorders; linked disabilities, including blindness and deafness; and violence and injuries. With respect to specific populations of PLWNCDs+, this NSP does not target any specific age group (e.g., children under 18 years) but includes these populations within the life-course approach.

Some NCDs+ have substantive 'standalone' national strategic plans that address the relevant condition specifically and comprehensively. We will refer to these policy documents in order to create functional linkage and policy coherence and to ensure revision as needed and recommended based on recent and ongoing assessments and evaluation.

With respect to risk factors and determinants of health, this NSP recognises the impact of the broader societal context on health and quality of life. NCDs+ and their risk factors also have strategic links to health systems and universal health coverage, environmental, occupational and social determinants of health, communicable diseases, maternal, child and adolescent health, reproductive health and ageing. Despite the close links, one strategic plan to address all of them in equal detail would be unwieldy and out of line with government policy and practice. Therefore, similar to the approach to NCD+ conditions highlighted above, attention to risk factors outside of the shared 5x5 model has been apportioned.

It must be highlighted, however, that there is an opportunity within the NSP to address conditions that contribute greatly to the burden of disease and use learning from other disease areas to augment our strategy to address these disease burdens. For this, we aim to learn from the successes of the HIV and TB programmes (and their 90-90-90 strategy) in order to innovate towards a cascading approach to address the burden of hypertension and diabetes, with a view to laying the foundation for the use of this approach for other disease entities within the NCDs+ burden.

Therefore, in recognition of the broad scope of NCD+ conditions, all of which are important, the scope of this NSP, although it is underpinned by the ethos of equity and 'leaving no one behind', will ensure a health system perspective alongside a people-centred approach.

At a national level, it will progress toward a whole-of-government approach by establishing a multi-sectoral commission and, within the NDoH, ensure that there is policy cohesion within the various programmes. At local levels, it will aim to strengthen health systems using an integrated, people-centred approach, thereby placing PLWNCDs+, their families and support structures at the centre of delivery of the health service package of interventions.

As such, the approach highlighted here ensures that although some of the rights enshrined in the NSP may not be achieved immediately and not every disease condition is explicitly addressed, measures have been put into place to prioritise interventions and resources in order to progressively realise SDG Goal 3.4.

2.2 VISION

The vision of the National Strategic Plan is:

A long and healthy life for all through the equitable access to prevention and control of NCDs+.

2.3 MISSION

The mission of the National Strategic Plan is:

To provide integrated, people-centred interventions, to promote health and wellness, prevention and control for South Africa through a strengthened national response to reduce avoidable and premature NCDs+ morbidity, disability and mortality within the framework of the SDGs.



2.4 AIM, GOALS, STRATEGIC OBJECTIVES AND TARGETS

The comprehensive target for South Africa, in accordance with the SDG target 3.4, is to:

Reduce, by one-third, premature mortality from NCDs+ through prevention and treatment and promote mental health and well-being by 2030.

Taking the above into account the overall aim for this NSP is to:

Progressively improve wellness and reduce premature morbidity, disability and mortality from NCDs+ through the continuum of care across the life course.

This NSP strives to achieve the nine voluntary targets and 25 indicators of the Global Action Plan (GAP) for the Prevention and Control of Non Communicable Diseases (Appendix A).⁵¹ The GAP indicators will be used to measure the extent to which South Africa has reached the targets and, ultimately, SDG 3.4.

The GAP indicators also inform the goals and strategic objectives outlined in Chapter 3, each of which will have their own set of indicators. These will be developed in conjunction with implementing stakeholders such as the provincial departments of health to inform implementation and measure how well implementation has taken place.

2.5 CASCADING APPROACH

Based on the lessons learnt from the 90-90-90 cascading approach used for HIV and AIDS, this NSP outlines a similar approach for NCDs+, starting with diabetes and hypertension. The proposed 90-60-50 cascade for diabetes and hypertension is the first step to improving early detection and treatment of NCDs+ and is as follows:

- 90% of all people over 18 will know whether or not they have raised blood pressure and/or raised blood glucose.
- 60% of people with raised blood pressure or blood glucose will receive intervention.
- 50% of people receiving interventions are controlled.

The period of this NSP will be used to develop evidence to support this model, systems to collect the data, and, ultimately, begin data collection to establish a baseline. The lessons learnt can then be applied to other NCDs+.

2.6 FOUNDATION FOR ACTION

Although actual implementation of the National Strategic Plan lies within the remit of stakeholders that include but go beyond the NDoH, clearly defined guiding principles will ensure that implementation of this NSP is underpinned by core values and principles that apply across the full burden of disease and require a robust health system. These guiding principles for action were identified as critical following a review of the *Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013–17* and are also identified as important principles in the *WHO Global Action Plan 2013–2020*. The six guiding principles are described in the table below:

Table 2: Guiding principles

Guiding principle	Context
Human rights	<p>The Bill of Rights in Chapter 2 of the Constitution lists 39 rights, apart from the right to health (Section 27) which influence the prevention and care for PLWNCDS+. These are: equality (9), dignity (10), life (11), health care, food, water and social security (27), children (28), environment (24 a) and just administrative action (33). Additionally, the constitutional values and principles governing public administration, i.e. transparency, participatory policy-making and accountability are relevant and important. This NSP aims to reinforce these rights through progressive realisation of equitable access to quality and affordable health care and interventions irrespective of ethnicity, gender, language, religion, political or health condition.</p>
Equity	<p>PLWNCDS+ experience significant inequities through financing, benefits packages and service delivery across the health sector. This NSP aims to raise the profile of NCDs+ as a priority in South Africa, through the prioritisation of NCDs+ from policy to service delivery and ensuring equitable access to NCD+ services for PLWNCDS+ and vulnerable populations therein.</p>
Universal health coverage	<p>Universal health coverage (UHC) is linked to SDG target 3.8. The South African government's commitment to UHC, through the delivery of NHI, is an important consideration in the formulation and delivery of this NSP. This NSP, developed during the health sector transition, and the implementation of NHI, endeavours to make its objectives align with the incremental achievement of UHC.</p> <p>It must be noted that the NHI policy remains in draft form, with implementation occurring in stages, many of which may take place after this NSP has expired.</p>
Integration	<p>Taking account of the structural and governance challenges that maintain siloed approaches, and while we await the completed health sector transition, this NSP embraces the spirit of working in an integrated manner across directorates and within the health sector.</p> <p>This integration occurs in various ways, including:</p> <ol style="list-style-type: none"> 1. National policy alignment 2. Multi-sectoral and multi-stakeholder engagement 3. Integration within the Department of Health 4. Integration of health-service delivery 5. Integration across health conditions <p>The critical need for integration of NCDs+ with health programmes, in health systems, across levels and continuum of care, into service delivery platforms and care pathways, and across levels of government and with sectors and stakeholders is underpinned by the IPCHS framework which provides a basis for the goals within this NSP.</p>
Engagement with and empowerment of people and communities	<p>The Ottawa Charter, Alma Ata Declaration and most recently, the IPCHS Framework all recognise how vital it is to engage with and empower individuals and communities. This NSP aims to provide individuals and communities with the opportunities, skills and resources they need to participate actively and meaningfully in their health and healthcare and ensure the co-production of health espoused by the IPCHS model.</p>
The life-course approach	<p>The life-course approach considers health as a dynamic continuum rather than a series of isolated health states and focuses on the multiple determinants that interact to affect health throughout life and across generations. The approach highlights the importance of transitions (linking each stage to the next), defining protective risk factors, prioritising investment in healthcare and social determinants of health, and gender equality and the promotion of human rights early in the life-course. Although this NSP acknowledges the importance of the first 1 000 days in addressing risk to the unborn child, the health status of the woman prior to conception presents a risk to both mother and baby and therefore requires monitoring throughout.</p>



CHAPTER THREE

GOALS AND STRATEGIC OBJECTIVES OF THE NATIONAL STRATEGIC PLAN

This chapter outlines the goals and strategic objectives that will provide a guiding framework for stakeholders responsible for the implementation of this NSP. To develop these goals and objectives, five key areas were identified in line with the overall aim of this NSP. The key areas aligned to each of the five goals below, include:

- **Governance** for NCD+ prevention and control.
- **Reduction of risk factors** including tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity.
- **Early detection and effective NCD+ management** through PHC and health systems strengthening.
- Promotion of high-quality **NCD+ research**.
- Enhanced national capacity for **NCD+ surveillance**.

As indicated earlier, this NSP acknowledges that although the National Department of Health (NDoH) is responsible for policy, strategy and overall monitoring of NCDs+, implementation of this strategy and the subsequent achievement of the overall aim and goals largely falls within the mandate of the provincial and district health services. Furthermore, because of the gaps and challenges in data collection and monitoring of NCDs+ and evaluation of NCD+ activities measures must be put in place to ensure successful implementation and monitoring of the outcomes of this NSP.

The goals and their related strategic objectives have therefore been stipulated in a way that accounts for the challenges highlighted, and the NDoH and its implementation partners can thus tailor their implementation plans according to the relevant context and resources. This chapter follows a largely qualitative approach to facilitate development of subsequent quantitative plans with rigorous data-collection activities.

Goal 1: Prioritise prevention and control of NCDs+

A whole-of-government, whole-of-society response, inclusive of health in all policies, requires a comprehensive mandate for multisectoral coordinating mechanisms, actions and accountability frameworks to develop and implement the policies necessary to prevent and control NCDs+. Furthermore, comprehensive advocacy to both government and stakeholders is required to highlight the huge burden of NCDs+ and drive investment and capacity building for this disease group as a priority for social and economic development.

Goal 1 aims to raise the profile of NCDs+ as a priority group of conditions through strengthened national NCD+ leadership, accountability, partnerships and multi-sectoral collaboration, and advocacy for action in addition to strengthening capacity for implementation.

Strategic objective	Deliverable/s
Strategic objective 1.1: Establish and build capacity towards a high-level multi-sectoral and multi-stakeholder NCDs+ mechanism for coherent policy.	<ul style="list-style-type: none"> i. Create and capacitate a multi-sectoral and multi-stakeholder mechanism that promotes NCDs+ as a priority within UHC at national, provincial and district levels.
Strategic objective 1.2: Promote and strengthen the development of cohesive policy within the NDoH and across government and sectors.	<ul style="list-style-type: none"> i. Establish all-inclusive expert groups to inform policy, guidelines and protocols. ii. Ensure inclusion of PLWNCDs+ in the National and Local Disaster Management Plans. iii. Maintain a comprehensive and cohesive list of NCDs+ to align with national and global policy as outlined in Appendix B.
Strategic objective 1.3: Support and contribute to the Ministerial Advisory Committee on Health Care Benefits and the benefits unit of the NHI fund office.	<ul style="list-style-type: none"> i. Ensure that the healthcare benefits agenda of the NHI Fund includes benefits for the prevention and control of NCDs+.
Strategic objective 1.4: Empower and engage communities and patient and civil society organisations to advocate for mitigation against risk factors and availability of NCD+ services	<ul style="list-style-type: none"> i. Establish context-specific platforms for engagement with relevant stakeholder groups at all levels.
Strategic objective 1.5: Strengthen accountability mechanisms for realisation of the NSP by all stakeholders	<ul style="list-style-type: none"> i. Support the establishment of a framework for stakeholder mapping and engagement on NSP deliverables. ii. Establish policy-cohesion mechanisms to monitor and account for proposed targets of the NSP in relation to health programmes and service providers at national, provincial and district levels.
Strategic objective 1.6: Review and mobilise sustainable resources and partnerships to support delivery of NCD+ activities	<ul style="list-style-type: none"> i. Identify, review and monitor existing and potential funding mechanisms for NCDs+. ii. Develop a protocol on the establishment of partnerships for NCD+ delivery.

Goal 2: Promote and enable health and wellness across the life course

In alignment with the 5x5 approach, reducing the levels of the five major shared and modifiable risk factors (tobacco use, unhealthy diet, physical inactivity, harmful use of alcohol and air pollution) will contribute significantly to reducing the disease burden due to NCDs+. Reducing exposure to the NCDs+ risk factors requires a life-course approach and strengthening of the capacity of individuals and populations to adopt healthier behaviours and lifestyles that foster health and well-being. Finally, it requires the engagement of non-health sectors and non-state actors to address the social and commercial determinants of health and behaviour change.

Goal 2 aims to address the main risk factors for NCDs+ through targeted health promotion and disease prevention activities.

Strategic objective	Deliverable/s
Strategic objective 2.1: Promote healthy nutrition in prioritised settings.	<ul style="list-style-type: none"> i. Implement healthy nutrition policies in workplaces, schools and early childhood development centres. ii. Support the provision of healthy food options in public institutions. iii. Undertake regular screening and awareness campaigns on obesity among children and adults.
Strategic objective 2.2: Enhance awareness on the benefits of physical activity and advocate for spaces that are conducive to physical activity.	<ul style="list-style-type: none"> i. Include awareness of the health benefits of physical activity in health-promotion campaigns. ii. Ensure multi-sectoral policy and regulations that enable urban design conducive to physical activity.
Strategic objective 2.3: Strengthen prevention and management of abuse of alcohol and other psychoactive substances.	<ul style="list-style-type: none"> i. Ensure multi-sectoral policy and regulations to strengthen prevention and management of abuse of alcohol and other psychoactive substances. ii. Develop and implement evidence-based awareness and mass media campaigns on abuse of alcohol and other psychoactive substances. iii. Integrate interventions on abuse of alcohol and other psychoactive substances into the management of NCDs+.
Strategic objective 2.4: Improve regulation of tobacco and increase awareness of health impacts of tobacco use.	<ul style="list-style-type: none"> i. Finalise and implement legislation on tobacco control. ii. Develop a multi-sectoral policy strategy on tobacco control. iii. Include age- and context-specific content on the dangers of tobacco and tobacco products in wellness campaigns.
Strategic objective 2.5: Promote environmental risk reduction and enhance public awareness of environmental, biological and occupational hazards.	<ul style="list-style-type: none"> i. Draft amendments to the environmental sections of the National Health Act. ii. Review existing national policy and implementation on reducing exposure to environmental, biological and occupational risk factors. iii. Monitor and manage indoor and outdoor air pollution. iv. Include public awareness on the impact of environmental, biological and occupational hazards on NCDs+ in wellness campaigns.

Goal 3: Ensure people living with NCDs+ (PLWNCDs+) receive integrated, people-centred health services to prevent and control NCDs+

To ensure integrated and comprehensive people-centred care, health systems must be improved according to the WHO Building Blocks.^{vi} This requires strengthening of primary healthcare (PHC) and district health services (DHS) as the platforms to deliver these critical services for NCDs+, with well-functioning referral linkages to secondary and tertiary care services including rehabilitation and palliative care services. Development and implementation of a cascade model is a realistic first step towards this goal.

Goal 3 aims to improve people-centred delivery of prevention, diagnosis, treatment, adherence, rehabilitation and palliative care services across the life course, through a health-system-strengthening approach.

Strategic objective	Deliverable/s
Strategic objective 3.1: Provide quality and affordable NCD+ services.	<ul style="list-style-type: none"> i. Conduct assessment of local context and service needs (with relevant reports). ii. Contribute to development packages of health benefits. iii. Develop plans for capacity development and training of healthcare workers (including community healthcare workers). iv. Ensure availability and affordability of safe and efficacious essential NCD+ medicines, including generics, and basic technologies. v. Ensure availability of training, equipment and consumables at facilities and for self-management. vi. Develop a plan to engage with civil society to achieve these deliverables.
Strategic objective 3.2: Develop cascades of care and streamline the continuum of care.	<ul style="list-style-type: none"> i. Develop care cascades for diabetes and hypertension. ii. Identify other priority conditions and related disorders for similar cascading. iii. Ensure availability of multi-disciplinary teams, including rehabilitation and palliative care services in all districts. iv. Strengthen referrals across the care pathway and between levels of care.
Strategic objective 3.3: Integrate NCD+ services across burden of disease and along the lifecycle.	<ul style="list-style-type: none"> i. Support and implement appropriate adult, child and adolescent communication, health literacy and behavioural initiatives, along with parent education. ii. Implement screening programmes for new-borns to measure biomarkers for NCD+ risk. iii. Include interventions to address the multi-sectoral determinants of NCDs+ in district development plans. iv. Improve district level access to NCD+ services for vulnerable groups such as older people, women and people living with disabilities. v. Empower people and communities to advocate for NCD+ services and meaningful involvement of people living with NCDs+ in the co-production of health.
Strategic objective 3.4: Accentuate clinical governance for NCDs+ at district level.	<ul style="list-style-type: none"> i. Establish district-level mechanisms to monitor clinical governance, including NCD+ clinical expert groups, clinical management teams and patient expert groups. ii. Review, revise and update existing clinical guidelines or develop new guidelines in line with the health benefits package.

vi These are: Service delivery, health workforce, health information systems, access to essential medicines, financing and leadership/governance.

Goal 4: Promote and support national capacity for high-quality research and development for the prevention and control of NCDs+

Priorities for research related to NCDs+ must be included in the national research agenda. The information and knowledge generated by this research must support efforts to mobilise resources and monitor the effectiveness of interventions.

Goal 4 aims to augment the repository of context-specific information and knowledge of NCDs+ through enhanced platforms and mechanisms for research and dissemination and use of its results.

Strategic objective	Deliverable/s
Strategic objective 4.1: Establish a platform to engage academic, research and other institutions, as well as civil society, on an appropriate national research agenda.	<ul style="list-style-type: none"> i. Establish and operationalise a platform to create a context-specific national research agenda. ii. Promote NCD+ related research across government and sectors.
Strategic objective 4.2: Create a mechanism for dissemination of research findings in an appropriate manner to relevant stakeholders.	<ul style="list-style-type: none"> i. Package and disseminate research findings to senior government managers, policy makers, stakeholders, and the NHI Fund. ii. Disseminate research findings to communities in an ethical and understandable manner. iii. Encourage establishment of demonstration sites for translation of research into practice.

Goal 5: Monitor strategic trends and determinants of NCDs+ to evaluate progress in their prevention and control

Integration of existing routine data collection, reporting and surveillance systems is necessary for better-informed priority setting and programme planning. Continuous monitoring and dissemination of knowledge related to progress towards the NCDs+ targets will provide the foundation for advocacy, policy development and coordinated action and reinforce political commitment.

Goal 5 aims to improve the data available on NCDs+ and their relevant programmes through enhanced monitoring and evaluation. Goal 5 aims to improve the data available on NCDs+ and their relevant programmes through enhanced monitoring and evaluation.

Strategic objective	Deliverable/s
Strategic objective 5.1: Strengthen capacity for monitoring, evaluation and reporting on key NCD+ indicators for reporting at global and local levels.	<ul style="list-style-type: none"> i. Develop and define data elements and indicators linked to legislative requirements, government priorities and policy imperatives. ii. Identify pilot sites for implementation of new indicators and data elements for early detection and control of diabetes and hypertension through the cascading approach. iii. Integrate key NCD+ indicators into the routine Health Management Information System (HMIS) and National Indicator Data Set (NIDS) data collection and reporting systems. iv. Promote development of integrated electronic patient data collection and reporting systems throughout the life course.
Strategic objective 5.2: Conduct baseline and periodic surveys on NCDs+ and their risk factors.	<ul style="list-style-type: none"> i. Conduct baselines surveys for hypertension and diabetes. ii. Conduct baselines surveys for other priority conditions and related disorders as identified.
Strategic objective 5.3: Implement routine and periodic surveillance of NCDs+ and their risk factors at all levels.	<ul style="list-style-type: none"> i. Include routine surveillance on NCDs+ and their risk factors in existing and proposed surveillance systems.
Strategic objective 5.4: Establish and support dissemination of NCD+ related data and knowledge to guide decision-making at national, provincial, district and sub-district levels.	<ul style="list-style-type: none"> i. Develop a publication plan, in collaboration with various stakeholders, for dissemination of data and knowledge on NCDs+.



COSTING AND FINANCING NCDs+ UNDER NHI IN SOUTH AFRICA

This chapter explores the costing and financing implications for the implementation of this NSP and advocates for investment in NCDs+ in South Africa.

4.1 The case for investment in NCDs+

Although the evidence-base is fragmented, there is no doubt that NCDs+ are a burden on individuals, health systems and countries, including South Africa. It is estimated that by 2030, the cumulative loss to the global economy through NCDs+ will be \$47 trillion (baseline 2010).⁵² Over 85% of premature deaths due to NCDs+ occur in low- and middle-income countries (LMICs); the WHO estimates that the rate of increase in the African region will be faster than the average LMIC in the next ten years. In sub-Saharan Africa, the economic burden in 2015 of diabetes alone was US\$19.45 billion, or 1.2% of cumulative gross domestic product (GDP) of the region. It is projected that if it is unchecked this cost will increase to between \$35.33 billion and \$59.32 billion by 2030.¹³

It is estimated that in South Africa the economic cost due to productivity losses arising from absenteeism, presenteeism and early retirement due to ill health, largely from NCDs+, equated to a total of 6.7% of GDP in 2015 and is expected to increase to 7.0% of GDP by 2030.⁵³ The accumulated loss to South Africa's GDP between 2006 and 2015 from diabetes, stroke and coronary heart disease is estimated to have been around R26 billion.⁵⁴

By comparison, the 2018 public-sector costs of diagnosed diabetes patients were approximately R2.7 billion, whereas, if unmet need had been addressed, that is, in both diagnosed and undiagnosed patients, the cost would have escalated to R21.8 billion.

Ultimately, NCDs+ and associated disabilities impact on individuals in terms of direct and out-of-pocket costs related to health-seeking as well as opportunity costs due to loss of productivity. In many instances, this can result in catastrophic health spend for families and households.⁵⁵

In contrast, WHO's global business case for NCDs+ shows that if LMICs put in place the most cost-effective interventions for NCDs+ (including both prevention and control), by 2030 they will see a return of \$7 per person for every dollar invested.⁵⁶ These 'best buys' reflect the value of primordial and prevention interventions as well as treatment for cardiovascular disease and diabetes. At a disease-specific level, WHO evidence shows that treatment for depression, for example, would yield USD \$5 for every one dollar spent.⁵⁷ Investing in prevention and control of NCDs+ is thus essential for growth and development and, when carefully planned and prioritised, can be highly cost effective.

In South Africa, recent research has shown that the economic benefit from targeted interventions for cardiovascular disease and diabetes are reflected in a cost-benefit ratio of 8.7 that increases to 26 once social benefits are included.⁵⁸ Rates of return on interventions for depression and anxiety together reflect cost-benefit ratios of 5.4 and 12.9 respectively.

4.2 The context: Transition to National Health Insurance (NHI) in South Africa

The phased introduction of NHI in South Africa, as a part of government's commitment to UHC, is designed to support restructuring of its historically two-tiered, inequitable health system – public and private – to create a unified national health system. The aim is to maximise population health outcomes and socio-economic impact within the available national resources and in acknowledgement of broader societal priorities. It aligns to the whole-of-government, whole-of-society approach in which all stakeholders play a defined role to coproduce health and is also particularly relevant for addressing NCDs+ that are influenced by the social and commercial determinants of health and impact negatively on society and the economy.

The NCD+ burden is currently addressed in the public sector through dedicated, funded sub-programmes for NCDs+, specifically, Health Promotion and Nutrition, Environmental Health, and Emergency Medical Services and Trauma. Additionally, commitment to dedicated conditional grants for oncology and mental health continues through the medium-term expenditure framework (MTEF) period. The majority of public funds for service delivery are, however, channelled to the provinces and calculated through the equitable share formula as per the Division of Revenue Act (DORA).

Under NHI, the health system will address issues of equity, quality, efficiency and affordability. Equity is directly addressed by a shift from the current funding model, which is based on tax contributions to the fiscus and membership of voluntary private medical aid schemes and insurance products, to mandatory prepaid contributions to an NHI fund. Grounded in the principle of social solidarity, this model enables risk cross-subsidisation between healthy and sick, rich and poor and young and old.

A range of health-system-strengthening initiatives are driving quality improvement through an integrated people-centred health services (IPCHS) approach and the explicit definition of healthcare benefits in terms of care pathways. These care pathways are grounded in a robust primary healthcare service delivery platform that includes facility and community-based services that are linked to secondary and tertiary care through defined referral patterns.

Efficiency requires engagement and analytics at all levels of the health system to identify opportunities for improved outcomes for the same investment, implement initiatives to take advantage of these opportunities and, ultimately, to track their realisation.

Affordability (and sustainability) will be addressed by checks and balances at all levels of the health system and in particular, a focus on early diagnosis and treatment at primary healthcare level; a combination of systematic scenario analysis and priority setting linked to the burden of disease emphasises health promotion and primordial and primary prevention.⁶

The importance of identifying and realising efficiencies is fundamental to any country strategy that aims to attain UHC but is that much more critical in the current South African economic and fiscal climate in which it is clear that no new funding in real terms is forthcoming through the MTEF period.⁵⁹ Therefore, any increase in coverage – whether in population or services, and whether for NCDs+ or other conditions – will only be possible through realisation of efficiencies. One possible exception specific to NCDs+ is earmarking of the tax on sugar-sweetened beverages (otherwise known as the health promotion levy) to address cross-cutting interventions associated

with health promotion. However, historically, National Treasury has steered away from the practice of earmarking; this could thus result in an equivalent down adjustment to the health budget. Ultimately, as in every country, where efficiency savings are no longer possible, difficult choices have to be made based on a defined and transparent priority-setting process that cuts across all disease burdens including NCDs+. In South Africa this process will be led at national level by the Ministerial Advisory Committee on Health Care Benefits.⁶

4.3 Establishing national capacity for costing and economic evaluations

A range of analytics at national and subnational levels as well as bi-directional information flow are required to drive implementation of NHI. Since this includes evidence on the nature and cost of healthcare benefits it is wholly dependent on the availability of data. The NDoH and nascent NHI Fund will act as stewards to coordinate establishment of national capacity for systematic, routine evidence generation related to all benefits, including those for NCDs+. Work is ongoing to establish the foundational National Health Benefits Database (NHBD) that will provide a complete list of International Classification of Diseases (ICD)-coded conditions for which care is available, their associated services as defined in national clinical practice guidelines, and the relevant patient outcomes. It will likewise reflect the average and minimum required resources to deliver these services, and the associated costs. This is key to ensuring transparency on the cost assumptions that feed into reimbursement models and rates.

The data and analytics provided by the NHBD must be grounded in the information needs of different stakeholder groups, starting with patients, clinicians and providers, and will be critical to health system planning and prioritisation by the NHI Fund. However, it will also provide a registry of healthcare benefits against which digital, patient-level data collection is rolled out under NHI. This digital strategy is central to NHI not only because it is the mechanism with which to generate evidence on the level of need across the country to which resources can be aligned but also because it will enable a shift from per-patient (per condition) costing of single conditions to models that capture multimorbidity, inform strategic purchasing, and implement value-based contracting. Effective implementation of this digital strategy will require capacity-building at subnational level for data analytics and clinical governance.

With limited resources, and in line with the recommendations of the Financial and Fiscal Commission (FFC),⁶⁰ the NHI Fund may initially focus on normative and routine costings that estimate the financial implications of a defined health benefit package, including budget allocation in the public sector, and provider payment in the private sector. Based on increasing availability of quality data on the level of need (especially point of service), these funds will incrementally replace the equitable share formula.

However, no health system operates in a static environment. As such, every national health benefit package should be routinely revised to reflect on and respond to ongoing changes in population profile (e.g., demographics, burden of disease), advances in technology and shifts in population expectations. It is in this context that the role of all national stakeholders, with their range of complimentary expertise and experience, are invaluable to informing the review of the healthcare benefits package to ensure financial sustainability and delivery of optimal population health outcomes. While the NHI Fund and supporting ministerial advisory committees will define the specific processes and roles, the following examples of stakeholder roles is provided as guidance.

4.4. Examples of anticipated national health sector stakeholder roles in costing and economic evaluation

Compared to the normative costings that the NHI Fund is best placed to generate initially, it is service providers across the public and private sector that are best placed to conduct actual costings and expenditure tracking against the norms. While these costings may support the financial management mechanisms of the service providers themselves they also provide valuable evidence with which to engage and support the NHI Fund in benefits reviews. Provider and district-level costings provide opportunities to identify context-specific efficiency savings; their dissemination will also allow for sharing of lessons learnt and realisation of broader system-level efficiencies.

Research and academic institutions across South Africa represent a crucial national resource for evidence generation, particularly in more complex economic evaluations and includes skills and capacity in health and clinical economics. The varying areas of expertise in different institutions – particular disease areas, technologies or evaluation methodologies – should be harnessed to inform a national dialogue.

A particular benefit of these analyses is that they provide a comparable analysis of the ‘return on investment’ or ‘value for money’ for different healthcare benefits as part of the health technology assessments legislated in the NHI Bill.⁶ This will further support analyses that go beyond the provider perspective to include the patient and socio-economic perspective.

4.5. Conclusion

Aligned to the objectives of NHI, a substantial amount of work in costing and economic evaluation for NCDs+ has been undertaken by various partners in recent years in addition to the work discussed above, and specific to NCDs+.

The NDoH has developed preliminary per-patient costing for every chronic disease and NCD+ defined in the South African National Standard Treatment Guidelines (2018 version) and aligned to the NHBD; an investment case for mental healthcare services for South Africa; a study projecting the cost implications of the expected increase in cancer in the next decade; cost-of-illness studies and other economic evaluations for diabetes, hypertension and obesity; and, the development of a clinical economic model for NCDs+ in selected health facilities in South Africa.

This work represents a valuable foundation and baseline from which to expand and strengthen the evidence base for increased investment in NCDs+ in South Africa. Therefore, while the work conducted to date may be fragmented, it is also indicative of the wealth of knowledge and expertise available in South Africa, which, with the support and coordination of the NDoH, can be pooled to strengthen the evidence base for funding of equitable and cost-effective interventions that address non-communicable diseases in South Africa.

IMPLEMENTATION OF THE NATIONAL STRATEGIC PLAN

This chapter provides insight into implementation of the NSP and the mechanisms needed to realise it.

5.1 Introduction

Successful implementation of any strategic plan is a major challenge because it relies on a number of factors and stakeholders. Allen et al (2019)⁶¹ used the 2015 and 2017 WHO NCD+ progress monitor reports to calculate aggregate implementation scores for 151 countries, based on their implementation of 18 WHO-recommended NCD+ policies and found that progress had been made since 2015. Although South Africa still had a number of challenges for successful implementation of its previous strategic plan, its scores improved from 36.1% in 2015 to 44% in 2017.

It is hoped that this plan will address these challenges by focussing on improving wellness and reducing premature morbidity, disability and mortality from NCDs+ through the continuum of care across the life course. Implementation of this NSP will require strengthening of leadership, accountability, capacity, multi-sectoral collaboration and partnership for prevention and control of NCDs+ as well as promotion of health and wellness across the life course by addressing the social and commercial determinants of health and behaviour changes. It is envisioned that this will reduce NCDs+ morbidity and mortality across the life course.

The responsibility for implementation of this NSP lies with the provincial departments of health (PDoH), which in turn include health districts through the district health systems. Taking this into consideration, the roles of the various levels of government as envisioned for this NSP are as follows:

- **National Department of Health:** The NDoH is responsible for development of the NSP in consultation with PDoHs and stakeholder groups. The NDoH will provide oversight and establish a national coordination mechanism and guidance for successful implementation of this plan.
- **Provincial departments of health:** The PDoHs are responsible for implementation of the plan through the district health system and must incorporate the strategic objectives of the NSP into their provincial strategic and annual performance plans. Each PDoH is expected to develop a context-specific implementation plan based on the policy and intervention options and templates attached in Appendices D and E. To this end, PDoHs will collaborate with the various stakeholders within and outside the government for development and implementation of their provincial plan, with particular attention to the private sector provider groups as they are integrated within the national referral system of the NHI.

- District health system:** Since 1995, a number of legislation, policies and guidelines have contributed to shaping the South African District Health System (DHS) in its present form. Introduction of primary healthcare (PHC) re-engineering, and the National Health Insurance (NHI) Bill, reaffirm the foundational role the DHS plays within the health system and as the vehicle through which PHC will be delivered. It further describes how contracted private service providers will be integrated into this system and coordinated through contracting units for PHC (CUPs) in order to contribute to service delivery and clinical governance. The DHS implements various health programmes through the sub-districts, which encompass a number of health facilities (PHC clinics, CHCs and hospitals) as well as other elements of PHC re-engineering. Similar to the PDoHs, each DHS is expected to incorporate the NSP strategic objectives into their district health plans. The DHS is also responsible for providing a structure to incorporate NCDs+ into the integrated district development plan and other government initiatives, such as Operation Sukuma Sakhe, based on the principle of co-operative governance and effective service delivery. This will ensure participation of other government departments as well as civil society for successful implementation of the plan at district level.

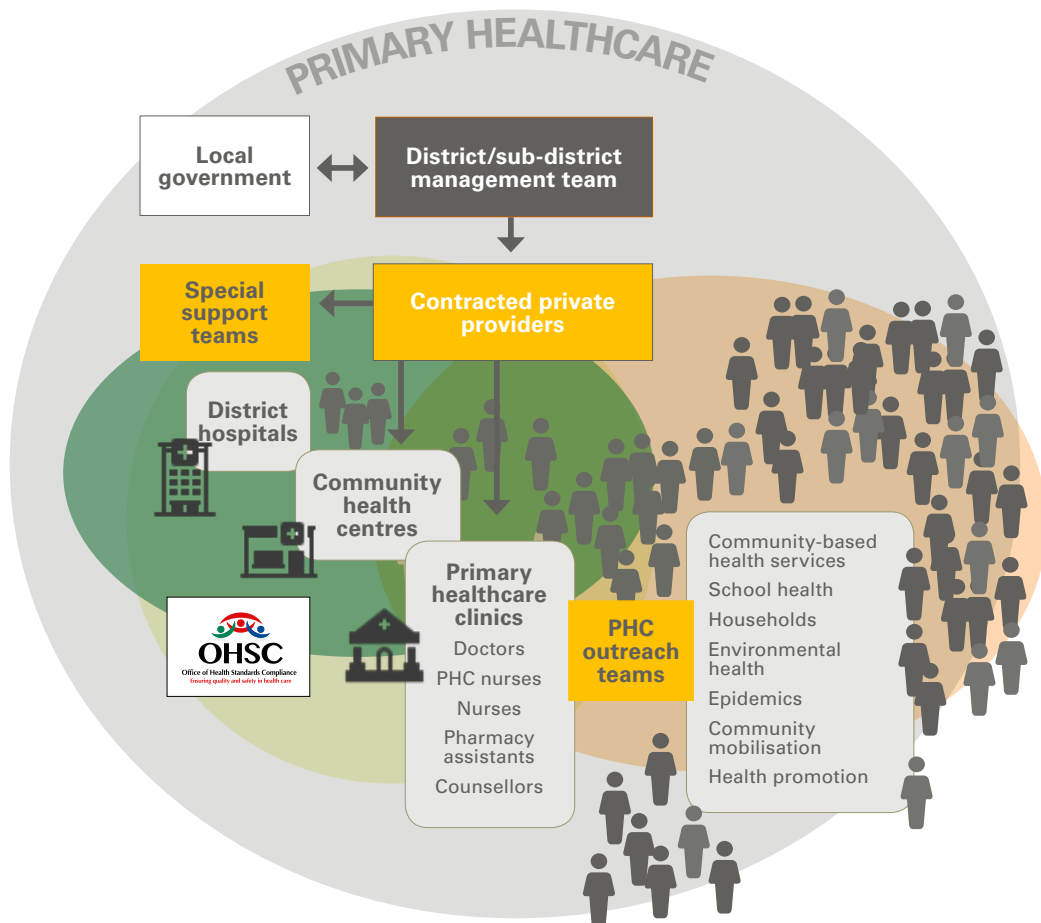


Figure 19: Re-engineering primary healthcare in South Africa

5.2 Theories and models for implementation

There are many theories and models that describe implementation; typically it involves a stepwise, cyclical process (see Figure 20). The first step is to collaborate with key stakeholders to define a specific health need and then identify an appropriate intervention to address that need. The second step is to adapt the selected intervention to the local context and undertake piloting to test the intervention. The third step is implementation of the adapted intervention. The fourth and final step is to assess if the adapted intervention can be more widely implemented or scaled up and, if it is, to define the resources and further steps required to achieve this.

In practice, the path from selection (step 1) through to scale-up (step 4) is rarely direct, because it is determined by multiple stakeholders, availability of resources and other contextual factors. It is likely to have many iterations going back and forth between two or more process steps.⁶²



Figure 20: Implementation cycle

It is envisioned that implementation partners, along with the stakeholders highlighted in Chapter 1, will harness this model to generate evidence for decision making, and provide case studies for the various strategic objectives as well as costing of these interventions.

5.3 Evaluation of this plan

Systematic evaluation of this plan through regular monitoring strategic trends and determinants of NCDs+ and evaluating progress in their prevention and control will be further supported by promotion and supporting national capacity for high-quality research and development for the prevention and control of NCDs+. This plan lays the foundation for development of provincial and district operational plans for NCDs+ in line with provincial annual performance plans (APPs) and the annual district health plans (DHPs). These documents will be developed in a sequential manner through coordination among NDOH, PDoHs and districts as described below:

TABLE 3: PROPOSED TIMELINE FOR IMPLEMENTATION

Activity	Responsible	Time-frame	
National Strategic Plan for the Prevention and Control on Non-Communicable Diseases 2022 – 2027 approved	NDoH	2022	
Nine provincial implementation plans developed and implemented by provinces with support from technical partners and stakeholders	Workshops with all nine provinces on implementation plans and M&E framework	NDoH, PDoH	Q1 2022
	Nine provinces commence developing of plans with stakeholders and technical support from partners	PDoH, DHS, stakeholders	Q2 2022
	Four provinces report on progress on implementation of provincial plans	PDoHs	Q3 2022
	Five provinces report on progress on implementation of provincial plans	PDoHs	Q4 2023
Monitoring and evaluation	Monitoring of implementation of nine plans with ongoing review and response	DHS, PDoH, NDoH, relevant partners and stakeholders.	Ongoing

REFERENCES

1. World Health Organization. Tackling NCDs: 'Best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. World Health Organization. 2017.
2. Lawal AK, Rotter T, Kinsman L, Machotta A, Ronellenfisch U, Scott SD, et al. What is a clinical pathway? Refinement of an operational definition to identify clinical pathway studies for a Cochrane systematic review. *BMC medicine*. 2016;14(1):1–5.
3. World Health Organization. Health in all policies: Helsinki statement. Framework for country action. World Health Organization. 2014.
4. World Health Organization. WHO Framework on Integrated Person Centered Health Services. Geneva: World Health Organization. 2019.
5. World Health Organization. Country cooperation strategy. World Health Organization. 2005.
6. South African Government. National Health Insurance Bill. 2019.
7. Universal Health Coverage [Internet]. [cited 2021 Aug 14]. Available from: <https://www.who.int/westernpacific/health-topics/universal-health-coverage>
8. World Health Organization. 68th World Health Assembly: Contributing to social and economic development: sustainable action across sectors to improve health and health equity (follow-up of the 8th Global Conference on Health Promotion). World Health Organization. May 2015.
9. World Health Organization. Time to deliver: report of the WHO independent high-level commission on noncommunicable diseases. World Health Organization. 2018.
10. World Health Organization. Preparation for the third High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases, to be held in 2018. World Health Organization. December 2017.
11. International Union for Health Promotion and Education. Beating NCDs equitably – ten system requirements for health promotion and the primary prevention of NCDs [Internet]. 2018.
12. United Nations General Assembly. Political declaration of the third high-level meeting of the General Assembly on the prevention and control of non-communicable diseases. Resolution adopted by the General Assembly October. 2018.
13. Atun R, Davies JI, Gale EA, Bärnighausen T, Beran D, Kengne AP, et al. Diabetes in sub-Saharan Africa: from clinical care to health policy. *The Lancet Diabetes & Endocrinology*. 2017;5(8):622–67.
14. South African Government. Strengthening the South African health system towards an integrated and unified health system. Presidential Health Summit Compact. 2019 Jul.
15. United Nations General Assembly. Transforming our world: the 2030 agenda for sustainable development, 21 October 2015. A/RES/70/1; 2015.
16. NCD Alliance. NCD+s across the SDGs: A call for an integrated approach. [Internet]. 2017. Available from: <http://bit.ly/2WDVKHU>
17. World Health Organization. Noncommunicable diseases. Fact sheet. World Health Organization, Geneva. <http://www.who.int/mediacentre/factsheets/fs355/en/> Accessed. 2017;23.

18. WHO | Regional Office for Africa. [cited 2021 Aug 15]. Noncommunicable Diseases [Internet]. Available from: <https://www.afro.who.int/health-topics/noncommunicable-diseases>.
19. Statistics South Africa. Mortality and causes of death in South Africa: Findings from death notification. 2018. Stats SA Pretoria; 2021.
20. World Health Organization. Noncommunicable diseases country profiles 2018 [Internet]. World Health Organization; 2018 [cited 2021 Aug 15]. 223 p. Available from: <https://apps.who.int/iris/handle/10665/274512>
21. Institute for Health Metrics and Evaluation. 2015 [cited 2021 Aug 15]. Available from: <http://www.healthdata.org/south-africa>
22. Van Heerden A, Barnabas RV, Norris SA, Micklesfield LK, van Rooyen H, Celum C. High prevalence of HIV and non communicable disease (NCD) risk factors in rural KwaZulu Natal, South Africa. *Journal of the International AIDS Society*. 2017;20(2):e25012.
23. Oni T, Youngblood E, Boulle A, McGrath N, Wilkinson RJ, Levitt NS. Patterns of HIV, TB, and non-communicable disease multi-morbidity in peri-urban South Africa-a cross sectional study. *BMC infectious diseases*. 2015;15(1):1–8.
24. Statistics South Africa. 2020 Mid-year population estimates | Statistics South Africa [Internet]. [cited 2021 Aug 15]. Available from: <http://www.statssa.gov.za/?p=13453>
25. Dicker D, Bettini S, Farpour-Lambert N, Frühbeck G, Golan R, Goossens G, et al. Obesity and COVID-19: the two sides of the coin. *Obesity facts*. 2020;13(4):430–8.
26. Blumberg L, Jassat W, Mendelson M, Cohen C. The COVID-19 crisis in South Africa: Protecting the vulnerable. *South African Medical Journal*. 2020;110(9):825–6.
27. Cowper B, Jassat W, Pretorius P, Geffen L, Legodu C, Singh S, et al. COVID-19 in long-term care facilities in South Africa: No time for complacency. *South African Medical Journal*. 2020;110(9):0–0.
28. World Health Organization. Responding to non-communicable diseases during and beyond the COVID-19 pandemic: state of the evidence on COVID-19 and non-communicable diseases: a policy brief. World Health Organization; 2020.
29. World Health Organization. Genomics and world health: report of the Advisory Committee on Health Research. World Health Organization; 2002.
30. National Department of Health (NDoH), Statistics South Africa (Stats SA), South African Medical Research Council (SAMRC), and ICF. South Africa Demographic and Health Survey 2016. [Internet]. Pretoria, South Africa, and Rockville, Maryland, USA: NDoH, Stats SA, SAMRC, and ICF.; Available from: <https://dhsprogram.com/pubs/pdf/FR337/FR337.pdf>
31. World Health Organization. Global status report on alcohol and health 2018. World Health Organization. 2019.
32. Alcohol abuse and Covid-19: Two colliding epidemics – government must act now to reduce the momentum [Internet]. South African Medical Research Council. 2020 [cited 2021 Aug 15]. Available from: <https://www.samrc.ac.za/news/alcohol-abuse-and-covid-19-two-colliding-epidemics-government-must-act-now-reduce-momentum>
33. Ronquest-Ross L-C, Vink N, Sigge GO. Food consumption changes in South Africa since 1994. *South African Journal of Science*. 2015;111(9–10):01–12.

34. Health Systems Trust [Internet]. [cited 2021 Aug 15]. Available from: <https://www.hst.org.za:443/healthindicators>
35. Guthold R, Stevens GA, Riley LM, Bull FC. Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1·9 million participants. *The Lancet Global Health*. 2018;6(10):e1077–86.
36. Van Biljon A, McKune AJ, DuBose KD, Kolanisi U, Semple SJ. Physical activity levels in urban-based South African learners: A cross-sectional study of 7 348 participants. *South African Medical Journal*. 2018;108(2):126–31.
37. Draper CE, Tomaz SA, Bassett SH, Burnett C, Christie CJ, Cozett C, et al. Results from South Africa's 2018 report card on physical activity for children and youth. *Journal of Physical Activity and Health*. 2018;15(s2):S406–8.
38. Ambient (outdoor) air pollution [Internet]. [cited 2021 Aug 15]. Available from: [https://www.who.int/news-room/fact-sheets/detail/ambient-\(outdoor\)-air-quality-and-health](https://www.who.int/news-room/fact-sheets/detail/ambient-(outdoor)-air-quality-and-health)
39. World Health Organization. WHO Global NCD Action Plan 2013-2020 [Internet]. Geneva: World Health Organization. 2013.
40. National Planning Commission. National Development Plan 2030: Our Future – Make it work (2012). 2015.
41. National Planning Commission. A review of the National Development Plan 2030: Advancing implementation towards a more capable nation [Internet]. National Planning Commission; Available from: <https://www.nationalplanningcommission.org.za/assets/Documents/NDP%20REVIEW.pdf>
42. Department of Planning, Monitoring and Evaluation. Medium Term Strategic Framework 2019–2024 [Internet]. Available from: https://www.dpme.gov.za/keyfocusareas/outcomesSite/MTSF_2019_2024/2019-2024%20MTSF%20Comprehensive%20Document.pdf
43. Better Health Programme South Africa. Assessment of alignment of individual NCD and other strategies against the Draft South Africa National Strategic Plan for the Prevention and Control of Noncommunicable Disease (2020–2025). 2021 Feb.
44. KwaZulu-Natal Provincial Government. Operation Sukuma Sakhe: Operations Handbook [Internet]. Available from: https://pdf.usaid.gov/pdf_docs/PA00M5GM.pdf
45. National Department of Health. Integrated Clinical Services Management (ICSM). National Department of Health.
46. National Department Of Health. Ideal Clinic South Africa [Internet]. Available from: <https://www.idealhealthfacility.org.za/>
47. National Department Of Health. Standard Treatment Guidelines And Essential Medicines List For South Africa: Primary Health Care Level, 2018 Edition. National Department Of Health, 2018.
48. CCMDD | Get Checked Go Collect | Free Chronic Medication [Internet]. Get Checked Go Collect. [cited 2021 Aug 15]. Available from: <https://getcheckedgocollect.org.za/ccmdd/>
49. National Department Of Health. National Health Act: Terms of reference for the National Health Insurance Work Streams. December 2015.
50. Chalkidou K, Tucker J-M, Pillay Y. Establishing the NHI Service Benefits Framework: lessons learnt and stakeholder engagement. *South African Health Review*. 2019;2019(1):43–53.

51. NCD Global Monitoring Framework [Internet]. [cited 2021 Aug 15]. Available from: <https://www.who.int/teams/ncds/surveillance/monitoring-capacity/gmf>
52. Bloom DE, Cafiero E, Jané-Llopis E, Abrahams-Gessel S, Bloom LR, Fathima S, et al. The global economic burden of noncommunicable diseases. Program on the Global Demography of Aging. 2012.
53. Rasmussen B, Sweeny K, Sheehan P. Economic costs of absenteeism, presenteeism and early retirement due to ill health: A focus on South Africa. Report to the US Chamber of Commerce. 2017.
54. Abegunde DO, Mathers CD, Adam T, Ortegón M, Strong K. The burden and costs of chronic diseases in low-income and middle-income countries. *The Lancet*. 2007;370(9603):1929–38.
55. Murphy A, Palafox B, Walli-Attaei M, Powell-Jackson T, Rangarajan S, Alhabib KF, et al. The household economic burden of non-communicable diseases in 18 countries. *BMJ Global Health*. 2020;5(2):e002040.
56. Bertram MY, Sweeny K, Lauer JA, Chisholm D, Sheehan P, Rasmussen B, et al. Investing in non-communicable diseases: an estimation of the return on investment for prevention and treatment services. *The Lancet*. 2018;391(10134):2071–8.
57. World Health Organization. Investing in mental health: evidence for action [Internet]. World Health Organization; 2013 [cited 2021 Aug 15]. 32 p. Available from: <https://apps.who.int/iris/handle/10665/87232>
58. Rasmussen B, Sweeny K, Welsh A, Kumnick M, Reeve M, Dayal P. Increasing Social and Economic Benefits Globally: Rates of Return on Health Investments. 2020.
59. South African National Treasury. Medium Term Budget Policy Statement 2020. South African National Treasury; 2020.
60. South African National Treasury. Explanatory memorandum to the division of revenue. South African National Treasury; 2021.
61. Allen LN, Nicholson BD, Yeung BY, Goiana-da-Silva F. Implementation of non-communicable disease policies: a geopolitical analysis of 151 countries. *The Lancet Global Health*. 2020 Jan 1;8(1):e50-8.
62. World Health Organization. A guide to implementation research in the prevention and control of noncommunicable diseases. 2016.

APPENDIX A

WHO NCDs+ TARGETS AND INDICATORS 2013-2025 INDICATORS

WHO Framework element	Target	Indicators
MORTALITY AND MORBIDITY		
Premature mortality from NCD+	A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases	1. Unconditional probability of dying between ages of 30 and 70 from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases
Additional indicator		2. Cancer incidence, by type of cancer, per 100 000 population
BEHAVIOURAL RISK FACTORS		
Harmful use of alcohol	At least 10% relative reduction in the harmful use of alcohol, as appropriate, within the national context	3. Total (recorded and unrecorded) alcohol per capita (aged 15+ years old) consumption within a calendar year in litres of pure alcohol, as appropriate, within the national context 4. Age-standardised prevalence of heavy episodic drinking among adolescents and adults, as appropriate, within the national context 5. Alcohol-related morbidity and mortality among adolescents and adults, as appropriate, within the national context
Physical inactivity	A 10% relative reduction in prevalence of insufficient physical activity	6. Prevalence of insufficiently physically active adolescents, defined as less than 60 minutes of moderate to vigorous intensity activity daily 7. Age-standardised prevalence of insufficiently physically active persons aged 18+ years (defined as less than 150 minutes of moderate-intensity activity per week, or equivalent)
Salt/sodium intake	A 30% relative reduction in mean population intake of salt/sodium	8. Age-standardised mean population intake of salt (sodium chloride) per day in grams, in persons aged 18+ years

WHO Framework element	Target	Indicators
Tobacco use	A 30% relative reduction in prevalence of current tobacco use, in persons aged 15+ years	<p>9. Prevalence of current tobacco use among adolescents</p> <p>10. Age-standardised prevalence of current tobacco use, among persons aged 18+ years</p>
BIOLOGICAL RISK FACTORS		
Raised blood pressure	A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances	11. Age-standardized prevalence of raised blood pressure among persons aged 18+ years (defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg) and mean systolic blood pressure
Diabetes and obesity	Halt the rise in diabetes and obesity	<p>12. Age-standardised prevalence of raised blood glucose/ diabetes among persons aged 18+ years (defined as fasting plasma glucose concentration ≥ 7.0 mmol/l (126 mg/dl) or on medication for raised blood glucose)</p> <p>13. Prevalence of overweight and obesity in adolescents (defined according to the WHO growth reference for school-aged children and adolescents, overweight – one standard deviation body mass index for age and sex, and obese – two standard deviations body mass index for age and sex)</p> <p>14. Age-standardised prevalence of overweight and obesity in persons aged 18+ years (defined as body mass index ≥ 25 kg/m² for overweight and body mass index ≥ 30 kg/m² for obesity)</p>
Additional indicators		<p>15. Age-standardised mean proportion of total energy intake from saturated fatty acids in persons aged 18+ years</p> <p>16. Age-standardised prevalence of persons (aged 18+ years) consuming less than five total servings (400 grams) of fruit and vegetables per day</p> <p>17. Age-standardised prevalence of raised total cholesterol among persons aged 18+ years (defined as total cholesterol ≥ 5.0 mmol/l or 190 mg/dl); and mean total cholesterol concentration</p>
NATIONAL SYSTEMS RESPONSE		
Drug therapy to prevent heart attacks and strokes	At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	18. Proportion of eligible persons (defined as aged 40 years and older with a 10-year cardiovascular risk $\geq 30\%$, including those with existing cardiovascular disease) receiving drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes

WHO Framework element	Target	Indicators
Essential NCD+ medicines and basic technologies to treat major NCD+	An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major NCD+ in both public and private facilities	19. Availability and affordability of quality, safe and efficacious essential NCD+ medicines, including generics, and basic technologies in both public and private facilities
		20. Access to palliative care assessed by morphine-equivalent consumption of strong opioid analgesics (excluding methadone) per death from cancer
Additional indicators		
21. Adoption of national policies that limit saturated fatty acids and virtually eliminate partially hydrogenated vegetable oils in the food supply, as appropriate, within the national context and national programmes		
22. Availability, as appropriate, if cost-effective and affordable, of vaccines against human papillomavirus, according to national programmes and policies		
23. Policies to reduce the impact on children of marketing of foods and non-alcoholic beverages high in saturated fats, trans-fatty acids, free sugars, or salt		
24. Vaccination coverage against hepatitis B virus monitored by number of third doses of Hep-B vaccine (HepB3) administered to infants		
25. Proportion of women between the ages of 30–49 screened for cervical cancer at least once, or more often, and for lower or higher age groups according to national programmes or policies		

APPENDIX B

LIST OF RELEVANT
ACTS AND POLICIES

Acts and policies	Year
FOOD AND NUTRITION	
Foodstuffs, cosmetics and disinfectants Act, 1972 2007. Amended 2008	2008
Regulations relating to health messages on container labels of alcoholic beverages.	2008
Regulations R146: Labelling & advertising of foodstuffs	2010
Regulations R127 relating to trans-fats in foodstuffs	2011
Regulations R991 relating to foodstuffs for infants and young children	2012
Regulations relating the labelling and advertising of foods	2012
Regulation on reduction of sodium in 13 categories of foodstuffs that are the most common source of sodium	2013 (amended 2017)
Regulations R214 relating to reduction of sodium in certain foodstuffs and related matters	2013
Roadmap for nutrition in SA 2013–2017	2013
Infant and Young Child Feeding Policy	2013
Draft regulations R429: labelling & advertising of foods	2014
Draft guidelines for Draft R429 to explain and assist compliance	2014
National Adolescent and Youth Health Policy	2017
Replaced by the National Food and Nutrition Security Plan 2018–2023	2018
A levy on sugar sweetened beverages (Health promotion levy)	2018
ALCOHOL AND SUBSTANCE ABUSE	
Mini drug master plan 2011/12-2013/14.	2011
Liquor Bill (2016)	2016
Regulations regarding warning labels on alcohol products	2017
TOBACCO	
Tobacco Products Control Act No 83 of 1993, (as amended)	1993
Tobacco Products control Amendment 2007	2007
Draft Control of Tobacco Products and Electronic Delivery Systems Bill	2018
CANCER AND PALLIATIVE CARE	
National guideline on testing for prostate cancer at primary level and hospital level	2003
National guideline: palliative care for adults – a guide for health professionals in SA	2003
National guideline: a guide for health care personnel in paediatric palliative care	2005
Regulation on the compulsory registration of cancer	2011

Acts and policies	Year
National Cancer Strategic Framework 2017-2022	2017
Cervical cancer policy (2017)	2017
Breast cancer policy (2017)	2017
National Policy Framework and Strategy on Palliative Care 2017-2022	2017
DIABETES AND CARDIOVASCULAR DISEASES	
National guidelines on primary prevention and prophylaxis of rheumatic fever and rheumatic heart disease for health professions	1997
Management of T2DM in adults at primary care level	2014
Updated Management of T2DM in adults at primary care level	2017
EYE HEALTH	
National guideline on management and control of eye conditions at primary level	2000
Guidelines for cataract surgery in SA	2001
National guideline: prevention of blindness in SA	2002
National guideline: refractive errors screening for persons 60 years and older	2004
Refractive errors screening guideline for school children	2008
DISABILITY RELATED	
National rehabilitation policy	2000
Recommended minimum criteria to improve access to health care facilities	2002
Standardisation of provision of assistive devices in SA 2003	2003
Framework and Strategy for Disability and Rehabilitation Services in South Africa 2015-2020	2015
MENTAL HEALTH AND NEUROLOGY	
Mental health policy guidelines	1977
Norms manual for severe psychiatric conditions	2000
Mental health care act (17) 2002 and its regulations	2005
Child and adolescent mental health policy guidelines	2005
Mental health review board orientation guideline and manual	2007
Electro-convulsive therapy (ECT) guidelines.	2011
National mental health policy framework & strategic plan 2013-2020	2013
ORAL HEALTH	
National norms and standards for secondary and specialised oral health care	2006
National norms, standards and practice guidelines for primary oral health care	2007
National oral health strategy	

Acts and policies	Year
RESPIRATORY CONDITIONS	
Guideline for the management of acute asthma in adults	2013
Air Quality Act, 2004 (Act No. 39)	2004
NCD RELATED	
National health promotion policy & strategy 2015-2019	2015
Strategic plan for the prevention & control of obesity in SA 2015-2020	2015
HEALTH RELATED	
Pharmacy Act 53 of 1974	1974
Health Professions Act 56 of 1974	1974
Allied Health Professions Act 63 of 1982	1982
National guidelines on primary prevention and prophylaxis of rheumatic fever and rheumatic heart disease for health professions	1997
Medical Schemes Act 131 of 1998	1998
Nursing Act 33 of 2005	2005
Medicines and Related Substances Amendment Act 72 of 2008	2008
Consumer Protection Act	2008
National core standards for health establishments in SA	2011
National strategic plan for nurse education, training and practice 2012-2017	2013
National consolidates guidelines for the prevention of mother to child transmission (PMTCT) of HIV and the management of HIV in children, adolescents and adults	2014
National complaints management protocol for the public health sector in SA	2014
National HIV counselling and testing policy guidelines	2015
Adherence guidelines for HIV, TB and NCDs: Policy and service delivery guidelines for linkage to care, adherence to treatment and retention in care	2016
Guidelines for Maternity Care in South Africa	2016
Chronic illness in school policy draft	2017
South African AMR Strategy Framework 2017-2024	2017
National strategic plan for HIV, TB., STIs 2017-2022	2017
Ideal Hospital Realisation and Maintenance Framework (ICRM) draft	2018
National Quality Improvement Plan (NQIP) draft	2018
National Health Insurance Bill	2019
National Infection Prevention and Control Strategic Framework 37	2020
Practical manual for implementation of the national infection prevention & control strategic framework downloaded	2020

APPENDIX C

STAKEHOLDERS TO THE SOUTH AFRICAN HEALTH SECTOR

STAKEHOLDERS TO THE SOUTH AFRICAN HEALTH SECTOR

Stakeholder groups	Stakeholder subgroups	Individual stakeholder examples
Citizens	Patient and civil society organisations (not-for profit and non-government organisations – international and local, operating in service delivery and advocacy), individuals, communities	South African Non-communicable Disease Alliance (SANCUDA), the Health Living Alliance (HEALA), the Cancer Association of South Africa (CANSA), Section 27, South African NGO Coalition (SANGOCO), South African Council of Churches (SACOC), Centre for Early Childhood Development (CECD), etc.
Government departments: health	Health, (all three spheres), healthcare facilities, healthcare workers (including community-based healthcare workers), semi-autonomous entities of government departments	National Department of Health, all provincial departments of health, district departments of health, municipalities, clinics, community health centres, district, regional, tertiary, quaternary, and specialised hospitals, South African Health Products Agency (SAHPRA), National Health Laboratories Services (NHLS), National Institute of Communicable Diseases (NICD)
Government departments: non-health	Treasury, Basic Education, Social Development, Correctional Services, semi-autonomous entities of government departments etc.	Transport, Employment and Labour, Water and Sanitation, Women, Youth and Persons with Disabilities, Sports, Arts and Culture, Social Development, etc.
Regulatory bodies (Statutory)	N/A	Office of Health Standards Compliance (OHSC), Council for Medical Schemes (CMS), Health Professional Council of South Africa (HPCSA), the Allied Health Professionals Council of South African (AHPCSA), the South African Nursing Council (SANC), the South African Pharmacy Council (SAPC), the Dental Technicians' Council, the National Health Research Ethics Council, Health Ombudsman
Other juristic persons	Road Accident Fund, Compensation Fund	N/A
Private sector: Funders	Medical schemes, healthcare insurers, administrators and managed care organisations, brokers, corporate social responsibility arms of private multinationals and local business, etc.	DHMS, GEMS, Bonitas Discovery Health Limited, Medscheme, etc.
Private sector: Service delivery	Health care practitioners, Health care facilities (PHC and Hospital)	Life Healthcare, Netcare, Mediclinic, Clinix, etc.
Private sector: Suppliers	Pharmaceutical, Medical device, and (Health sector) Consumables industries	Pfizer, Bayer, Astra Zeneca (pharmaceuticals); Sinapi Biomedical, CapeRay, Centre for Rapid Prototyping and Manufacturing (CRPM), etc. (medical devices); 4SA Medical supplies, etc. (consumables)
Other professional bodies and industry associations: health sector	Labour and unions, professional society, industry associations	Democratic Nursing Organisation of South Africa (DANOSA), etc. (Union); South African Society of Occupational Medicine (SASOM), etc. (Professional society); South African Medical, South African Medical Technology Industry Association (SAMED), Board of Healthcare Funders (BHF), Hospital Association of South Africa (HASA), National Hospital Network (NHN), etc. (Industry Associations)

STAKEHOLDERS TO THE SOUTH AFRICAN HEALTH SECTOR

Stakeholder groups	Stakeholder subgroups	Individual stakeholder examples
Other professional bodies, industry associations, and influential corporations: non-health sector	Industry associations, influential corporations	Beverage Association of South Africa (BEVSA), South African Sugar Association (SASA), etc. (Industry Associations); Coca Cola, Tiger Brands, Nestle, Clover, etc. (Influential Corporations)
Development partners (funders, policy, and advocacy organisations)	Global, government development agencies, private philanthropic	United Nations Agencies including the World Health Organisation (WHO), Global Fund for HIV, TB and Malaria, etc. (Global); United States Agency for International Development (USAID), United Kingdom Aid (Ukaid), etc. (Government development agency); Bill and Melinda Gates Foundation (BMGF), Open Society Foundation, Buffet Foundation, etc.
Education and research institutions	Universities (multiple), Statutory research bodies	Universities of Cape Town, University of Pretoria, WITS (universities); Medical Research Council, Statistics South Africa, Human Sciences Research Council, Council for Scientific and Industrial Research, etc. (statutory research bodies)
Arms of government	Executive, Judiciary, Parliament	N/A

APPENDIX D

POLICY AND IMPLEMENTATION OPTIONS FOR CONSIDERATION WHEN DEVELOPING PROVINCIAL AND DISTRICT IMPLEMENTATION PLANS

Goal 1: Prioritise the prevention and control of NCDs+

- Formulate a framework to engage private and other sectors to collaborate on service delivery
- Formulate a framework to promote civil society and community engagement at national, provincial and district levels
- Operationalise and monitor the prioritisation of NCD++ services based on population need
- Identify and quantify existing funding mechanisms
- Develop protocols to inform development of and monitoring implementation of business plans for grants and levies

Goal 2: Promote and enable health and wellness across the life course

- Incorporate healthy eating practices as part of obesity prevention and management in employee wellness programmes – from the Obesity Strategy
- Develop dietary guidelines for prevention and control of obesity – also from Obesity Strategy
- Physical activity virtual sessions, videos or theoretical and practical guidance sessions
- Physical activity urban design advocacy sessions
- Improve health education and access to physical activity facilities in communities
- Integrate alcohol into NCD+ public awareness and mass media campaigns
- Integrate alcohol abuse in the management of NCD+
- Development of the of the Tobacco Control Implementation Strategy
- Domestic Air Quality guidelines finalised for implementation
- Monitoring of indoor air quality
- Capacity building of implementers in province and districts
- Deploying change agents in the districts
- Education and awareness on indoor and outdoor pollution mitigation and adaptation options
- Establishment and quarterly meeting of National Lead Exposure Prevention Working Group
- Development of quarterly implementation plans
- Undertake awareness campaigns on healthy food options with the aim to capacitate communities to scale awareness efforts whilst enabling self-management
- Undertake awareness campaigns on the benefits of physical activity on health promotion campaigns to capacitate communities to scale awareness efforts whilst enabling self-management
- Establish multi-sectoral partnerships for home-, community-, school- and health-institution-based food gardens to strengthen food security
- Ensure the promotion of physical activity in the package of care for PLWNCDs++
- Ensure participation in physical activity (structured and unstructured) at schools

Goal 3: Ensure PLWNCDs++ receive integrated people-centred health services to prevent and control NCDs+

- Undertake a local health needs assessment based on existing disease patterns, socioeconomic context, service utilisation and available resources for NCDs+
- Develop comprehensive packaging of services for all population groups defined by means of a participatory and transparent process with a focus on PHC services
- Strengthen development of community-level services through community-level workers including integrated school health programmes, community health workers and traditional health practitioners
- Strengthen availability, capacity building and reorientation of human resources
- Strengthen access to essential medicines and consumables
- Implement a point-of-care testing approach where possible and appropriate
- Develop care pathways with referral and counter-referral systems, improved care transition and team-based care
- Enable and strengthen self-management
- Ensure and strengthen gender-, culture- and age-sensitive services
- Enable and strengthen outreach programmes for disadvantaged and marginalised populations that may not receive effective coverage due to sociodemographic factors
- Promote and strengthen shielding and protection programmes for vulnerable groups
- Develop and implement regular, integrated and defined processes for clinical governance
- Ensure alignment between policies, guidelines (including clinical) and resources
- Establish mechanisms for clinical governance including NCD+ clinical expert groups, district-level clinical management teams and patient expert groups
- Revise and update existing policies and develop new policies and clinical guidelines for NCDs+
- Strengthen and monitor implementation of guidelines (including accountability at an implementation level)
- Conduct an audit of the quality of clinical records
- Establish a working group or mechanism to review current re-orientation models and improve implementation and accountability of current models
- Promote and strengthen care within a context of managing co- and multimorbidities
- Strengthen NCD+ prevention and control quality of care and coverage within the Integrated Clinical Services Management (ICSM) model
- Strengthen integration of NCD+ prevention and control within district development plans
- Support provinces and districts to plan and implement cascades of care for hypertension and diabetes that are applicable to their respective districts and provincial contexts
- In a similar way to the district clinical specialist teams for maternal and child health, the DHS should consider deploying change agents consisting of a dyad of a public health specialist physician and a nurse, who will not only be responsible for implementation of the plan but also ensure clinical and data governance associated with the plan

Goal 5: Monitor strategic trends and determinants of NCDs+ to evaluate progress in their prevention and control

- Quarterly and annual monitoring of NSP progress
- Include NCDs+ in provincial and district health plans
- Identify data sources linked to data elements and indicators
- Develop data collection tools
- Pilot project at identified sites
- Prepare for national implementation
- Review existing surveillance systems for the inclusion of NCDs+
- Include NCD+ data coordination and surveillance within the role and function of the National Public Health Institute of South Africa (NAPHISA)
- Complete the NCD+ Indicator Data Dictionary to include the WHO global monitoring framework (GMF)
- NCD+ indicators in the NIDS
- Address existing constraints within the information system to allow for integration and effective surveillance
- Integrate NCD+ questions into current, broader surveys – questions across surveys to be standardised to enable comparisons across various timelines
- Ensure sustainable funding for surveys
- Support institutions responsible for established registries e.g. National Cancer registry by NHLS

APPENDIX E

TEMPLATES TO DEVELOP IMPLEMENTATION PLANS

Goal 1: Prioritise the prevention and control of NCDs+

Strategic objective	Deliverables	Indicators	Responsible directorate, programme or stakeholder	Stakeholders
To establish and build capacity towards a high-level multi-sectoral and multi-stakeholder NCDs+ mechanism for coherent policy	Create and capacitate a multi-sectoral and multi-stakeholder mechanism that promotes NCDs+ as a priority within UHC			

Indicators	Activities	Time Frame	Year 1	Year 2	Year 3	Year 4	Year 5
			X	X	X	X	X
			X	X	X	X	X

