REPUBLIC OF KENYA
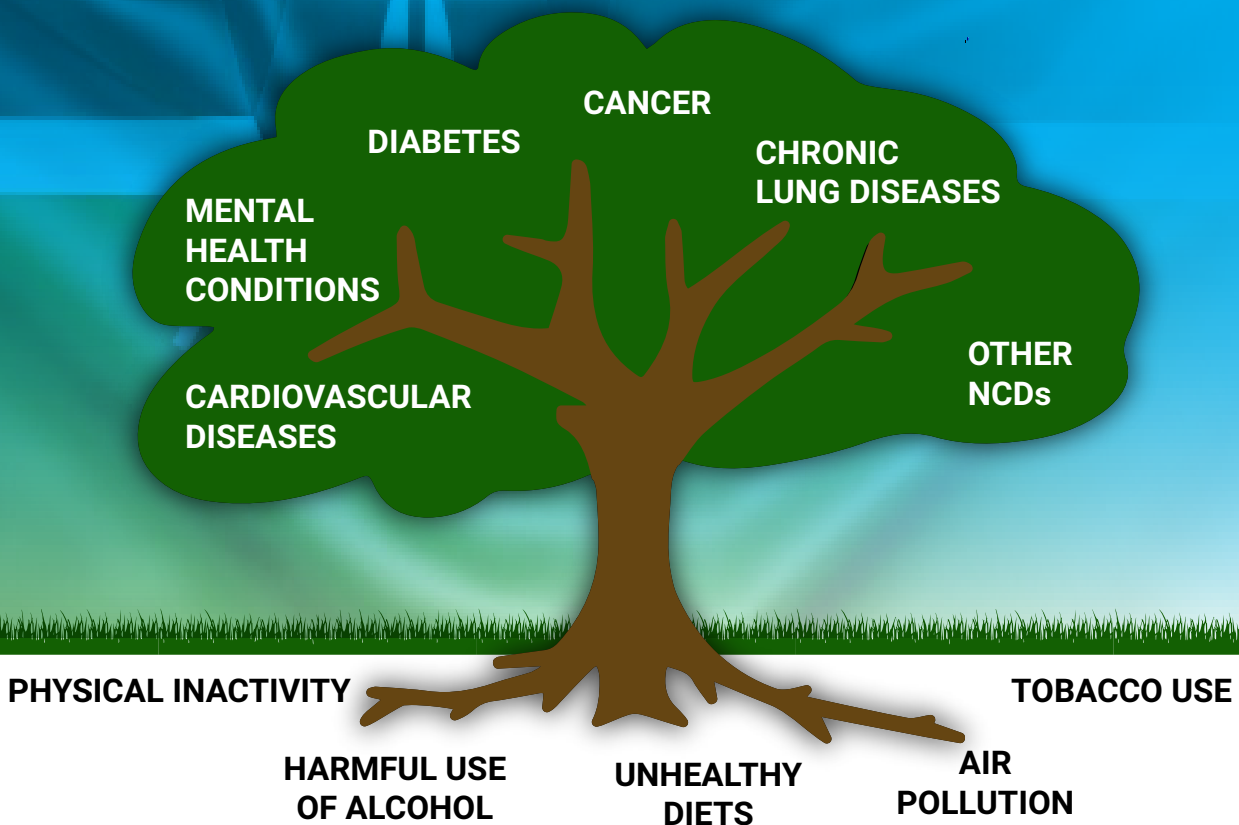
MINISTRY OF HEALTH

NATIONAL STRATEGIC PLAN FOR THE PREVENTION AND CONTROL OF NON-COMMUNICABLE DISEASES

2021/22 - 2025/26

CANCER

DIABETES

CHRONIC LUNG DISEASES

MENTAL HEALTH CONDITIONS

OTHER NCDs

CARDIOVASCULAR DISEASES

PHYSICAL INACTIVITY

TOBACCO USE

HARMFUL USE OF ALCOHOL

UNHEALTHY DIETS

AIR POLLUTION

NATIONAL STRATEGIC PLAN FOR THE PREVENTION AND CONTROL OF NON-COMMUNICABLE DISEASES

2021/22 - 2025/26

REPUBLIC OF KENYA

MINISTRY OF HEALTH

National Non-Communicable Diseases Strategic Plan
DEVELOPED BY THE DEPARTMENT OF NON-COMMUNICABLE DISEASES - MINISTRY OF HEALTH

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ACRONYMS

ACSM	Advocacy, Communication and Social Mobilization
AG	Attorney General
ASAL	Arid and Semi-Arid Land
ALOS	Average Length of Stay
CHA	Community Health Assistant
CHV	Community Health Volunteer
COPD	Chronic Obstructive Pulmonary Disease
CRAF	Common Result Accountability Framework
CRD	Chronic Respiratory Diseases
CSR	Corporate Social Responsibility
CVD	Cardiovascular disease
DALY	Disability Adjusted Life Years
DM	Diabetes Mellitus
DNCD	Department of Non-Communicable Diseases
EMR	Electronic Medical Records
FOBT	Fecal Occult Blood Test
FY	Fiscal Year
GBD	Global Burden of Disease
GDP	Gross Domestic Product
GLOBOCAN	Global Cancer Observatory
HPT	Health Products and Technologies
HPV	Human Papilloma Virus
HRH	Human Resources for Health
HTN	Hypertension
ICC	Interagency Coordinating Committee
ICT	Information, Communication and Technology
IRB	Institutional Review Board
KAM	Kenya Association of Manufacturers
KDHS	Kenya Demographic and Health Survey
KHHEUS	Kenya Household Health Expenditure and Utilization Survey
KHP	Kenya Health Policy

KHSSP	Kenya Health Sector Strategic Plan
KIHBS	Kenya Integrated Health Budget Survey
KNBS	Kenya National Bureau of Statistics
KNCHR	Kenya National Commission of Human Rights
MEAL	Monitoring, Evaluation, Accountability, and Learning
mhGAP	Mental Health Gap Action Program
MNS	Mental health, Neurological, and Substance use
MOH	Ministry of Health
NACOSTI	National Commission for Science, Technology, and Innovation
NCD	Non-Communicable Disease
NCDI	Non-Communicable Diseases and Injuries
NCPD	National Council for Population and Development
NGOs	Non-Governmental Organizations
NHIF	National Hospital Insurance Fund
NSP	NCD Strategic Plan
NTSA	National Transport Authority
PLWNCDs	People Living with NCDs
SARAM	Service Availability and Readiness Mapping
SBCC	Social and Behavior Change Communication
SDG	Sustainable Development Goal
SMART	Specific, Measurable, Achievable, Realistic, Time-bound
SSB	Sugar Sweetened Beverages
STEP	STEPwise approach to Surveillance
THE	Total Health Expenditures
TOC	Theory of Change
UHC	Universal Health Coverage
UN	United Nations
USD	US Dollar
WHF	World Heart Federation
WHO	World Health Organization

The Kenyan Health Sector plays a critical role in providing health care services in line with the Kenya Health Policy, 2014-2030's goal of attaining the highest possible health standards in a manner responsive to the population needs. Five of the six objectives in the policy have a direct impact on Non-Communicable Diseases (NCD) prevention and control. In 2011, 2014 and 2018, Kenya joined the rest of the world in renewing her commitment to increase efforts aimed at tackling the NCD epidemic during the United Nations High Level meetings on NCDs. Tackling NCDs is vital to achieving the 2030 Sustainable Development Goals (SDG), alignment with the Global Action Plan for NCDs, attainment of Vision 2030 and other global and national commitments.

Every year, 41 million people die from NCDs which are the leading cause of premature death globally. That is approximately 71% of all deaths worldwide most of which occur in low- and middle-income countries. NCDs are responsible for 39% of the deaths in our country. These NCDs include cancers, cardiovascular diseases, chronic respiratory diseases, diabetes, mental health conditions and injuries, among others. In addition, these NCDs have a crippling economic impact. Acting against NCDs is both a moral and economic imperative.

The development of the Kenya National NCD Strategic Plan (NSP) 2021/22-2025/26 is informed by the need to strengthen comprehensive multi-sectoral response to the increasing NCD burden. It aims to consolidate and sustain the gains made in the preceding NCD Strategic Plan 2015-2020, address the gaps and recommendations identified during its evaluation, and respond to emerging issues and trends. It places emphasis on population-wide prevention and control measures, as well as strengthening health systems for the whole continuum of care for NCDs. Costing of the Strategy will inform resource mobilization efforts towards adequate financing for NCD interventions.

The initial implementation of this plan will be in the recovery phase of the disruption of essential services occasioned by the COVID 19 pandemic and will need to be cognizant of the lessons learnt and needs identified in building resilience to our health systems to withstand external shocks like the one witnessed in 2020-2021.

This Strategic Plan will provide guidance to all stakeholders in NCD prevention and control to accelerate efforts to reduce suffering, disease, and death. I therefore call upon all the stakeholders and development partners to support the implementation of this NSP so that we can realize our set goals and targets, as we gear towards reduction by a third the premature mortality due to NCDs by 2025.

Sen. Mutahi Kagwe, EGH
Cabinet Secretary
Ministry of Health

A healthy population is critical to improved production and productivity necessary for sustainable economic growth. The Government through the Health Sector has demonstrated this commitment in prioritizing achievement of Universal Health Coverage (UHC) by 2022 as part of the Big Four agenda.

Investing in NCDs has been proven to contribute to reduced health care costs and increased economic development. If more aggressive action is not taken, the NCD burden threatens Kenya's quest to advance Universal Health Coverage (UHC), a central pillar of the health reform agenda that includes prevention and care for NCDs.

The NCD strategic plan 2021/22–2025/26 is the second strategic plan for NCDs that follows the implementation of the first NCD strategic plan 2015-2020. The development of this strategic plan was informed by the end-term evaluation of the previous NCD Strategic Plan (2015-2020); building on the success, gains and opportunities identified. Further, the strategic plan was developed through in-depth analysis of available data, including a highly participatory process involving a wide range of multisectoral stakeholders, county governments, line ministries, policymakers, civil society, development partners and people living with NCDs. A multisectoral technical working group was established to oversee the development of the strategic plan while the NCD Intersectoral Coordinating Committee (ICC) provided the oversight and quality control.

Most of the determinants of NCDs and their risk factors lie well outside the purview of the Ministry of Health thus coordinated multisectoral action is crucial. I wish to extend my gratitude to Line Ministries and other stakeholders ranging from Academia, private sector, Non-Governmental Organizations (NGO's), Civil Society Organizations (CSO's), Faith Based Organizations (FBO's), Community Based Organizations (CBO's) and the community at large who continue to support the Ministry in reducing the burden of NCDs.

Susan N. Mochache, CBS
Principal Secretary
Ministry of Health

Non-Communicable Diseases (NCDs) have emerged as conditions of great public health concern in Kenya accounting for 39% of deaths annually. The Ministry of Health through the Department of Non-Communicable Diseases has adopted the **vision** of achieving a nation free from preventable burden of NCDs. Further, the **mission** of this strategy is to halt and reverse the rising burden of NCDs through effective multisectoral collaboration and partnerships by ensuring Kenyans receive the highest attainable standard of NCD continuum of care that is accessible, affordable, quality, equitable and sustainable thus alleviating suffering, disease and death for their well-being and socio-economic development.

The scope of NCDs covered by this strategy include; cardiovascular diseases, cancer, diabetes, chronic respiratory diseases, mental health conditions, violence and injuries, hemoglobinopathies, haemophilia and other bleeding disorders, auto immune diseases, chronic renal diseases, epilepsy and other neurological disorders, chronic skin conditions and oral diseases and conditions. It equally addresses seven risk factors; tobacco use, harmful use of alcohol, unhealthy diets and toxins, physical inactivity, indoor air pollution, environmental pollutants and toxins and stress. Further to this, it applies a life course approach for the prevention, control, and management of NCDs.

This NSP recognizes that the conditions in which people live and work and their lifestyles influence their health and quality of life. Non-communicable diseases 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 not in line with government policy and practice.

In this regard, while an attempt has been made in this NSP to address all NCDs and their determinants, it is also noted that some of them have substantive National strategic plans of their own addressing them specifically and more comprehensively and thus reference will be made pointing some interventions to these policy documents where the substantive mandate and authority lies to create functional linkages, synergy and policy coherence.

This strategy is structured around five pillars;

1. Sectoral and multisectoral coordination and governance.
2. Minimize exposure to modifiable risk factors
3. Health system response for management of NCDs
4. Advocacy, communication, and social mobilization
5. Surveillance, monitoring, evaluation, and research

The NCDs strategic plan 2021/22-2025/26 targets to achieve five objectives aligned with the above five pillars;

- To strengthen Sectoral and Multisectoral Coordination, leadership and governance for prevention and response to NCDs at all levels.
- To reduce exposure to modifiable risk factors through strengthening multisectoral interventions.
- To strengthen the health system for provision of equitable, quality, accessible, affordable, responsive, and sustainable NCD management across the life course
- To strengthen advocacy, communication, and social mobilization at national, county and community level.
- To promote NCD research and strengthen surveillance, monitoring and evaluation of NCDs to inform decision making and health planning.

This NCD strategic plan has incorporated an elaborate monitoring, evaluation and learning framework which will measure and track its implementation. It details in depth how the five strategic objectives will be measured. The generated information will inform the implementers, decision makers and various stakeholders as to whether the NCD program is on track, and when and where modifications may be needed. The strategy has identified results expected upon full implementation, together with indicators that will measure the progress of achievement of the strategies outlined.

Lastly, the document highlights the institutional framework for implementing NCD activities. Leadership and Governance will play a critical role in successful implementation of this NCDs strategic plan by providing frameworks for engagement between various institutions working in NCDs programming within the country. The key players include national and county health management teams, boards, and committees, PLWNCDs, development partners and other relevant stakeholders in NCDs prevention and control. The leadership/management structure, governance and stewardship mechanisms will be sensitive to both humanitarian and development issues aimed at abating any threat that could be posed by public health emergencies and/or disasters, such as the COVID-19 pandemic.

This Kenya National NCD Strategic Plan 2020/1-2025/6 will act as the strategic blueprint for the prevention and control of non-communicable diseases at national and county level for the next five years.

Dr. Patrick Amoth, EBS
Ag. Director General for Health

ACKNOWLEDGEMENT

Dr. Ephantus Maree
Head, Department of Non-Communicable Diseases

CHAPTER 1

INTRODUCTION

REPUBLIC OF KENYA

MINISTRY OF HEALTH

1   CHAPTER ONE: INTRODUCTION

1.1   Geography and socio-economic status

The Republic of Kenya lies in East Africa and covers approximately 582,646 km^2. About 80% of its land is arid or semi-arid and sparsely populated[2] and it is administratively divided into 47 counties[3]. Based on the 2019 census, the estimated population of Kenya stood at 47,564,296, comprising 23,548,056 males, 24,014,716 females and 1,524 intersex [4]. The life expectancy as of 2017 was 63.4 years (KHSSP 2018-2022) [11].

The country's nominal Gross Domestic Product was KSh 9,740.4 million in 2019, while the GDP per capita was KSh. 204,783 in 2019 [5].   Approximately 36% of the population live below the national poverty line [6] and the literacy rate for those aged 15 years and above is 84.8% [7].

1.2   Organization of health services

Kenya's health is delivered in the context of a devolved system of governance established by the Constitution of Kenya 2010. The National Government is responsible for development of health policies, regulations, capacity building, resource mobilisation, conducting research, national referral health facilities and technical assistance to counties. The county governments are responsible for county health facilities and pharmacies, ambulance services, promotion of primary health care, and licensing and control of undertakings that sell food to the public, among other functions,[3]

Health service delivery is organized in six levels [8].

o   Level 1: Community health services

o   Level 2: Dispensaries

o   Level 3: Health Centers

o   Level 4: Sub-County Hospitals

o   Level 5: County Referral Hospitals

o   Level 6: National Referral Hospitals

There is a total of 12,833 facilities in the Kenya Master Health Facility List that comprises 9,711 level two facilities, 2,258 level three facilities, 836 level four facilities, 21 level five facilities and 6 levels of six facilities. There are 6,471 community units as of December 2020 [9].

Universal Health Coverage (UHC) is one of the global and national agendas aimed at ensuring access to affordable healthcare. The Government launched it with an aspiration that by 2022, all persons in Kenya including persons living with NCDs will be able to use the essential services they need for their health and without the risk of financial catastrophe.

1.3   Disease outlook in Kenya

Kenya is experiencing an epidemiological transition in its disease burden from predominantly communicable diseases to a rapidly rising burden of non-communicable diseases (NCDs) and injuries, resulting in a "triple burden of disease" which is increasingly straining the health system. Approximately 54% of deaths are due to communicable, maternal, and neonatal causes, while injuries accounted for 7 % of deaths. Approximately 39% of deaths in the country were as a result of NCDs, up from 27% in 2014 [10] It is projected that deaths from NCDs will increase by 55% while those from injuries will increase by 25% by 2030 [11, 12]. According to the 2018 Kenya Household Health Expenditure and Utilization Survey, the leading conditions that account for over 50% of long Average Length of Stay (ALOS) were largely due to NCDs and injuries: Accidents and Injuries (22.2 days), Surgeries (17.2 days), Diabetes (12.7 days) and Hypertension (11.1 days) [13]. In addition to their health impact, NCDs have a significant economic impact on households, communities and countries given their chronic nature and cost of care. NCDs have been shown to decrease household income by 28.6% in Kenya thus subjecting families to catastrophic expenditure spiralling them into a vicious cycle of poverty [14].

1.4   Non-Communicable Diseases and Public Health Emergencies

In the recent past, there have been several public health emergencies like Covid 19 pandemic which have significantly put a strain on the system. The Covid 19 pandemic, there has been major shift in how health services are financed and offered to ensure maintenance of essential services.

1.5   Health Financing in Kenya

Health care financing remains a critical element of the social and economic development of a country. An appropriate health financing mechanism will enable the health sector to achieve one of the critical health sector goals by ensuring access to quality and affordable health care.

The Total Health Expenditures (THE) in Kenya was KSh. 346 billion in FY 2015/16, from KSh. 271 billion in FY 2012/13. Total health spending in FY 2015/16 accounted for 5.2% of GDP down from 6.8% in FY 2012/13. The government expenditure on health as a percent of total government expenditure increased from 6.1% in FY 2012/13 to 6.7 % in FY 2015/16 [15, 16].zz
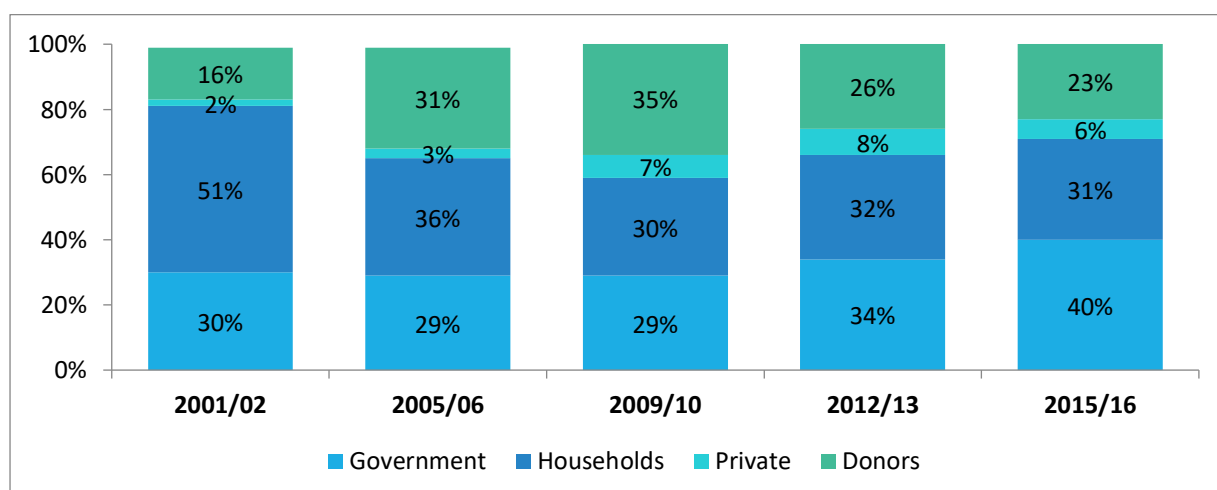
Figure 1: Sources of health expenditures

Source: National Health Accounts (Ministry of Health, 2017)

The proportion of health expenditures attributed to domestic sources has been on the increase since 2012, with the latest estimates (2015/16) showing 77% of total health expenditure is from domestic sources. Government share of total health expenditure has also been increasing, from 30% in 2001/02 to 40% in 2015/16. This is associated with a reduction in household expenditure, from 51% of total health expenditures in 2001/02 to 31% in 2015/16 as shown in Figure 1. The total government expenditure on health as a percentage of GDP was 2.1% and 2.3% in Financial Years 2018/19 and 2019/20 respectively against the target of at least 5 percent [17]. The government budget on health (National and County) as a proportion to the total government budget was 8.5% and 8.3% in Financial Years 2018/19 and 2019/20 respectively against the target of at least 15% [18]. County Government budget on Health as a share of the total County Government budget increased from 27.2% to 27.8% in Financial Years 2018/19 and 2019/20 respectively. Likewise, the proportions of individuals with health insurance coverage stood at 19.9% in 2018, with majority of those covered at 89% under the National Hospital Insurance Fund (NHIF).

1.5.1 Financing for NCDs

The Total Health Expenditure for Non-Communicable diseases (THE NCDS) in FY 2017/18 was KSh. 50.6 billion (USD 494.34 million). As a percent of THE, the spending on NCDs was 11.0%.

Table 1: Summary of NCD health-related indicators

Indicators	2017/18
Total Health Expenditure on Non-Communicable Diseases (THE$_{NCDs}$) (KSh)	50,610,961,777
Current Health Expenditure (CHE) (KSh)	42,970,703,200
Capital Formation (HK) (KSh)	7,640,258,577
Total Health Expenditure on Non-Communicable Diseases (THE$_{NCDs}$) ($)	494,344,225
THE$_{NCDs}$ as a % of THE	11.0%

1.6   Alignment with Global, Regional and National Policies and Commitments

Global Commitments

- Sustainable Development Goals – Gives a target of reducing by one-third premature mortality from non-communicable diseases through prevention and treatment and promoting mental health and well-being by 2030. This target has been adopted as the goal for this Strategic Plan. The third goal of the SDGs also address alcohol and tobacco control, road safety, partnerships among other matters relating to NCDs.

- 'Best Buys' and Other Recommended Interventions for the Prevention and Control of NCDs – This is a set of recommended policy options and cost-effective interventions to assist WHO Member States, as appropriate for their national context, in implementing measures towards achieving the Sustainable Development Goals (SDG) target 3.4. This Strategies Key Pillars and targets are aligned with the 'Best Buys'.

- UN High Level Meetings on NCDs- The Strategy acts as a means to domestication of commitments made during the 2011, 2014 and 2018 UN General Assembly meetings that touched on NCDs, including multi-sectoral action, prevention and control of key risk factors, human-rights based approach towards the prevention and control of NCDs, leveraging on technology, innovation and ICT, access to affordable, safe, effective, and quality medicines and diagnostics and other technologies, and integration of NCD interventions into other existing programs

Other global commitments that informed the development of this Strategy include:

- The WHO Framework Convention for Tobacco Control
- The Astana Declaration for Primary Health Care 2018
- The SAFER technical package: A World Free from Alcohol Related Harms
- WHO Mental Health Gap Action Program (mhGAP) Guideline for Mental, Neurological and Substance use Disorders
- Decade of Action for Road Safety 2021-2030
- World Health Assembly Resolution 70.12: Cancer prevention and control in the context of an integrated approach

Regional Commitments

Brazzaville Declaration on NCDs in the African Region: Expanded scope of priority NCDs for the region, to include hemoglobinopathies, violence and injuries, and mental health. The expanded scope has also been adopted by the Strategy.

National Legislation, Policies and Commitments

The Country's legislations, policies and socio-economic development agenda that informed the interventions highlighted in this Strategy include:

- Constitution of Kenya, 2010: Article 43 (1) (a), provides for the right to the highest attainable standard of health, which includes the right to health care services. Article 21 (2) requires the state to take legislative, policy and other measures to achieve the progressive realization of the rights guaranteed in article 43. Schedule 4 of the constitution assigns the mandate of health policy and technical support to the national government and health service delivery to the counties.

- Health Act, 2017: The Act provides for a health service package at all levels of the health system, which shall include services addressing promotion, prevention, curative, palliative, and rehabilitation, as well as physical and financial access to health care. It also provides for interventions to reduce the burden imposed by NCDs, including physical activity, counter the excessive use of alcoholic products and the adulteration of such products, and reduce the use of tobacco and the promotion of supply of safe foodstuffs.

- The Big Four Agenda, particularly Universal Health Coverage to achieve access and quality health for all regardless of ability to pay.

- Kenya Health Policy 2014-2030: The Policy highlights the sector's commitment under the government's stewardship to ensure attainment of the highest possible standards of health in a manner responsive to the population health needs. The policy gives direction towards halting and reversing the rising burden of NCDs.

- Kenya Health Sector Strategic Plan 2018-2022: Focuses on community and institutional screening for NCDs, risk factors for NCDs, access to quality care and improvement of treatment outcomes. The NCD indicators there-in have been adopted and expounded on in this Strategy.

Other relevant policy and legislative instruments that guided the development of this strategy include:

- Vision 2030 and the Medium-Term Plan 2018-2022
- The Kenya Mental Health Policy 2015 – 2030
- The Kenya Cancer Policy 2019
- Kenya Essential Package for Health
- Tobacco Control Act 2007
- Alcoholic Drinks Control Act 2010
- Cancer Prevention and Control Act 2012
- The Occupational Safety and Health Act, 2007;
- The Food, Drugs and Chemical Substances Act Cap 254
- Public Health Act Cap 242
- Radiation Protection Act, 2012, Cap 243
- Environmental Management and Coordination Act, 2002, Cap 387
- National Environmental Management Act, 1998
- The Occupational Safety and Health – Medical Examinations Rules (Legal Notice 24 of 2005)
- The Traffic Amendment Act 2010

1.7 NCD strategy development Process

The NCD strategic plan 2021/22–2024/25 is a second strategic plan for NCDs that preceded the implementation of the first one of 2015-2020. The development of this Strategic Plan was informed by the end-term evaluation of the 2015-2020 Strategic plan as a way of building on the success, gains and opportunities identified. Further, the strategic plan was developed through in-depth analysis of available data, including a highly participatory process that involved a wide range of multisectoral stakeholders, County government, line ministries, policymakers, and people living with NCDs. A multisectoral Technical working group was established to oversee the development of the strategic plan while the ICC provided oversight and quality control. See attached list of contributors in Appendices 4.

1.7.1 Review of the 2015 – 2020 National Strategic Plan for the Prevention and Control of Non-Communicable Diseases

The Department of Non-Communicable Diseases under the leadership of the NCD-ICC conducted a review of the NCD strategy 2015 -2020 to establish its achievement to shape the landscape of NCDs programming in Kenya as it was the first-ever Strategic Plan developed by the MoH Department of NCDs. The review exercise assessed the overall goals, objectives, activities, and achievements.

The 2015-2020 NCD strategy had 1 goal, 10 objectives and 109 activities that were to be achieved by the end of 2020. The following is a summary of the overall performance, key achievements, and gaps identified during the implementation period.

Table 2: Overall performance of the 2015-2020 NCD strategic plan

Objective	Performance	Number of activities	Percentage
Objective 1: To establish mechanisms to raise the priority accorded to NCDs at national and county levels and to integrate their prevention and control into policies across all government sectors	Achieved	2	33.3
	Partially Achieved	3	50.0
	Not achieved	1	16.7
	Total	6	100.0
Objective 2: To formulate and strengthen legislations, national policies and plans for the prevention and control of non-communicable diseases/conditions at both the county and national government	Achieved	3	50
	Partially Achieved	3	50
	Not achieved	0	0
	Total	6	100.0
Objective 3: To promote healthy lifestyles and implement interventions to reduce the modifiable risk factors for non-communicable diseases: unhealthy diets, physical inactivity, tobacco use and harmful use of alcohol	Achieved	4	13.8
	Partially Achieved	21	72.4
	Not achieved	4	13.8
	Total	29	100.0
Objective 4: Promote and implement evidence-based strategies and interventions for prevention and control of violence and injuries	Achieved	0	0
	Partially Achieved	8	100
	Not achieved	0	0
	Total	8	100.0
	Achieved	0	0
	Partially Achieved	15	71.4

Objective 5: To strengthen health systems for NCD prevention and control across all levels of the health sector	Not achieved	6	28.6
	Total	21	100.0
Objective 6: To promote interventions to reduce exposure to environmental, occupational, genetic, and biological risk factors	Achieved	0	0
	Partially Achieved	4	100
	Not achieved	0	0
	Total	4	100.0
Objective 7: To establish and strengthen effective monitoring and evaluation systems of non-communicable disease and their determinants	Achieved	1	11.1
	Partially Achieved	7	77.8
	Not achieved	1	11.1
	Total	9	100.0
Objective 8: To promote and conduct research and surveillance for the prevention and control of non-communicable diseases	Achieved	3	23.1
	Partially Achieved	8	61.5
	Not achieved	2	15.4
	Total	13	100.0
Objective 9: To promote local and international partnerships for the prevention and control of non-communicable Diseases	Achieved	4	57.1
	Partially Achieved	2	28.6
	Not achieved	1	14.3
	Total	7	100.0
Objective 10: To promote and strengthen advocacy, communication, and social mobilisation for NCD prevention and control	Achieved	2	33.3
	Partially Achieved	4	66.7
	Not achieved	0	0.0
	Total	6	100.0
Overall Performance	Achieved	19	17.4
	Partially Achieved	75	68.8
	Not achieved	15	13.8
	Total	109	100.0

Key achievements and gaps identified during the implementation period

Key achievements	Key Gaps
• Establishing NCD Inter-Agency Coordinating Committee. • Review and development of key NCDs related policies and plans. • Strengthen the implementation of the protocol to eliminate illicit trade in tobacco products. • Development of standardized data collection and reporting tools for DM/HTN and integrating it in the KHIS. • Building the Capacity of the health care system to deliver NCDs services (Development of clinical guidelines, training of HCWs, CHVs and establishment of clinics. • Research (Stepwise survey 2015, NCD Navigator (stakeholders Mapping), journey of the pill. • Enhanced and meaningful involvement of civil society, PLWNCDs and the private sector in NCD prevention and control policy and operations. • Heightened and targeted advocacy	• There was no prioritisation done; the objectives (10) and activities (109) were too many to implement or monitor over a five-year period. • Some action areas were vague or ambiguous. • Several indicators were not SMART. • Fundraising challenges due to lack of costing • Lacked process indicators targets. • Lacked a defined dissemination framework. • No mid-term review undertaken. • Inadequate involvement of PLWNCDs in the development process. • Management of NCDs was not comprehensively addressed in the strategy. • NCD prevention and control among children and young people was not included in the strategy.

1.7.2   Key Recommendations

- The new strategic plan should be aligned with the global and national policies and strategic documents on NCDs prevention and control
- Development of a clear advocacy, communication, and social mobilisation framework
- The M&E plan should be clear with SMART indicators
- Costing of NCD strategic plan
- The strategy to prioritise NCD prevention among young people
- Curative services should be prioritised and well-articulated
- The new strategic plan should adapt a gendered approach to NCD prevention and control, and should formulate strategies to leverage and integrate with other existing MOH programmes

1.7.3   Target Audience

These include all government ministries, departments and agencies, county governments, WHO, Key UN Bodies, Donor agencies, academic institutions, CSOs, CBOs, professional associations, health care institutions, manufactures and their umbrella bodies such as Kenya Association of Manufacturers (KAM), Media entities, PLWNCDs, NGOs.

CANCER AWARENESS RIBBONS

CHAPTER 2

KENYA NCDs SITUATION ANALYSIS

REPUBLIC OF KENYA

MINISTRY OF HEALTH

2   CHAPTER TWO: KENYA NCDs SITUATION ANALYSIS

2.1   Introduction

The Kenya NCDs situation analysis was conducted through desk reviews of thematic areas. Key reference was made to the World Health Organization (WHO) reports, the Global Action Plan on NCDs, relevant Ministry of Health policy and strategy documents and current published literature on NCDs. Key players in NCDs prevention and control provided vital information to guide the strategic directions.

2.2   Global and Regional Burden of Non-Communicable Diseases

2.2.1   Global Burden of Non-Communicable Diseases

Non-communicable diseases are the leading cause of premature death globally. Every year, 41 million people die from heart attacks, stroke, cancer, chronic respiratory diseases, diabetes, or mental disorders. Of these deaths, 15 million occur prematurely among people aged 30-70 years, and 85% of these deaths occur in low- and low-middle income countries [19]. That represents approximately 71% of all deaths worldwide in addition to a significant crippling economic impact.

World leaders pledged to reduce "premature" deaths from NCDs by one-third by 2030 as part of the United Nations' Agenda for Sustainable Development. They recognized the importance of SDG 3 and ensuring that people do not just survive, but live long and healthy lives, as well as the importance of preventing NCDs as specified in SDG target 3.4 [20]. Acting against NCDs is therefore not only a moral imperative, but also an economic imperative [19].

2.2.2   Regional (Africa) Burden of Non-Communicable Diseases

WHO estimates that deaths from non-communicable diseases (NCDs) are likely to increase globally by 17% over the next 10 years, and the Region will experience a 27% increase, that is 28 million additional deaths from these conditions which are projected to exceed deaths due to communicable, maternal, perinatal and nutritional diseases combined by 2030 [19]. Unless urgent action is taken, the rising NCDs burden will add great pressure to overstretched health systems and pose a major challenge to development in Africa. While low cost solutions and high impact essential NCDs interventions delivered through primary health-care approach have been shown to have population level impacts, existing literature shows that health policy responses to NCDs has been inadequate, vertical and fragmented [21].

In some Sub-Saharan African countries, NCDs cause over 50% of all reported adult deaths. This implies that NCDs will soon be a leading cause of ill health, disability, and premature death in the Region, and will have an adverse impact on socioeconomic development.

PROPORTION OF DEATHS DUE TO NCDs IN KENYA BY COUNTY
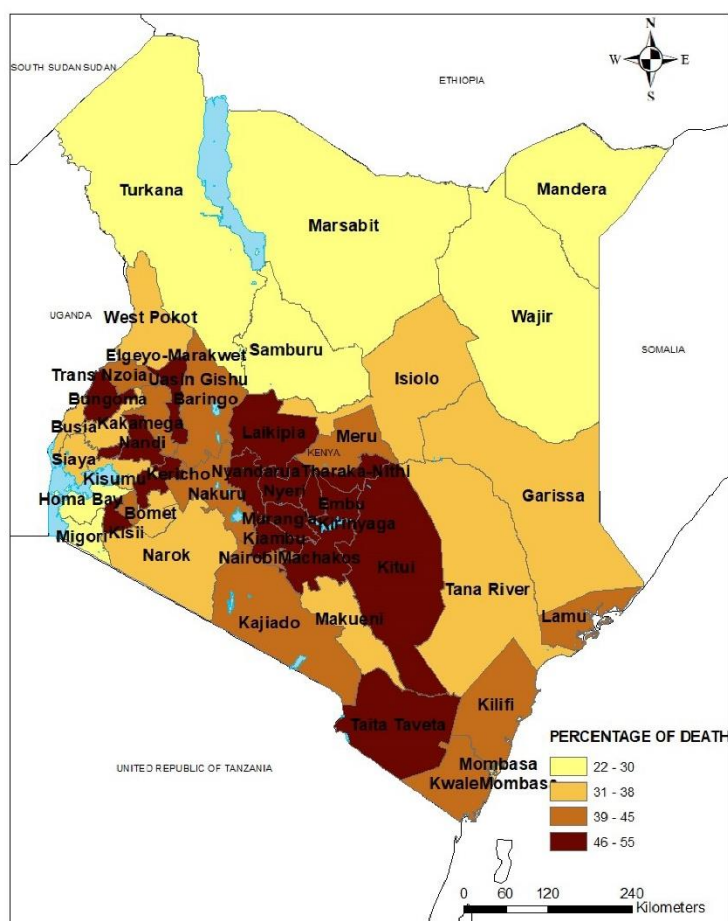
Figure 2: Proportion of deaths due to NCDs by County

2.3   The Burden and Trends of NCDs in Kenya

Non-Communicable Diseases have emerged as conditions of great public health concern in Kenya. Approximately, 39% of all deaths in the country are because of NCDs [10]. The four major NCDs: CVDs, Cancers, Diabetes and Chronic Respiratory Diseases comprise 57% of all the NCD deaths. The other less prevalent NCDs such as, Epilepsy, sickle cell disease and other haematological disorders, Alzheimer's disease, Lupus, Psoriasis, genetic conditions, and congenital anomalies account for the rest of the deaths (43%). It is also worth noting that 53% and 72% of the NCDs and injury DALYs respectively occur among persons aged 40 years and below [14].
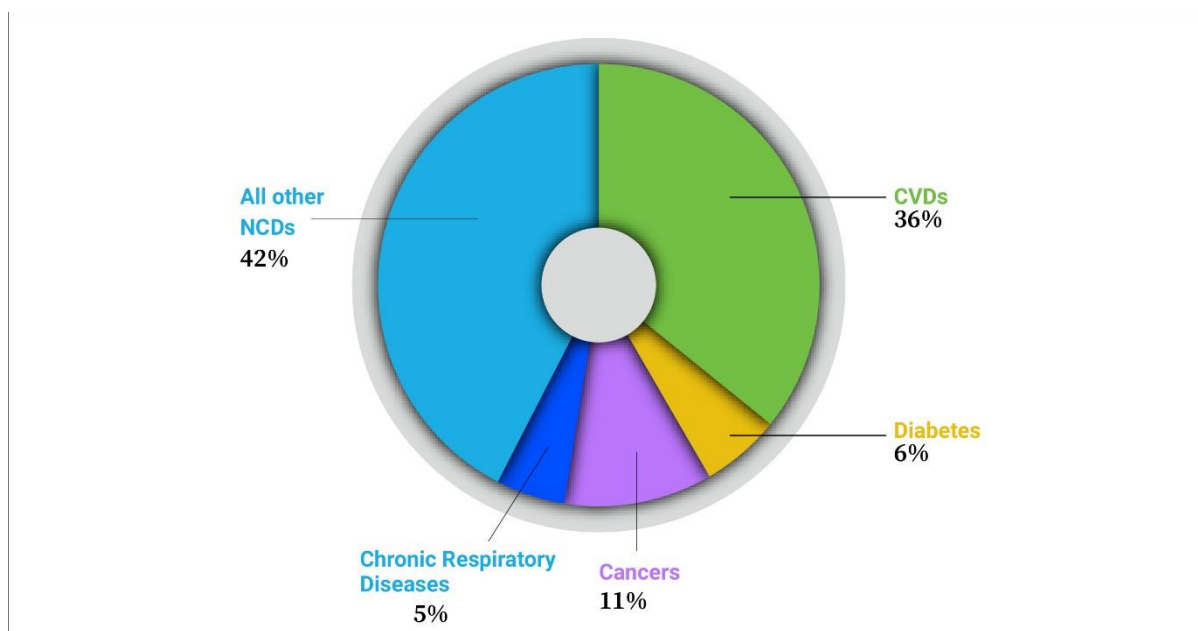
Figure 3: Proportion of NCD deaths in Kenya due to specific diseases (GBD 2019)

In Kenya, NCDs cause significant economic impact on households by a decrease of 28.6% household income and subjecting families to catastrophic expenditures spiralling them in a vicious cycle of poverty.

According to the Kenya Non-Communicable Diseases and Injuries Poverty Commission Report [14] (interventions to mitigate the impact of NCDs would require 17% of total health expenditure, or $11.97 per capita annually. This represents an almost three-fold increase in current NCD expenditure. Such interventions include inpatient and outpatient services for NCDs, comprehensive mental health, surgical, palliative care, rehabilitation services, as well as community and population-based prevention efforts.

2.4   The Burden of Non-Communicable Diseases (NCDs) in Kenya

2.4.1   Cancer

It is estimated that cancer is the second leading cause of NCD related deaths in Kenya after cardiovascular diseases and accounting for 8% of overall national mortality [10]. Existing evidence shows that the annual incidence of cancer is close to 42,116 (male 15,556, female 26,550) new cases and an annual mortality of over 27,092 (male 10,466 female 16,626)

The most common cancers in women are breast, cervical and esophagus with incidence rates of 25.6%, 19.7%, 6.1% respectively, while in men, prostate cancer, esophageal, and colorectal with incidence rates of 21.9%, 8.7% and 8.3% of all cancers, respectively. It is projected that the burden of cancer will increase by 62.7% to about 77,894 cases annually by 2030 at the current population growth [22]. The STEPS survey 2015 reported very low levels of cervical cancer screening among women between 25-49 years at 14.2. While diagnosis is the entry point to cancer care, there is limited infrastructure and human resources for pathology

contributing to late-stage diagnosis. Comprehensive cancer treatment coverage is equally low with only about 23% of cancer patients accessing radiotherapy services.

Early detection ensures a favourable outcome and prognosis of most cancers. About 70% of reported cases in Kenya are detected at an advanced stage when very little can be achieved, and outcomes are very poor.

2.4.2   Cardiovascular diseases

Cardiovascular diseases are the leading cause of death in the world, with 80% of all CVD-related deaths occurring in low and middle-income countries. These includes; hypertension, chronic ischemic heart disease (Heart attack), cerebrovascular disease (stroke), cardiomyopathy, valvular heart disease and pericarditis. It is estimated that mortality due to CVD in Kenya is 13.8% [10]. The leading CVD deaths are stroke (6.1%, Male 5.8%, female 6.4%) and Ischemic Heart diseases (4.6%, male 4.7%, female 4.6%).

Hypertension is an important risk factor for CVD and remains the single biggest risk factor for stroke [23].

The prevalence of hypertension has increased over the last decade with the STEPs survey 2015 showing that close to a quarter of Kenyans had hypertension. This prevalence increased with age with more than half of those above 40 years being hypertensive. Sadly, only 4% of the patients under treatment achieved control portending a big risk of long-term complications like heat attacks, strokes, blindness, and renal failure.

2.4.3   Diabetes

In Kenyan adults, the nationally adjusted prevalence of diabetes was estimated to be 3.1% in 2019 and is projected to rise to 4.4% in 2035 if nothing is done. More than 8,700 diabetes-related deaths were registered in Kenya in 2015, almost all under 60 years of age [24]. This rise in diabetes is associated with demographic and social changes such as globalization, urbanization, aging population, and adoption of unhealthy lifestyles such as consumption of unhealthy diets and physical inactivity.

Undiagnosed cases of diabetes are a public health concern with costly public health implications. This can have additional cost implications for households and on an already overburdened health systems, thus a need to increase screening efforts in Kenya to prevent the progression to diabetes. The STEPwise survey 2015 reported that more that 88% (male 88%, women 87%) of Kenyans have never had their blood sugar tested, leading to late diagnosis of diabetes [25]. This late diagnosis contributes to the high morbidity and mortality burden, which occurs at a younger age before the age of 60. IDF estimates that Kenya has one of the highest proportion of deaths from Diabetes for persons below age 60 years   among the East African countries, with (88.4%), Uganda (88.0%), and Zimbabwe (86.4%) respectively [24]. Undiagnosed individuals with diabetes are likely to experience complications even before a diagnosis is made leading to irreversible complications and thus increasing the cost of management.

Efficient diabetes management will require a systematic approach to the organization of care provision. There are several elements to this approach. These include: well trained and dedicated personnel, calibrated

and functioning equipment, management and referral protocols, continuous supply of medication and supplies, and well designed patients registry to facilitate ongoing care support, recall for non-attendance and proactive care process.

2.4.4   Chronic Respiratory Diseases

Chronic respiratory diseases (CRDs) are diseases of the airways and other structures of the lung. Some of the most common are chronic obstructive pulmonary disease (COPD), asthma, occupational lung diseases and pulmonary hypertension. The risk factors for CRDs are tobacco smoke, air pollution, occupational chemicals and dusts, and frequent lower respiratory infections during childhood. Globally, over 3 million people die each year from COPD, an estimated 6% of all deaths worldwide, 235 million people suffer from asthma, a common disease among children and 90% of COPD deaths occur in low-income and middle-income countries.

In Kenya, chronic respiratory diseases are responsible for approximately 1.73% of the deaths (male 1.92%, female 1.5%) [10]. One of the common diseases in this category is Chronic Obstructive Pulmonary Disease (COPD) which is often under-diagnosed, life threatening lung disease that may progressively lead to death. In Kenya COPD is estimated to cause approximately 1.7% of the deaths. The main drivers of COPD include tobacco smoking, indoor air pollution (from use of biomass fuel for cooking and heating), outdoor air pollution and occupational dusts and chemicals.

Outcomes for patients with chronic respiratory diseases remain poor despite the development of novel therapies. In part, this reflects the fact that adherence to therapy is low and clinicians lack accurate methods to assess this issue.

2.4.5   Mental health

The Global Context of mental, neurological and substance use disorders are common and affect more than 25% of all people at some point during their lifetime [26]. In addition, the WHO observes that it is estimated that about 10% of the adult and child populations at any given time suffer from at least one mental disorder. In addition, at least 20% of all patients seen by primary health care professionals have one or more mental disorders.

Equally, there is inadequate data and information on the prevalence of mental health, neurological, and substance use (MNS) in Kenya. However, it is estimated that up to 25% of outpatients and up to 40% of in-patients in health facilities suffer from mental conditions [27]. Further, the probable prevalence of psychosis in Kenya is at an average of 1 % of the population [28]. The most frequent of diagnosis of mental illnesses made in general hospital settings are depression, substance abuse, stress and anxiety disorders. [29] .

Mental health services are widely underfunded especially in developing countries. Kenya is among the 28% of WHO member states countries that do not have a separate budget for mental health.

As a respond to the rising burden of mental conditions in the Country, the President in 2019 directed the formation of a Mental Health Taskforce which was mandated to address the mental health concerns of Kenyans and help guide the government on resource allocation for mental health. The taskforce has developed recommendations that if implemented will reduce the burden of mental health conditions in the country [1].

2.4.6 Violence and Injury

Violence and injuries account for 7% of all the deaths in the country. The STEPs survey showed that 10% (male 12%, female 8%) of Kenyans reported to have been involved in a serious injury in the preceding 12 months. The most prevalent injuries were cuts, falls and injuries resulting from road traffic crashes. Number of road traffic fatalities as reported by the National Transport and Safety Authority (NTSA) has been gradually increasing over the years for instance in 2018 number of fatalities were 3159, 2019 fatalities were 3586, 2020 fatalities were 3975. In 2020, the highest proportion of fatalities was seen among motorcyclists at 40% which is a departure from the past where pedestrians experience the highest fatalities. Pedestrian fatalities accounted for 35% of all the deaths. Males constituted 86.4% of the fatalities.
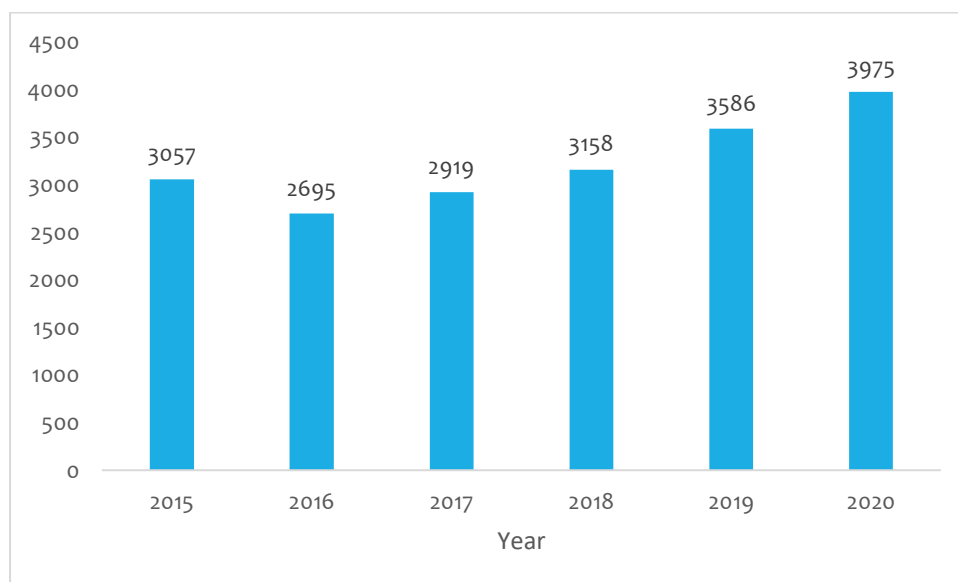
Figure 4: Trend of road traffic fatalities
Source: NTSA

There is a correlation between NCDs and injuries as some of the risk factors for injuries include alcohol use while experience of violence during childhood can predispose to mental illness and the engagement of risky behaviour such as tobacco and alcohol use.

2.4.7 Oral diseases and conditions

In Kenya, the prevalence of dental caries among the 5-year-olds is 46.3% while that in the adult population (18 years and above) was 34.3% (male 33%, female 35%) in 2015. In addition to dental caries, common oral

diseases and conditions were identified in Kenya including periodontal disease, partial or complete loss of natural teeth, dental fluorosis, oral mucosal lesions and tooth wear [30]. Moreover, it cannot be ignored the burden of oral cancer, are ranked the 12th by incidence among cancers in Kenya, oro-facial trauma, congenital malformations, oral manifestations of HIV and harmful traditional practices and habits such as infant oral mutilation (IOM).

Most oral diseases and conditions share modifiable risk factors (such as tobacco use, alcohol consumption and an unhealthy diet high in free sugars) common to the four leading NCDs. In addition, it is reported that diabetes is linked in a reciprocal way with the development and progression of periodontal disease.

2.5   NCDs shared Risk factors

2.5.1   Tobacco Use

Tobacco use and exposure to second-hand tobacco smoke is a major preventable risk factor for Non-communicable diseases. Tobacco use continues to kill over 8 million people each year, including more than 800 000 non-smokers who die from exposure to tobacco smoke. Nearly 80% of these deaths occur in low and middle-income countries that are still grappling with communicable diseases.

According to STEPwise survey for NCD risk factors of 2015, among adults age 18-69 years, 13 percent of them were using tobacco with significant high prevalence among men (23%) than women (4%). Exposure to second-hand smoke at home was 24% and at workplace 30%.

The Global Youth Tobacco Survey 2013, showed that 9.9% (12.8% male, 6.7% female) of 13-15-year-old adolescents in Kenya use tobacco. Exposure to second hand smoke among the youth was 24.8% at home and 44.5% in the workplace [31].

2.5.2   Harmful Use of Alcohol

Harmful use of alcohol is one of the main factors contributing to premature deaths and disability and has a major impact on public health. The harmful use of alcohol encompasses several aspects of drinking such as the volume of alcohol drunk over time; the pattern of drinking that includes occasional or regular drinking to intoxication; the drinking context if it increases the public health risks; and the quality or contamination of alcoholic beverages.

The STEPS survey revealed that 19% (male 33%, female 5%) of Kenyans drink alcohol regularly. Heavy Episodic drinking in Kenya is approximated at 12.7%. According to 2018 RTI International publication, 10% of young people aged between 11 and 19 in Kenya consume alcohol and are exposed to minimally regulated, potent and illicit alcoholic brews. The prevalence of heavy episodic drinking in the 15-19 years old population is 6% (12% males, 1.7% females).

Nearly two thirds of Kenyans drink home-brewed beers or wines and those that smoke (34.4%) engage in HED compared to non-smoking persons. There is a significant prevalence of HED among alcohol drinkers in Kenya. Young males, those with less education, married people, with male sex as the primary driving factor. Understanding the burden and patterns of heavy episodic drinking will be helpful to inform strategies that would curb the problem in Kenya [25].

2.5.3   Overweight and Obesity

Overweight and obesity are a major risk factor for non-communicable diseases such as cardiovascular diseases, diabetes, and some types of cancer. They are associated with increased rates of chronic disease and death globally. In Kenya, the prevalence of overweight and obesity was higher among women than men at a rate of 17.5% for men and 38.5% for women being overweight and 4.7% of men being obese and 13.7% of women being obese respectively [25].

According to Global Nutrition Report, Kenya has shown limited progress towards achieving the diet-related indicators with under 5-years overweight rates of 4.1%. The country has shown no progress towards achieving the target for reducing obesity among the adult population, with an estimated 11.1% of adult (aged 18 years and over) women and 2.8% of adult men living with obesity. Kenya's obesity prevalence is lower than the regional average of 18.4% for women and 7.8% for men [32].

2.5.4   Unhealthy diets

Healthy diets play a major role in prevention of non-communicable diseases. According to STEPS survey 2015, only 6.0% (male 6.8%, female 5.2%) of Kenyans consume a minimum of the recommended five servings of fruits and vegetables daily, while 23% of adults adding excessive salt to food at the table and 28% use excessive amounts of sugar in beverages.

Though the STEPS survey reported a high awareness of the health dangers of consuming high dietary salt and sugar intake was (87.7% and 91.3% respectively), only about half of the respondents regarded reduction of the same in diet as very important, and an approximately equal proportion was implementing strategies to reduce dietary sugar and salt intake [33].

2.5.5   Physical Inactivity

Physical inactivity is the 4th leading risk factor for global mortality after high blood pressure, tobacco use and high blood glucose. Physical Activity is an independent risk factor for NCD. It is estimated to be the main cause for approx. 21-25% of breast and colon cancers, 27% of diabetes and 30% of ischemic heart disease burden. There are many health benefits demonstrated from various studies, that accrue to more physically active individuals when compared to those who are less physically active.

 According to the Global School Health Survey 2003 conducted among students aged 13 to 15 years in Kenya, only 11.1% were engaged in regular physical activity of at least 60 minutes per day and 40.9% had sedentary

habits. The STEPS survey 2015 showed that 6.5% of adults do not engage in the recommended level of physical activity.

2.5.6 Environmental pollutants, Agrochemicals, Heavy Metals and Toxins

Air pollution is the second leading cause of deaths from NCDs, after tobacco-smoking. In 2018, the third United Nations high-level meeting on NCDs recognised household and outdoor air pollution as a risk factor for NCDs, alongside unhealthy diets, tobacco use, harmful use of alcohol and physical inactivity [1]. In accordance with the WHO guidelines, the air quality in Kenya is considered moderately unsafe. The concentration of particulate matter (PM) is a key air quality indicator since it is the most common air pollutant that affects both short and long-term health. The most recent data (April 2020) indicates the country's annual mean concentration of PM2.5 is 29 µg/m3 which exceeds the recommended maximum of 10 µg/m3. The key contributing factors for air pollution in Kenya include vehicle emissions, cement manufacturing, thermal power plants, and waste burning. The World Health Organisation estimates that 87% of the population rely on polluting fuels and technologies [34].

Other pollutants beyond air pollution of concern in Kenya include heavy metals, agrochemicals, asbestos, and aflatoxins. The residues of toxic agrochemicals, like glyphosate enter the human gut and have been implicated in various dysfunctions harmful to human health including associated with some cancers.

2.6 Human Resource for NCD

The human resource for health is one of the key health sector pillars for service interventions and inputs. According to the Kenya Health facility assessment 2018-2019 the national core health workforce density is at 15.6/10,000 [36]. This is below the set target of 23/10,000. The doctor to population ratio was 0.6 to 10,000 population, the nurse population ratio was 10 per 10,000 and 3 registered clinical officer to 10,000 population. Due to the lack of the application of appropriate health personnel deployment norms and standards, the distribution of workforce has tended to favour regions perceived to have high socioeconomic development, leaving marginalized and hard-to-reach areas at a disadvantaged. There is a skewed urban-rural distribution of HRH staff, with the urban areas having the highest proportions of staff at the expense of rural and remote areas where 70% of the population lives. Kenya Health Policy 2014–2030 highlights that advanced medical care is also mostly available in urban areas [11].

There is need to strengthen human resources for the prevention and control of non-communicable diseases in line with HRH strategic plan 2019-2023 [37] and include:

- Identify competencies required and invest in improving the knowledge, skills, and motivation of the current health workforce to address non communicable diseases

- Incorporate the prevention and control of non-communicable diseases in the training of all health personnel
- Provide adequate compensation and incentives for health workers to serve underserviced areas including location, infrastructure, social support, training and development and social support
- Promote the production, training, and retention of health workers with a view to facilitating adequate deployment of a skilled workforce
- Develop career tracks for health workers through strengthening postgraduate training and enhancing career advancement for non-professional staff
- Optimize the scope of nurses' and allied health professionals' practice to contribute to prevention and control of non-communicable diseases
- Strengthen capacities for planning, implementing, monitoring, and evaluating service delivery for non-communicable diseases
- Ensure availability of health care workers who are willing to undergo in service training on NCDs
- Improvement in number of trained H/Workers in particular disease conditions (CVD, Diabetes, Cancer)
- Address pre-service training gaps in NCDs management at undergraduate and postgraduate level

2.7   SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats)

The following represents the strengths, weakness, opportunities, and threats for NCD prevention and control in Kenya.

2.7.1   Strengths and Weaknesses

Health system strengthening pillar	Strengths	Weaknesses
Service Delivery	• Several disease specific guidelines (Cardiovascular diseases, Diabetes, Sickle cell Diseases, Nutrition guidelines, Physical activity guidelines and Tobacco Cessation guidelines) • Primary Health Care strategic framework that advocates for NCD management across all levels • Supportive higher institutions of learning	• The existing health care models was established to be more responsive to infectious/acute diseases • NCD care not fully integrated in primary health care levels • Lack of proactiveness in service delivery • Poor working environment • Lack of wellness clinics • Lack of service integration • Brain drain
Human Resource	• Availability of health care workers who are willing to undergo in service training on NCDs. • Improvement in number of trained H/Workers in particular disease conditions (CVD, DM, Cancer)	• Lack of adequate knowledge and skills on the management of NCDs • Inadequate staff numbers • Lack of clear NCD career path • Inappropriate staff placement • Deployment not based on skills
Health Information	• Presence of data protection act 2019 • Already defined and feasible data flow mechanism form lower levels to national level. • Presence of a flexible Kenya Health information system • Data tools in disease specific areas such as diabetes and hypertension are present. • Cancer registry established. • Trained health information records officers • Availability of data through surveys and studies e.g., STEPs survey 2015, NCDI commission poverty report	• Lack of a unified EMR for the country and lack of a harmonized unique identifier. • lack of competence of utilizing data to make policy decisions. • Completeness and accuracy issues with the Kenya health information system reporting • Lack of adequate resources for strengthening health information systems.
Leadership and Governance	• Establishment of the NCD interagency coordinating committee • Uplifting of NCD division into NCD department • Presence of County NCD coordinators	• Lack of Good governance structures • Low levels of awareness among policy makers • Lack of prioritization of NCDs
Health Products and Technology (HPTs)	• Improved availability of HPTs in urban and peri-urban parts of the country e.g. HBA1c, dialysis • Increased access to certain special tests, medicines and procedures e.g. dialysis, transplant, cancer treatment. • NHIF coverage for special diagnostics and treatment, MRI, CT Scan, chemotherapy, Radiotherapy	• Cost and availability of HPTs as a barrier for NCDs • Mismatch between equipment and HR required to run and maintain the equipment. • Recurrent stock outs of essential medicines • Missing essential technologies and assistive devices in the EML
Financing	• NHIF coverage for special diagnostics and treatment, MRI, CT scan, chemotherapy, radiotherapy • Presence of NCD investment case to be used for advocacy for increased funding.	• Poor allocation for NCDs both nationally and county level • Lack of a chronic disease essential package for health • County financing management systems do not ring-fence health budgets • No financial protection for PLWNCDS • Lack of accountability and transparency of national and county finances

		• Limiting procurement policies
People	• Establishment of Non-Communicable Diseases Alliance Kenya with strong focus on PLWNCDs and presence of multiple patient support groups • Training of PLWNCDs as policy advocates	

2.7.2 Opportunities and Threats

Opportunities	Threats
• Universal Health Coverage roll out • Advances in technology • Widely available internet connectivity • Council of Governors forum • There is available evidence generated through Steps Survey • Media has started paying attention to NCDs • Observance of world health days • Increased health conscience and willingness to change among populations • Vibrant civil society and PLWNCDs	• Emerging outbreaks and pandemics e.g. COVID • Climate change • Political transitions/disruptive elections • High turnover of CHMTs and CECs in counties • Declining donor support • Stigma and discrimination still exists among communities on NCDs (Cancer, epilepsy) • Other sectors haven't fully understood their role in NCDs control and prevention • ICC still at a technical level; needs to be at a higher level • Industry interference e.g. fast food companies, tobacco industry • Trade interests' and industry interference vis a vis health • Infrastructure does not allow healthy living e.g. no walking lanes • Myths and misconception

2.8   Conceptual Framework
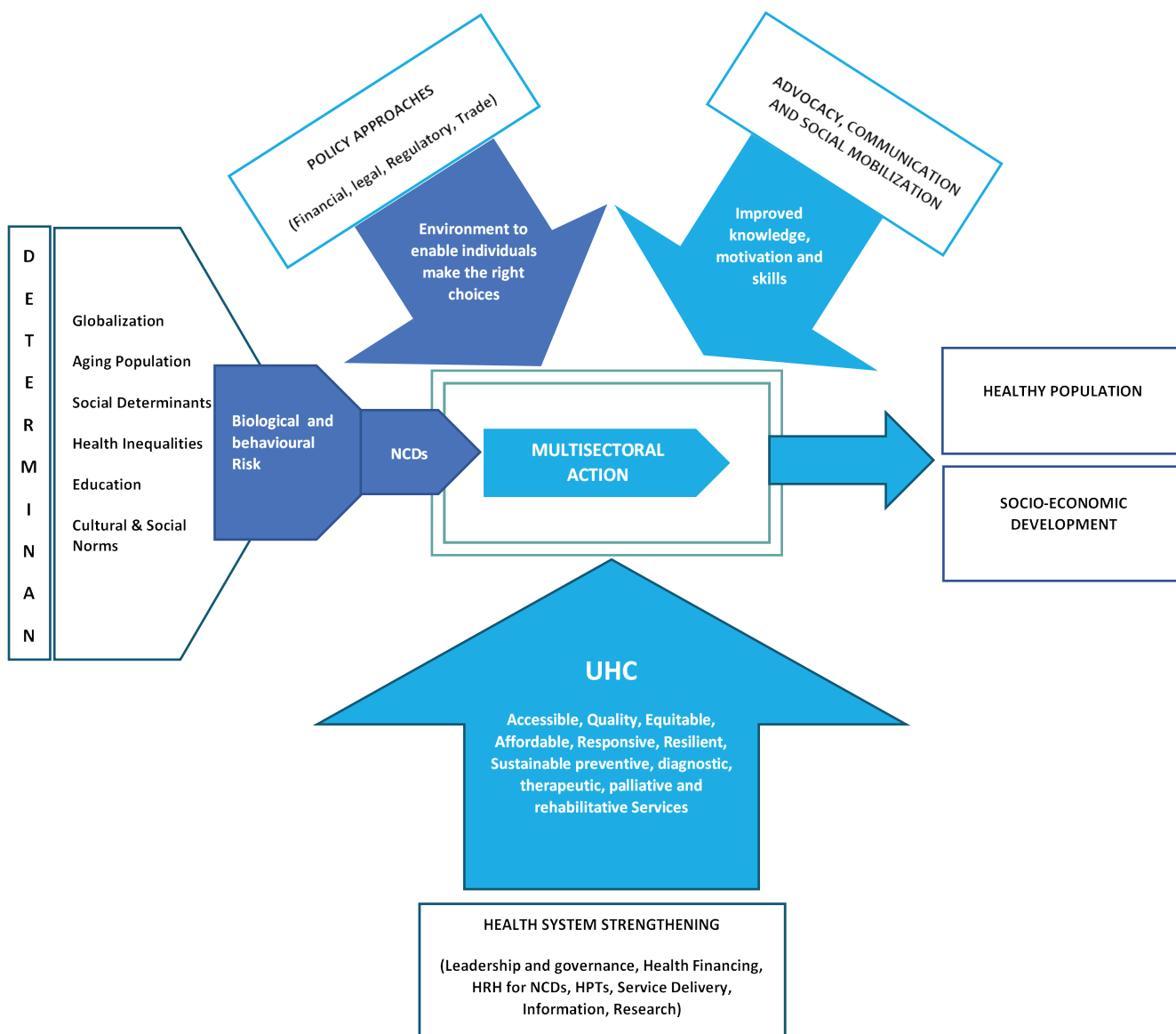
Figure 5: The Conceptual Framework

CHAPTER 3

STRATEGIC DIRECTION

REPUBLIC OF KENYA

MINISTRY OF HEALTH

3   CHAPTER THREE: STRATEGIC DIRECTION

3.1   Rationale

Non-communicable diseases (NCDs) are a major public health concern and a hindrance to long-term economic growth. Investing in NCDs has been proven to contribute to reduced health care costs and increased economic development. If more aggressive action is not taken, the NCD burden threatens Kenya's quest to advance Universal Health Coverage (UHC), a central pillar of the health reforms agenda that includes prevention and care for NCDs. Tackling NCDs is vital to achieving global and regional commitments such as the Sustainable Development Goals (SDG), Global NCD Action Plan 2013-2020 and attainment of national commitments such as Vision 2030.

The development of the Kenya National NCD Strategic Plan 2021/2-2025/6 is informed by the need to strengthen comprehensive multi-sectoral response to the increasing NCD burden. It aims to consolidate and sustain the gains made in the preceding NCD Strategic Plan 2015-2020, address the gaps and recommendations identified during its evaluation, as well as respond to emerging issues and trends. It places emphasis on population-wide prevention and control measures, as well as strengthening health systems for the whole continuum of care for NCDs. Costing of the Strategy will inform resource mobilization efforts towards adequate financing for NCD interventions.

This Strategic Plan provides a multisectoral approach towards NCD prevention and control by accelerating efforts to reduce suffering, disease, and death, thus contributing towards the national aspiration of halting and reversing the burden of NCDs.

3.2   Vision Statement

A nation free from preventable burden of NCDs.

3.3   Mission Statement

To halt and reverse the rising burden of NCDs through effective multisectoral collaboration and partnerships by ensuring Kenyans receive the highest attainable standard of NCD continuum of care that is accessible, affordable, quality, equitable and sustainable thus alleviating suffering, disease and death for their well-being and socio-economic development.

3.4   Goal

The overall target of the NCD prevention and control Strategic plan is to ensure reduction by a third the premature mortality due to NCDs by 2025

3.5   Guiding Principles

Equity: There will be no exclusion or social disparities in the provision of healthcare services. NCD programs will seek to reduce inequities between groups and geographical areas in the vulnerability and health outcomes of NCDs and their risk factors Services shall be provided equitably to all individuals in a community, irrespective of their gender, age, education, caste, colour, geographical location, tribe/ethnicity, and socioeconomic status. The focus shall be on inclusiveness, non-discrimination, social accountability, and gender equality.

Universal coverage: All people should have full access to health care and other services for prevention and control of NCDs based on needs regardless of age, gender, economic and social status, political standing, presence of disability and ability to pay.

Right-based approach: The Constitution of Kenya provides that every person has the right to the highest attainable standard of health which includes, the right to receive health services and not be denied emergency medical treatment and care. A participatory right-based approach should be applied when potential for improved outcomes exists.

Multisectoral approach: A multisectoral approach is based on the recognition of the importance of the social determinants of health in attaining the overall health goals. NCD interventions should be initiated and implemented with relevant stakeholders including public and private sector, civil society, and the international community. Public sector engagement should include health-in-all policies and whole of government approaches.

Evidence based approach: Strategies for prevention and control of NCDs should be guided by scientific evidence and public health principles and must be protected from undue influence. Similarly, available care should be appropriate and optimized for each cohort taking into a count the unique challenges and needs of each.

Life course approach: NCDs prevention activities must take into account that the risk of NCDs starts earlier on in life and starts at pre-conception, during pregnancy at infancy and continue throughout adult life.

People-centred approach: Healthcare services and health interventions will be based on people's legitimate needs and expectations. This necessitates meaningful community involvement and participation in deciding, implementing, and monitoring interventions. To the extent possible, interventions would respect the cultural sensibilities of the communities in which they will be implemented.

Primary health care approach: NCD prevention, treatment and care services will be available, accessible, and affordable at all levels of care from the community level. NCDs prevention and control services must be provided along the continuum of care with services spanning from primary, secondary, and tertiary levels.

Integrity and accountability: Healthcare service delivery systems will be reoriented towards the application of principles and practices of social accountability, including reporting on performance, creation of public awareness, fostering transparency, and public participation in decision making on health-related matters. The strategy uses existing structures to ensure accountability to government, funding partners and the communities served in terms of resource utilization, service provision and health outcomes achieved at all levels of the health sector.

Gendered responsive Approach to NCD Prevention and control: Gender is a key social determinant of health, it has effects on the prevention and control NCDs and their associated risk factors. NCDs affect men, women, boys, and girls. Being male or female influences health-seeking behaviours and ability to access health information and services. Similarly, gender biases may affect the provision of services as health professionals are often not trained to consider gender dynamics and power imbalances in their service delivery. Gender norms and roles put girls, women, boys, and men at different levels of exposure and vulnerability to NCD risk factors. Levels of physical activity, diet, tobacco and alcohol consumption, and exposure to air pollution, are heavily influenced by what constitutes masculine and feminine behaviours and associated societal expectations and discrimination. The strategy recognizes all these biases and seeks to adopt a gendered approach to NCD prevention and control.

Innovation and technology: Health technologies have a critical role in the prevention, diagnosis and treatment of illness and disease. Health Technologies aims to help make available the benefits of technologies, particularly to communities in resource-limited settings, to effectively control important health problems. Successful health care delivery requires effective medical devices as tools for prevention, diagnosis, treatment, and rehabilitation. The integration of health information technology (IT) into primary care includes a variety of electronic methods that are used to manage information about people's health and health care, for both individual patients and groups of patients. The use of health IT can improve the quality of care, even as it makes health care more cost effective.

3.6   Scope

The strategic plan strives to be all-inclusive to provide general direction for majority of the NCDs and risk factors of public health concern. While an attempt has been made in this NSP to address all NCDs and their determinants, it is also noted that some of them have substantive National strategic plans of their own addressing them specifically and more comprehensively and thus reference will be made pointing some interventions to these policy documents where the substantive mandate and authority lies to create functional linkages, synergy and policy coherence.

The scope of Non-Communicable Diseases and conditions Include:

1. Cardiovascular Diseases

2. Cancer

3. Diabetes

4. Chronic Respiratory Diseases

5. Mental Health Disorders

6. Violence and injuries

7. Hemoglobinopathies

8. Haemophilia and other bleeding disorders

9. Epilepsy and other neurological disorders

10. Auto immune diseases

11. Chronic Renal Diseases

12. Chronic skin conditions

13. Oral diseases and conditions

Risk Factors

1. Tobacco Use

2. Harmful Use of alcohol

3. Unhealthy diets and toxins

4. Physical Inactivity

5. Indoor air pollution

6. Exposure to Environmental pollutants and toxins

7. Stress

The strategy also encompasses all cohorts:

1. Pregnancy and the new-born (up to 28 days)

2. Childhood (29 days – 59 months)

3. Children (5 – 9 years)

4. Adolescents (10-19 years)

5. Adulthood (20 – 59 years

6. Older persons (60 years and above)

CHAPTER 4

STRATEGIC INVESTMENT AREAS

REPUBLIC OF KENYA

MINISTRY OF HEALTH

4 CHAPTER FOUR: STRATEGIC INVESTMENT AREAS

4.1 Introduction

The overall expected goal or desired change for the NCD strategy is to ensure reduction by a third the premature mortality due to NCDs by 2025 to achieve a nation free from preventable burden of NCDs. To achieve the expected result a total of 5 key pillars for the Strategy has been identified. Within the Key pillars are corresponding outcomes, outputs, strategies, interventions /activities which are presented in this section.

4.2 Key Pillars

1. Sectoral and multisectoral coordination and governance
2. Minimize exposure to modifiable risk factors
3. Health system response for management of NCDs
4. Advocacy, communication, and social mobilization
5. Surveillance, monitoring, evaluation, and research

4.3 Theory of Change and logic framework

The "Theory of Change" (ToC) is a specific type of methodology for planning, participation, and evaluation that is used to promote social change. ToC relates to how and why initiatives work which can be empirically tested by measuring indicators for every expected step on the hypothesized causal pathway to impact. It is developed in collaboration with stakeholders and modified throughout the intervention development and evaluation process through an 'ongoing process of reflection to explore change and how it happens'. The pathway of change as captured in the NCD strategic plan is therefore best defined through the theory of change.

In addressing the priority gaps towards a nation free from preventable burden of NCDs, the NCD strategic plan will implement targeted strategies and key activities across the life course captured by five key pillars. Implementing the strategies is expected to contribute to the achievement of 15 impact indicators and targets. Attainment of impact results is expected to lead to achieving the vision of "a nation free from preventable burden of NCDs." This is summarised in Figure 6.
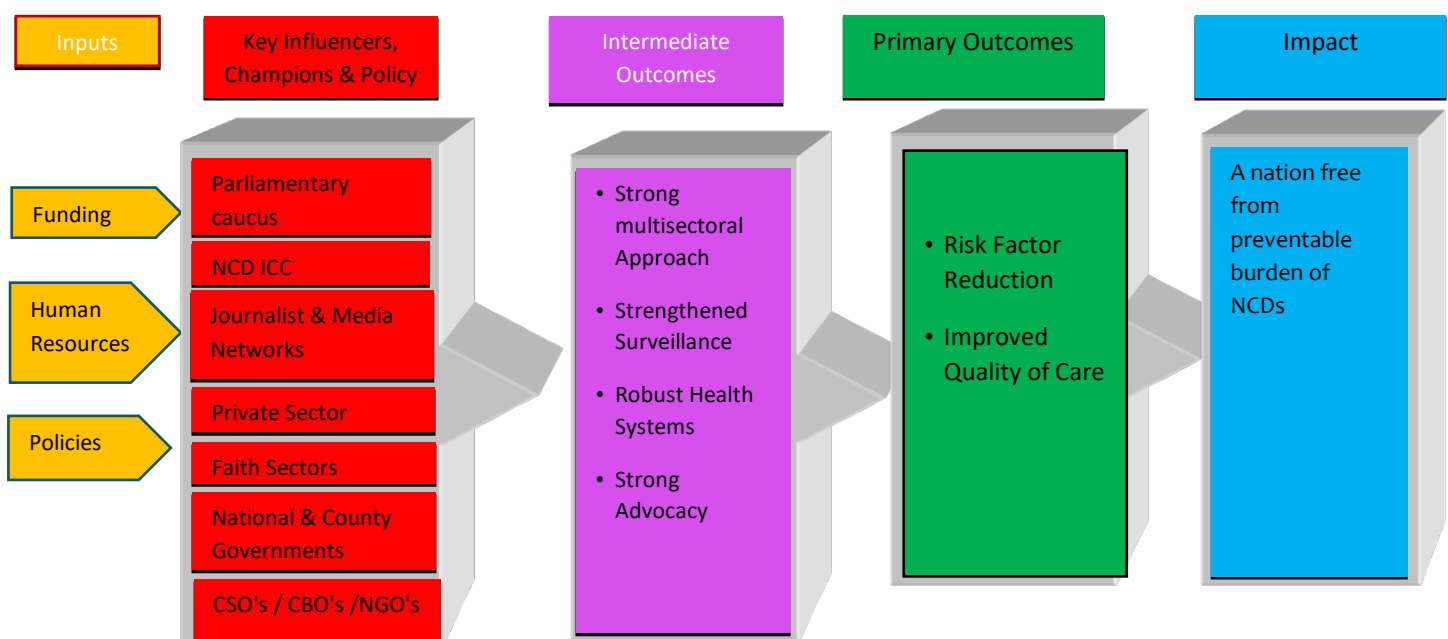
Figure 6: Theory of Change and Logical Framework

4.3.1   Pillar One - Sectoral and Multisectoral Coordination and Governance

Strategic Objective

To strengthen sectoral and multisectoral coordination, leadership and governance for harmonized prevention and response to NCDs at all levels

Key Strategies

a)   Strengthen multi-sectoral coordination

Activities

    i.   Update stakeholder's database.

    ii.   Revitalize the NCD Intersectoral Coordination Committee.

        ✓   Involve other non-health sectors in NCD-ICC.

        ✓   Hold Biannual NCD ICC steering committee forums.

        ✓   Operationalise and track implementation of ICC and TWG work plans.

    iii.   Support establishment of multi-sectoral County NCD Coordination Committees/Technical Working Groups.

    iv.   Build the capacity of the multi-sectoral committees on their roles and responsibilities.

    v.   Establish and operationalise a multi-sectoral information management system.

b)   Enhance sectoral coordination

Activities

    i.   Engage other health sector programs on the NCD Strategy and other NCD prevention and control initiatives.

    ii.   Participate in development and integration of NCDs in other health sector policies, strategic plans, and clinical guidelines.

c)   Strengthen Private Sector Partnership and Engagement

Activities

    i.   Sensitise private sector players on NCD policies, legislation, and responsible business practices.

    ii.   Develop an engagement framework with private sector in line with the PPP Act.

        ✓   Harness private sector resources in a coordinated manner.

        ✓   Minimise conflict of interest.

        ✓   Establish reporting mechanisms.

        ✓   Hold regular consultative meetings with private sector associations.

d) Strengthen leadership and governance

Activities

i. Establish a high-level National Steering Committee at Cabinet level.
ii. Build the Capacity of NCD Departments at both National, County and Sub-County levels.
iii. Develop NCDs resource tracking and accountability tool at national and county level.
iv. Conduct annual NCDs resource tracking and accountability.
v. Ensure adequate representation of NCDs in the National Health Accounts process.
vi. Develop an NCD policy.
vii. Develop regular policy briefs.
viii. Mainstream NCD prevention and control initiatives into other sector specific plans.

4.3.2 Pillar Two: Minimize Exposure to Modifiable Risk Factors
Strategic Objective

To reduce exposure to modifiable risk factors through strengthening multisectoral and community-based interventions

Key strategies

a) Strengthen relevant policy and legislative frameworks to minimise exposure to modifiable risk factors.

Activities

i. Conduct situational analysis by mapping the existing policy and legal frameworks for minimisation of exposure to modifiable risk factors.
ii. Establish national regulatory and fiscal policies to promote healthy diets (Trans-fat regulation, Regulation of marketing of unhealthy foods and non-alcoholic drinks to children, Fiscal policies on SSB, Front of pack standards).
iii. Review of Tobacco Control Act to include new emerging tobacco products.
iv. Review of the Alcoholic Drinks control Act to include new emerging trends and behaviours (tax, advertisement, watershed hours).
v. Review policies on urban and cities design to promote physical activity.
vi. Review and enact policies and legislations to limit exposure to environmental toxins and pollutants.

b) Strengthen health promotion and education through community, workplace and school-based strategies and mass media campaigns aimed at supporting behaviour change among male, females, boys, girls, and vulnerable populations.

i. Develop and disseminate health promotion messages on physical activity, healthy diets, reduction of alcohol consumption, cessation of tobacco consumption, stress reduction, environmental toxins, and pollution.

ii. Advocate for inclusion of NCD content on risk factor reduction in the CBC curriculum content.

iii. Conduct community awareness on reduction of risk factors for NCDs through the Community strategy.

iv. Conduct preschool and school based oral health programs.

c) Strengthen individual-level risk reduction through community and health facility-based approaches.

Activities

i. Scale up the routine vaccinations and prophylaxis aimed at preventing development of targeted NCDs.

ii. Scale up relevant communicable diseases vaccination among people living with NCDs to prevent their exacerbation and delay the progression of risk factors.

iii. Develop and roll out NCD risk assessment tools among the population for use by CHVs and health care workers.

4.3.3 Pillar Three: Health System Response for Management of NCDs

Strategic Objective

To strengthen the health system for provision of equitable, quality, accessible, affordable, responsive, and sustainable NCD management across the life course

Key Strategies

a) Strengthen NCD Management at Primary Health Care (PHC) in line with the PHC strategic framework 2019-2024.

Activities

i. Develop and disseminate integrated NCD model for primary health care and its implementation framework.

ii. Capacity building of CHAs and CHVs on NCD prevention and management at PHC.

iii. Integrate NCD education, institutionalize screening services, follow up (Blood pressure, blood sugar, cancer screening, mental health, Body Mass Index, and waist circumference) and

community-based commodity distribution into routine community health services and level 2 and 3 facilities in line with the Kenya Essential Package for Health.

    iv.   Provide technical support to counties for implementation of integrated NCD model for PHC.

b)   Mainstream NCDs management within the UHC agenda.

    i.   Define, develop, and disseminate essential NCD management package for UHC.

    ii.   Strengthen representation of NCD-ICC within the UHC governance to improve decision making on NCDs.

c)   Enhance human resource capacity for NCD service provision and improving availability of specialized health services.

    i.   Map human resource for NCD needs across all levels of care.

    ii.   Align and implement HRH needs for NCD at national and county levels as per the national HRH Strategy.

    iii.   Strengthen capacity of service providers to meet demand for NCD service delivery.

    iv.   Develop and implement trauma care framework.

d)   Ensure a sustainable and resilient supply chain system providing quality, affordable and accessible essential HPTs for NCDs.

    i.   Review the essential HPT lists for NCD management (Medicines, Medical supplies, lab essential technologies and assistive devices).

    ii.   Train health managers on HPT management.

    iii.   Negotiate with stakeholders to address cost reduction and pooled procurement for NCD HPTs to enhance patient affordability and to promote manufacturing and preferential procurement from local manufacturers.

    iv.   Conduct national quantification and costing of NCD HPTs.

    v.   Ring fence commodity NCD funds at County level.

    vi.   Monitor pharmacovigilance and post market surveillance for NCD HPTs.

e)   Enhance quality of care for NCD management across all levels.

    i.   Develop quality improvement framework anchored in the Kenya Quality Model for Health for NCDs.

    ii.   Establish quality management systems for NCD care in line with Quality-of-Care Certification.

    iii.   Develop an NCD telehealth framework (teleconsultation, patient booking, reminders, and legal issues) anchored in the Kenya e-Health Strategy.

    iv.   Develop/review and disseminate national guidelines, job aids and referral protocols for NCDs (Diabetes, CVD, Cancer, Sickle Cell, Mental Health, Renal disease, Epilepsy, Injuries prevention and trauma care).

    v.   Strengthen integration of NCD screening and management with other health service delivery points.

    vi.   Strengthen referral pathways for NCDs.

f)   Strengthen health infrastructure for NCD management at all levels to meet the demand.

    i.   Establish comprehensive county NCD wellness centres of excellence for NCD prevention.

    ii.   Establish regional comprehensive NCD centres by 2025.

g)   Strengthen the health system to ensure achievement of integrated people centred services for PLWNCDs and other vulnerable groups including in emergency settings.

    i.   Develop a framework for establishment and management of NCD patient support groups.

    ii.   Review and disseminate package for NCD in emergencies.

    iii.   Review and disseminate the rehabilitation, palliative care, and survivorship guidelines.

4.3.4   Pillar Four: Advocacy Communication and Social Mobilisation

Strategic Objective

To strengthen advocacy, communication, and social mobilization at national, county and community level.

Key Strategies

a.   Enhance advocacy for NCDs at all levels.

Activities

    i.   Advocate for prioritization and resource allocation for NCDs interventions within the MOH.

    ii.   Develop and disseminate NCDs prevention and control advocacy, communication, and social mobilization framework.

    iii.   Integrate NCD ACSM framework with other existing communication frameworks e.g. HIV, TB, Malaria, Reproductive Health, Nutrition.

    iv.   Advocate for enactment and enforcement of NCDs risk factors regulations

    v.   Commemorate World Health NCD days.

vi. Advocate for full integration of NCDs in the UHC and PHC framework.

vii. Disseminate the NCD strategy 2021-2025 across the 47 counties.

viii. Advocate for institutionalizing and integration of NCDs prevention and control into the County Integrated Development Plans (CIDP) and other county plans.

ix. Advocate for development and implementation of NCDs prevention and control benefit package by insurance companies.

x. Disseminate NCD investment case reports and the Kenya NCDI Poverty Commission report.

b. To empower communities with knowledge and skills on prevention and control of NCDs.

Activities

i. Develop NCD prevention and management messages targeting male, female, boys, girls, and vulnerable populations.

ii. Disseminate key messages on NCDs prevention and management to the general population including the use of media and social media.

iii. Build the Capacity of PLWNCDs support groups in creating NCDs awareness.

iv. Capacity building for community resource persons (CHAS/CHVs) on NCDs prevention and control.

c. Strengthen social mobilisation action for NCDs prevention and control.

Activities

i. Mapping and capacity building for community based social mobilizers on NCDs prevention and control.

ii. Identify, support and package community and national NCD champions.

iii. Hold community engagements for special groups (Youth, Women, Men, persons with disabilities) to educate on NCD prevention and control.

4.3.5   Pillar Five: Surveillance, Monitoring, Evaluation, and Research

Strategic Objective

To promote NCD research and strengthen surveillance, monitoring and evaluation of NCDs to inform decision making and health planning.

Key Strategies

a) **Promote NCD research and knowledge translation.**

Activities

i.   Establish NCD research priorities and an implementation plan.
ii.   Identify potential sources of funding and partnership for NCD research, surveillance, and M&E.
iii.   Conduct basic, operational and implementation research on NCDs.
iv.   Conduct population level surveys to assess NCD indicators including STEPS survey.
v.   Establish a knowledge translation and dissemination framework for NCD research.
vi.   Conduct capacity building on knowledge translation.
vii.   Hold best practices sharing forums.
viii.   Generate annual NCD Burden estimates.
ix.   Establish framework for adoption of innovations and ICT in NCD surveillance and care.

b) **Create robust systems for NCD surveillance.**
i.   Create efficient integrated EMR for NCDs.
ii.   Establish disease specific registries.
iii.   Develop, disseminate, and distribute NCD data tools for surveillance and patient management.
iv.   Conduct annual data quality audits.

c) **Monitor the implementation of the NCD strategy.**
i.   Conduct annual, mid-term and end-term reviews.
ii.   Conduct support supervision to monitor implementation at the county level.
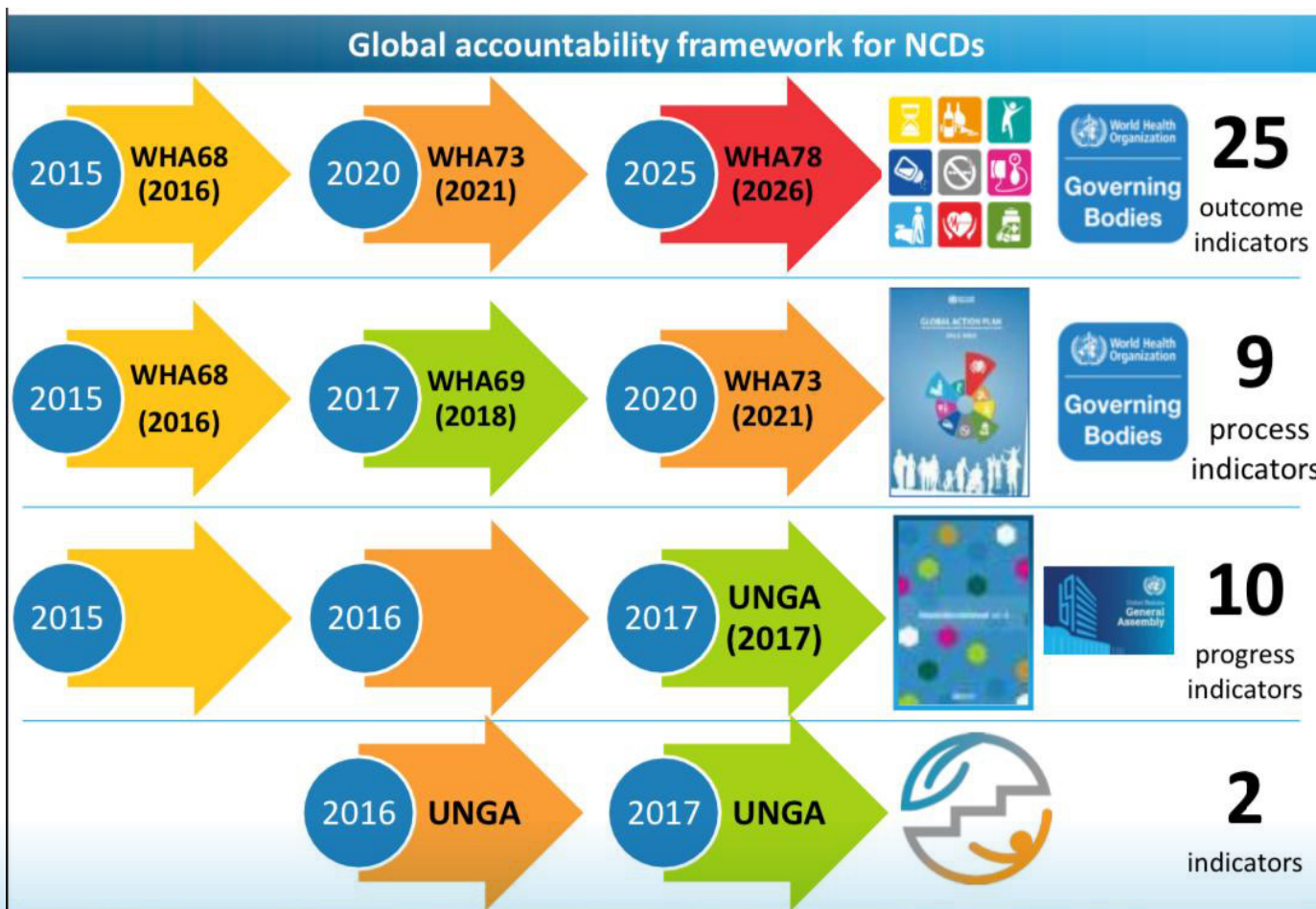
CHAPTER 5

MONITORING, EVALUATION, ACCOUNTABILITY AND LEARNING (MEAL) FRAMEWORK

REPUBLIC OF KENYA

MINISTRY OF HEALTH

5 CHAPTER FIVE: MONITORING, EVALUATION, ACCOUNTABILITY AND LEARNING (MEAL) FRAMEWORK

5.1 Introduction

This chapter provides guidance on the monitoring, evaluation, accountability and learning process of the NCD strategic plan. Monitoring and evaluation will systematically track the progress of suggested interventions and assesses the effectiveness, efficiency, relevance, and sustainability of these interventions. The generated information will inform the implementers, decision makers and various stakeholders as to whether the NCD program is on track, and when and where modifications may be needed. Regular monitoring will identify challenges and successes with an aim of evidence-driven decisions.

It will be critical to have a transparent system of joint periodic data and performance reviews that will involve key health stakeholders who use the information generated from it. Stakeholders will be encouraged to align with the reporting tools and processes and avoid operating in silos. For ownership and accountability, the NCD department will maintain an implementation tracking plan which will keep track of review and evaluation recommendations and feedback.

The NCD strategy M&E framework will therefore ensure:

- Alignment of stakeholders' resources and actions to strengthen prioritized NCDs interventions.
- Evidence-based decision-making through ensuring timely availability of good-quality evidence that is effectively disseminated.
- Continued progress monitoring, reporting through regular and systematic tracking of the progress of implementation of the NCD strategy.
- Constructive evidence-based policy dialogue to facilitate evidence-informed decision making.
- That operational research capacity is strengthened to generate evidence to inform decision-making.
- Data availability and evidence on NCD prevention among young people (10-24 years)
- Documentation of lessons learnt in NCD strategy implementation to promote learning, institutional memory and linking of NCD programmes with research and training.

5.2 Purpose of the MEAL Plan

The NCD Monitoring, Evaluation, Accountability and Learning meal (MEAL) Plan aims to provide strategic information needed for evidence-based decisions at national and county levels through development of a Common Results and Accountability Framework (CRAF). The common results and accountability framework (CRAF) refers to the set of key impact indicators and targets that have been selected by the stakeholders.

The CRAF will form the basis of one common results framework that integrates the information from the various sectors relevant for NCD programming resulting in overall improved efficiency, transparency, and accountability.

The MEAL Plan outlines what indicators to track when, how, by whom and data that will be collected, and suggests the frequency and the timeline for collective, program performance reviews with stakeholders.

The evaluation plan will elaborate on the periodic performance reviews/surveys and special research that complements the knowledge base of routine monitoring data. To ensure gender integration at all levels of the NCD strategy implementation, all data collected, analysed, and reported on will be disaggregated by sex and age to provide information and address the impact of any gender issues and relations including benefits from the NCDs programming between men and women.

5.3   Common Results and Accountability Framework (CRAF)

Fifteen (15) high impact indicators constitute the CRAF and if achieved will contribute significantly to the desired change in line with the global and national commitments. Table 3 details the baseline data and end-term target as well as the sources for these indicators. The impact indicators are targets have been informed by: The World Health Assembly (WHA) six targets for 2025; the Global Action Plan for Non-Communicable Diseases (NCD) and the Kenya health sector strategic plan [11].

Table 3: Kenya NCD impact indicators and targets for 2025/26

S/N	NCDs strategy expected results (Global targets used where applicable)	Indicator	Baseline 2020	Baseline Data Source	Target 2025
1.	Increase proportion of government allocation to NCDs.	Proportion of government allocation to NCDs (%)	48%	NHA 2017/18	60%
2.	Relative reduction in the harmful use of alcohol.	Prevalence of harmful use of alcohol (%)	12.7%	STEPS 2015	11.4% (10% Relative reduction RRD)
3.	Reduction in prevalence of insufficient physical activity.	Prevalence of insufficient physical activity (%)	6.5%	STEPS 2015	5.8% (10% RRD)
4.	Reduction in proportion of population who ate less than 5 servings of fruits and/or vegetables on average per day.	Population who ate less than 5 servings of fruits and/or vegetables on average per day (%)	94%	STEPS 2015	84.6%(10% RRD)
5.	Reduction in prevalence of current tobacco use in persons aged 15+ years.	Prevalence of current tobacco use in persons aged 15+ years (%)	13.3%	STEPS 2015	9.7% (30% RRD)
6.	Reduction in proportion of household affected by indoor air pollution.	Population with primary reliance on polluting fuels and technologies (%)	10%	WHO 2016	7% (30%) RRD
7.	Relative reduction in the prevalence of raised blood pressure by 25%	Prevalence of raised blood pressure (%)	23.8%	STEPS 2015	17.8% (25% RRD)

8.	Halting the rising burden of diabetes	Prevalence of diabetes (%)	1.9%	STEPS 2015	1.7% (10% RRD)
9.	Halting the rising burden of overweight and obesity	Prevalence of overweight and obesity (%)	27.9%	STEPS 2015	25.8% (10% RRD)
10.	At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes	Proportion of eligible people receiving drug therapy and counselling to prevent heart attacks and strokes (%)	6.2%	STEPS 2015	50%
11.	Availability of affordable HPTs for NCDs Management in both public and private facilities	Proportion of public and private facilities with essential/tracer HPTs for NCDs Management (%)	Diabetes -63% CVD- 55% CRD -49% Cervical cancer – 32% Mental health - 70%	HFA 2018/19	Diabetes - 80% CVD- 80% CRD -80% Cervical cancer – 80% Mental health - 80%
12.	Increase in women aged 25-49 years screened for cervical cancer	Proportion of women aged 25-49 years screened for cervical cancer (%)	16%	STEPS 2015	50%
13.	Increase in HPV immunization coverage for 10-year-old girls	Proportion of 10-year-old girls who have received HPV vaccine. (%)		KHIS (2020)	90%
14.	Reduce the suicide rate	Age standardized suicide rate (%)	5.6 per 100,000	WHO 2015	2.8 per 100,00
15.	Reduce the overall occurrence of serious injuries.	Overall occurrence of serious injuries (%)	15%	STEPS 2015	10%

A second tier of indicators and targets that will be used to measure the success of implementation of the strategic plan is outlined below:

Table 4: Additional Key Indicators and targets

S/N	NCDs strategy expected results (Global targets used where applicable)	Indicator	Baseline 2020	Baseline Data Source	Target 2025
1.	Improved management of diabetes cases.	Proportion of persons living with diabetes achieving control (HbaIC <7)	None	KHIS	40%
2.	Efficient management of hypertension cases.	Proportion of persons living with hypertension achieving control (< 140/90)	3.4%	STEPS 2015	50%

3.	Increase in HBV immunization coverage for Infants	Proportion of infants who have received HBV vaccine. (%)	83%	UNICEF 2019	90%
4.	Improvement in screening of breast cancer among women aged 40-75	Proportion of women aged 40-75 years screened for breast cancer using mammograph. (%)	1%	NCCP	20%
5.	Increase in screening for colorectal cancer among people aged above 45 years	Proportion of persons above 45 years screened for colorectal cancer using FOBT (%).	1%	NCCP	12%
6.	Reduction in individuals with raised cholesterol	Reduction in proportion of individuals with raised cholesterol (%)	10%	STEPS 2015	5%
7.	Reduce the burden of road traffic injuries	Road traffic mortality rate	7.36/100,000	NTSA 2020	5.52/100,000
8.	Reduce the burden of dental carries in children	Prevalence of dental carries In children	23.9%	Oral Health Survey 2015	17.9%

5.4   Monitoring process

To achieve a robust monitoring system, effective policies, tools, processes, and systems should be in place and disseminated. The critical elements to be monitored are resources (inputs); service statistics; service coverage/outcomes; client/patient outcomes (behaviour change, morbidity); investment outputs; access to services; and impact assessment.

5.4.1   Monitoring Reports

The following are the monitoring reports and their periodicity, See table 5:

Table 5: Monitoring Reports

Process/Report	Frequency	Responsible	Timeline
Annual Work Plans	Yearly	All divisions	End of June
Surveillance Reports	Weekly	DSC and health facility in charge.	COB Friday
Health Data Reviews	Quarterly	All divisions	End of each quarter
Monthly reports submissions	Monthly	Facilities,	5th of every month
Quarterly reports	Quarterly	All divisions	After 21st of the preceding Month

Annual performance Reports and reviews	Yearly	All divisions	Begins July and ends November
Expenditure returns	Monthly	All levels	5th of every month
Surveys and assessments	As per need	NCDs department	Periodic surveys

5.5   Evaluation of the NCD Strategic Plan

Evaluation is intended to assess progress made towards achieving the results contained in the NCDs strategic plan by tracking efforts and achievement across implementation period of strategic plan by all stakeholders. A midterm review and an end evaluation will be undertaken to determine the extent to which the objectives of this strategic plan are met.

Indicators and information sources

The Indicators that will guide monitoring of this NCD strategic plan are outlined in the tables below;

5.6   Output indicators

Table 4: Key pillar 1: Sectoral and multisectoral coordination and governance

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Strengthen multi-sectoral coordination at all levels	1.1. Update stakeholder's database	Stakeholder database updated	Number of stakeholders updated in the NCD navigator	#	NCD Navigator tool	Annually	93	2020	98	103	108	113	118
	1.2. Revitalise the NCD Intersectoral Coordination Committee	Involvement of non-health sector in NCD-ICC	Number of additional non-health stakeholders in NCD-ICC	#	NCD-ICC minutes/report	Annually	7	2020	12	14	16	18	20
	1.3. Support establishment of multi-sectoral County NCD Coordination Committees/Technical Working Groups	1.3.1. County NCD Coordination Committees established	Number of Counties with established NCD Coordination Committees	#	County implementation reports	Annually	0	2020	10	10	10	9	8
	1.4. Build capacity of multi-sectoral committees on their roles and responsibilities	1.4.1. Empowered multi-sectoral member committees at County level	Number of trainings held	#	Training reports	Annually	1	2019	1	1	1	1	1
	1.5. Establish and operationalize the multi-sectoral information management system	1.5.1. Multi-sectoral information management system established	NCD ICC website	Qualitative	Website Link	Every 5 Years	0	2020	1				
Enhance sectoral coordination	3.1. Engage other health sector programs on the NCD Strategy and other NCD prevention and control initiatives	Health sector programs sensitized	Number of sensitizations held	#	sensitization reports	Annually	1	2020	1	1	1	1	1
	3.2. Participate in development of and integration of NCDs in other health sector policies,	Health sector policy and plans with NCD input	Number of health programs integrating NCDs in their policies	#	Health Programs Policies, Strategic	Annually	4	2019	6	8	10	12	14

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	strategic plans, and clinical guidelines		and Strategic plans		Plans and Guidelines								
Strengthen Private Sector Partnership and Engagement	2.1. Sensitize private sector players on NCD policies, legislation, and responsible business practices	Private Sector players sensitized on NCD policies, legislation, and responsible business practices	Number of meetings held	#	Meeting reports	Annually	0	2020	1	1	1	1	1
	2.2. Develop an engagement framework with private sector a. Harness private sector resources in a coordinated manner b. Minimize conflict of interest c. Establish reporting mechanisms	Engagement framework with private sector developed	Number of Engagement Frameworks in place	#	Engagement framework	Every 5 Years			0	1	0	0	0
Strengthening Leadership and Governance	4.1. Establish a high-level National Steering Committee at Cabinet Level	A high-level National Steering Committee established	National Steering Committee constituted	Qualitative	List of membership	Every 5 Years	0	2020			1		
	4.2. Build the Capacity of NCD Departments at both National, County and Sub-County levels	National, County and Sub-County NCD Department officers trained	Number of NCD Departments with staff trained	#	Training reports	Bi-annual	0	2020	50	72	72	72	72
	4.3. Develop NCDs resource tracking and accountability tool at national and county level	NCDs resource tracking and accountability tool at national and county level	Number of NCD resource tracking and accountability tools developed	#	Status reports	Every 5 Years	0	2020	0	2	0	0	0
	4.4. Conduct annual NCDs resource tracking and accountability	Annual NCDs resource tracking and accountability conducted	Number of NCDs resource tracking and accountability assessments conducted	#	Assessment reports	Annually	0	2020	1	1	1	1	1
	4.5. Ensure adequate representation of NCDs in the	NCD Expenditure data collected and analysed	Number of NCD expenditure reports	#	National Health Accounts	Annually	1	2021	1	1	1	1	1

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	National Health Accounts process												
	4.6. Develop an NCD policy	NCD policy developed	Number of NCD policies developed	#	NCD policy document	Every 5 Years	0	2020	0	1	0	0	0
	4.7. Develop regular policy briefs	Policy briefs developed	Number of policy briefs developed	#	Policy brief documents, progress reports	Bi-annual	1	2020	2	2	2	2	2
	4.8. Mainstream NCDs prevention and control initiatives into sector specific plans	NCDs mainstreamed into other sector plan	Number of other sectors incorporating NCDs in their plans	#	Sector plans	Annually	1	2020	2	4	6	8	9

Table 5: Key pillar 2: Minimize exposure to modifiable risk factors

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Strengthen relevant policy and legislative frameworks to minimize exposure to modifiable risk factors	Mapping of existing policy and legal frameworks to minimize exposure to modifiable risk factors	Mapping report produced	Mapping report of existing policy and legal frameworks to minimize exposure to modifiable	Qualitative	NCD ICC portal, Kenya Law portal	Every 5 Years	1	2020	1	1	1	1	1

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
			risk factors.										
	Establish national regulatory and fiscal policies to promote healthy diets (less salt, less sugar and fats, front of pack labelling, advertising)	Trans-fat regulation, Regulation of marketing of unhealthy foods and non alcoholic drinks to children , Fiscal policies on SSB, Front of pack standards laws developed and/or amended	Trans-fat, salt, and sweetened sugar beverage (SSB) control laws	#	Kenya law portal, relevant ministry	Every 5 Years	0	2020	1				
	Review of Tobacco Control Act to include new emerging tobacco products	Tobacco Control Act amended	Amended tobacco control act to include new emerging tobacco products	#	Kenya law portal, relevant ministry	Every 5 Years	1	2020	1				
	Review of the Alcoholic Drinks control Act to include new emerging trends and behaviours (tax, advertisement	Alcoholic drinks control act reviewed and emended.	Amended alcoholic drinks control act to include emerging issues.	#	Kenya law portal, NACADA	Every 5 Years	1	2020		1			

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	, watershed hours)												
	Review policies on urban and cities design to promote physical activity	Urban and cities policies reviewed and amended	Amended Urban Areas and Cities Act	#	Kenya law portal, relevant ministry	Every 5 Years	1	2020		1			
	Review and enact policies and legislations to limit exposure to environmental toxins and pollutants	Policies on environmental toxins and pollutants reviewed	Amended environmental toxins and pollutants laws	#	Kenya law portal, NEMA	Every 5 Years	2	2020				1	
Strengthen health promotion and education through community- and school based strategies and mass media campaigns aimed at supporting behaviour change	Develop and disseminate health promotion messages	Health promotion messages developed for the intervention risk factors	Number of risk factors with healthy messages developed	#	Division of Health Promotion, NCDAK	Every 3 Years	6	2020	3	3	4	4	6
	Advocate for inclusion of NCD risk factor reduction in	NCD risk factor reduction content	Number of NCD risk factors in	#	KICD portal	Every 3 Years	0		3	3	4	4	6

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	the CBC curriculum content	included in the CBC curriculum	the CBC curriculum										
	Conduct community awareness on reduction of risk factors for NCDs through the CHVs network	Community awareness on NCD risk factors conducted	Proportion of CU conducting awareness on NCD risk factors	%	KHIS, Assessment reports	Every 3 Years	0	2020		60%	65%	70%	75%
	Proportion of school-going children reached with school-based oral health campaigns	Preschool and school based oral health programs conducted	Number of school-based oral health campaigns held	#	Awareness campaign reports, division of school health reports	Annually	0	2020	5%	10%	20%	25%	30%
Strengthen individual-level risk reduction through community and health facility-based approaches	Scale up routine vaccinations aimed at preventing development of targeted NCDs	HPV vaccines scaled up	Proportion of adolescent girls immunized with HPV	%	KHIS	Annually		2020	60%	70%	80%	85%	90%
	Scale up routine vaccinations aimed at preventing development of targeted NCDs	Hepatitis B vaccines scaled up	Proportion of people at risk immunized with Hepatitis B	%	KHIS	Annually		2020	85%	90%	90%	90%	90%
	Scale up relevant	Communicable Diseases	Number of vaccines	#	KHIS	Every 3 Years	1	2020			5		

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	communicable diseases vaccination among people living with NCDs to prevent their exacerbation and delay the progression of risk factors	vaccines scaled up	integrated into KEPI										
	Develop and roll out NCD risk assessment tools among the population for use by CHVs and health care workers	NCD risk assessments tools developed and rolled out	Proportion of primary health facilities conducting NCD risk assessment	#	Assessment report	Every 2 Years	0	2020	5%		20%		40%

Table 6: Key pillar 3: Health system response for management of NCDS

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Strengthen NCD Management at the PHC in line with the PHC strategic framework	Develop and disseminate integrated NCD model for primary health care and its implementation framework	NCD Model and implementation framework developed	NCD model for PHC available	#	MOH website, workshop reports	Every 5 Years	0	2020	1				

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
		NCD Model and implementation framework disseminated	No. of dissemination meetings	#	Meetings registration lists, dissemination reports	Every 5 Years	0	2020	9				
	Capacity building of CHAs and CHVs on NCD prevention and management at PHC	Comprehensive training package for CHVs and CHAs on NCD prevention and screening developed	Training package available and updated periodically	#	MOH website, meeting, and workshop reports	Every 2 years	0	2020		1			
		CHAs and CHVs trained on NCD prevention and screening	Number of additional CHAs and CHVs trained on NCD prevention and screening	#	Meeting reports and attendance lists	Quarterly	30,000	2020			7,500	7,500	7,500
			Number of Screening Equipment sets purchased	#	Equipment inventory, Procurement documents	Annually	720	2020		2000	2000	2000	2000
	Integrate NCD education, institutionalize screening services and follow up (Blood pressure, blood sugar, cancer screening, Body Mass Index, and waist circumference) into routine community health services and level 2 and 3 facilities in line with the Kenya Essential Package for Health	NCD education and screening service integrated into routine community health services	Percentage of level 2 and 3 facilities with integrated NCD education and screening services available up to community level		Supervisory reports, Kenya Health Facility Assessment, SARAM	Quarterly, assessments every 2 years	38%	2020	47%	57%	66%	76%	85%
	Provide technical support to counties for implementation of integrated NCD model for PHC	Technical support on implementation of PHC model provided	No. counties provided with technical assistance sessions per year	#	Technical Assistance reports; attendance lists	Annually	0	2020		23	24	23	24

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Mainstream NCDs management within the UHC	Define, develop, and disseminate essential NCD management package for UHC	Essential NCD UHC package defined and developed	NCD UHC package available	#	MOH website, minutes of meetings	Every 5 Years	0	2020	1				
		NCD essential package disseminated with UHC stakeholders	No. of dissemination meetings	#	Meeting registration lists, dissemination reports	Annually	0	2020	1	1	1	1	1
	Strengthen representation of NCD-ICC within the UHC governance to improve decision making on NCDs	NCD-ICC representation incorporated within the UHC governance to improve decision making on NCDs	NCD-ICC representative appointed to sit in UHC governance committee	#	Letter of appointment, UHC Meeting reports	Annually	0	2020	1	1	1	1	1
Enhance human resource capacity for NCD service provision	Map human resource for NCD needs across all levels of care	NCD HR needs mapped and defined	Comprehensive NCD HR mapping report available	#	DNCD, HRH - Mapping report	Every 5 Years	0	2020		1			
	Align and implement HRH needs for NCD at national and county levels as per the HRH Strategy	NCD staff establishment with appropriate skillset and career pathways developed and defined	Guiding Manual on NCD staff establishment and career pathways available	#	Meeting reports, MOH website, DNCD	Every 5 Years	0	2020		2	1		
		HRH with needs for NCD at national and county levels aligned and implemented as per the HRH Strategy and staff establishment	proportion of appropriate skillset of staff deployed at national and county level for NCD control	#	DNCD, County NCD coordinators	Annually	0	2020		50%	60%	75%	100%
	Strengthen capacity of service providers to meet demand for NCD service delivery	Comprehensive training package for service provider on NCD management	Training package available and	#	MOH website, meeting, and	Every 2 years	0	2020		3			

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
		developed and updated	updated every two years		workshop reports								
		Service providers trained on NCD management	Number of service providers trained on NCD management	#	Meeting reports and attendance lists	Quarterly	3235	2020	2000	2000	2000	3000	4000
		Guideline on cross sharing of specialists for enhanced NCD service delivery implemented	No. of additional specialists recruited for NCD service delivery as per guidelines	#	DNCD, COG,HRH - Meeting registration lists, minutes of meetings	Annually	857	2020		160	255	229	
	Develop and Implement Trauma Care Framework	Trauma Care Framework Developed and Disseminated	Trauma Framework	Qualitative	NCC – ICC Website	Every 5 years	0	2020	1				
Ensure a sustainable and resilient supply chain system providing quality, affordable and accessible essential HPTs for NCDs	Review the essential HPT lists for NCD management (Medicines, Medical supplies, lab)	Essential HPT lists reviewed	No. of essential HPT lists reviewed	#	DNCD, DHPT - Meeting registration lists, minutes of meetings	Every 3 Years	1	2019		1			
	Train health managers on HPT management as TOTs	Health managers trained in HPT management	No. of health managers (TOTs) trained	#	DNCD, DHPT - Meeting registration lists, training reports	Every 5 Years	0	2020				235	
	Negotiate with various stakeholders to address cost reduction for NCD HPTs to enhance patient affordability	Negotiation frameworks/agreements in place	No. of negotiation frameworks/ access agreements in place	#	DNCD, DHPT - Meeting registration lists, minutes of meetings	Every 5 Years	0	2020			1		

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	Conduct national quantification and costing of NCD HPTs	Quantification and costing report available	No. of the quantification reports	#	DNCD, DHPT - Quantification reports	Every 3 Years	0	2020			1		
	Ring fence commodity NCD funds at County level	NCD Commodity funds ring-fenced	No. of forums held, number of counties ring-fencing NCD funds	#	DNCD, DHPT - Meeting registration lists, dissemination reports	Annually	0	2020		47			
	Monitor pharmacovigilance and post market surveillance for NCD HPTs	Pharmacovigilance and post market surveillance reports for NCD available	No. of PV and PMS reports	#	DNCD,PPB	Bi-annual	0	2020	2	2	2	2	2
Enhance quality of care for NCD management across all levels	Develop quality improvement framework anchored in the Kenya Quality Model for Health for NCDs	NCD quality improvement framework developed	No. of NCD quality improvement framework developed and disseminated	#	DNCD - Meeting registration lists, minutes of meeting	Every 5 Years	0	2020		1			
	Establish quality management systems for NCD care in line with Quality of Care Certification Framework for the Kenyan Health Sector 2020	Quality Management Systems established to ensure NCD quality improvement at all service delivery points	Number of facilities per county with relevant NCD QMS teams and SOPs in place	#	QMS reports	Annually	0	2020		4	4	4	4
	Develop an NCD telehealth framework (teleconsultation, patient booking, reminders, and legal issues)	NCD Telehealth framework developed	NCD telehealth framework	Qualitative	DNCD, HIS - Meeting registration lists, minutes of meeting	Every 5 Years	0	2020	1				
	Develop/review and disseminate national guidelines, job aids and referral protocols for NCDs (Diabetes, CVD, Cancer, Sickle Cell, Mental Health, Renal	NCD guidelines/job aids/protocols developed	Number of guidelines/protocols developed	#	MOH website	Bi-annual	6	2020		8		10	

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	disease, Epilepsy, Injuries prevention and trauma care)												
	Integrate NCD screening, diagnosis, and management into other service delivery points	NCD services integrated into other service delivery points (such as TB-DM bidirectional screening, HTN and HIV, cervical cancer and HIV, mental health etc.)	Number of NCDs integrated into other service delivery points	#	Integration reports	Annually	1	2020	1	1	1		
	Strengthen referral pathways for NCDs	Referral pathways for NCD strengthened	Number of referral SOPs developed	#	MOH website	Every five years	0	2020			1		
Strengthen health infrastructure for NCD management at all levels to meet the demand	Establish comprehensive county NCD wellness centers of excellence for NCD prevention	Comprehensive County NCD wellness centers of excellence established	Number of comprehensive county NCD wellness centers of excellence established	#	Facility assessment and service readiness reports in the NCD ICC website	Annually	0	2020	1	1	1	1	1
	Establish five regional comprehensive NCD centers by 2025	Five additional comprehensive regional NCD centers established	No. of additional regional comprehensive NCD centers	#	NCD ICC website	Annually	5	2020	1	1	1	1	1
Strengthen the health system to ensure achievement of integrated people centred services for PLWNCDs and other vulnerable groups including in emergency settings	Develop a framework for establishment and management of NCD patient support groups	Framework for establishment and management of NCD patient support groups developed	NCD support groups framework developed	Qualitative	NCD ICC website	Every 5 Years	0	2020		1			

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	Review and disseminate a package for NCD in emergencies	NCDs emergencies package reviewed and disseminated	Reviewed NCDs in emergencies package	Qualitative	DNCD - Meeting registration lists, minutes of meeting	Every 5 Years	0	2020	1				
	Review and disseminate the rehabilitation, palliative care, and survivorship guidelines	Guidelines reviewed and disseminated	Reviewed palliative care, rehabilitation and survivorship guidelines	Qualitative	DNCD - Meeting registration lists, minutes of meeting	Every 5 Years	1	2013			1	1	1
			No of regional Dissemination forums for palliative care, rehabilitation, and survivorship guidelines	#	NCD ICC website	Annually	0	2020				5	5

Table 7: Key pillar 4: Advocacy, communication, and social mobilization

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Enhance advocacy for NCDs at all levels	Advocate for prioritization and resource allocation for NCDs interventions within the MOH	NCDs interventions prioritized and budgeted for within the MOH budget	Increased proportion of total health expenditure allocated to NCDs	%	MOH annual Budget	Annually	6.5	2015/16	11.5	16.5	21.3	26.5	31.5
	Develop and disseminate NCDs prevention and control advocacy, communication, and social mobilization framework	A standard NCD advocacy framework developed	National NCDs advocacy framework disseminated to the counties and	#	MOH reports	Annually	0	2020	1	26	21		

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
			national stakeholders										
	Integrate communication framework with other communication frameworks e.g. HIV, TB, Malaria, RH	NCDs information integrated in existing systems	No. of programs with NCD prevention and control integrated	#	Program communication reports	Annually	0	2020	1	1	1	1	1
	Advocate for enactment and enforcement of NCDs risk factors regulations	NCDs Risk factors regulations enacted and enforced	No. of regulations enacted (SSB, Salt and trans fats)	#	http://www.kenyalaw.org/	Annually	0	2020		1	1	1	
	Commemorate world Health NCD days	World Health NCD days commemorated	Number of world health NCD days commemorated	#	NCD ICC website	Annually	10	2020	15	15	15	15	15
	Advocate for comprehensive integration of NCDs in the UHC and PHC framework	NCDs comprehensively integrated in the UHC package and PHC framework	No of NCDs comprehensively covered in the UHC package and PHC framework	#	UHC benefits package	Annually	0	2020	3	2	2	2	
	Disseminate the NCD strategy 2021-2025 across the 47 counties	NCD strategy disseminated	No of Counties dissemination forums held	#	MOH reports	Annually	0	2020	23	24	0	0	0
	Advocate for integration of NCDs Strategy into the County Integrated Development plans (CIDP) and other county plans	NCDs prevention and control Integrated in to the CIDPs	No. of counties with NCD strategy integrated into the CIDPs	#	CIDPs repository (http://repository.kippra.or.ke/)	Every 5 year		2020			47	47	
	Advocate for development of NCDs prevention and control package by insurance companies	NCD Prevention and control packages for insurance companies developed	No. of insurance companies implementing the NCD prevention and control package	#	Insurance companies	Annually			6	7	5	9	10

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	Disseminate NCD investment case reports and the Kenya NCDI Poverty Commission report	NCD investment case and NCDI report disseminated	No of stakeholders disseminated to	#	NCD ICC portal	Once in 5 years	0	2020	50				
To empower communities with knowledge and skills on prevention and control of NCDs	Develop NCD prevention and management messages targeting men women, boys, girls, and other vulnerable population	Key NCDs and Risk factors messages developed	No NCDs key messages developed (NCDs and their risk factors	#	NCD-ICC websites	Annually	0	2020	9	5			
	Disseminate key messages on NCDs prevention and management to the general population including in the use of media and social media	Key NCDs prevention and management messages disseminated	No of people reached with NCDs key messages	#	Survey reports	Annually		2020	2M	4M	6M	8M	10M
	Build the Capacity of PLWNCDs support groups in creating NCDs awareness	PLWNCD groups trained on NCDs	No of PLWNCDs support trained on NCDs	#	MOH Training reports	Annually	0	2020		60	60	60	55
	Capacity building for community based resource persons (CHAs and CHVs on NCDs prevention and control	Community based resource persons trained	No of community based resource persons trained annually	#	Training reports	Bi-annual			470	470	470	470	470
Strengthen social mobilization action for NCDs prevention and control	Mapping and Capacity building of social mobilisers	Social mobilisers mapped and trained	No. of Social mobilisers meeting held	#	MOH reports	Annually	0	2020	5	100	100	100	100
	Identify, support and package community and national NCD champions	Community and National NCD Champions engaged	No. of NCD champions engaged	#	NCD champions data-base	Annually	0	2020	10	10	10	10	10

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	Hold community engagements for special groups (Youth, Women, Men, persons with disabilities) to educate on NCD prevention and control	Special groups community meetings heal	No. of special group meetings held		NCD-ICC portal	Annually	0	2020		47		47	

Table 8: Key pillar 5: Surveillance, monitoring, evaluation, and research

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Promote NCD research and knowledge translation.	Establish NCD research priorities and an implementation plan	Research agenda developed and widely disseminated	Consensus report with list of NCD research priorities	#	NCD ICC website	Every 5 Years	0	2020	1				
		NCD research implementation plan developed including pathway to impact and actors.	NCD research Implementation plan	Qualitative	Workshops; Meetings	Every 5 Years	0	2020		1			
	Identify potential sources of funding and partnership for NCD research, surveillance, and M&E	Generated list of funding opportunities.	Report on funding and partnership opportunities	#	NCD Resource Mobilization TWG minutes/NCD ICC website	Annually	0	2020	1	1	1	1	1
	Conduct basic, operational and implementation research on NCDs	Evidence/Policy briefs/Reports/Publications	Number of NCD research conducted within the country	#	Research Repository	Annual	0	2020	30	30	40	50	60
	Conduct population level surveys to assess NCD indicators including STEPS survey	Surveys conducted.	NCDs survey report	Qualitative	NCD ICC website	Every 5 Years	1	2020	1				

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
	Establish a knowledge translation and dissemination framework for NCD research	NCD knowledge translation and dissemination framework developed	NCD knowledge translation and dissemination framework	Qualitative	NCD-ICC website	Every 5 Years	0	2020				1	
	Hold best practices sharing forums	Best practices forums held	Numbers of forums held	#	Forum Reports NCD-ICC Websites	Annually	3	2020	1	1	1	1	1
	Generate annual NCD Burden estimates	Annual NCD burden estimates	Annual NCD burden Estimates Report	Qualitative	NCD ICC website	Annually	0	2020		1	1	1	1
	Establish framework for adoption of innovations and ICT in NCD surveillance and care	Innovations framework developed	Innovations Framework	#	NCD ICC website	Annually	0	2020		1		1	
Create robust systems for NCD surveillance	Create efficient integrated EMR for NCDs	NCD modules added to existing EMRs	Number of existing EMRs with NCD modules	#	EMR development workshop minutes, EMR survey report	Every 5 Years	1	2020	1				
	Establish disease specific registries	Registries established	Number of disease specific functional registries	#	Registers; Meeting minutes; Training reports	Annually	3	2020	1	1	1	1	1
	Develop, disseminate, and distribute NCD data tools for surveillance and patient management	NCD data tools for priority NCDs developed and rolled out	Number of NCD disease areas with tools developed, disseminated, and distributed	#	NCD tools development and dissemination reports in the NCD ICC website	Annually	2	2020	2	3	3	4	5
			Number of NCDs with reports in KHIS	#	Reports for specific NCD disease areas in KHIS	Annually	2	2020		3		5	
	Conduct annual data quality audits	Data quality audits conducted	Number of data quality audits done at facility level	#	NCD ICC website	Annually	30	2020	20	60	60	60	60

Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Expected Outputs	Output Indicators	% or #	Source of Data	Periodicity	Baseline Data	Year	2021	2022	2023	2024	2025
Monitor the implementation of the NCD strategy	Conduct annual, mid-term and end-term reviews	Periodic reviews conducted	Number of annual reviews conducted	#	NCD ICC website, Review report	Annually	0		1	1	1	1	1
	Conduct support supervision to monitor implementation at the county level	Support supervision conducted	Number of counties supervised	#	NCD ICC website,	Annually	0	2020	10	20	30	40	47

5.7   Calendar of key M&E Activities

The NCDs strategy will adhere to the health sector accountability cycle as illustrated in the figure below. This will ensure the alignment of resources and activities to meet the needs of different actors in the health sector.
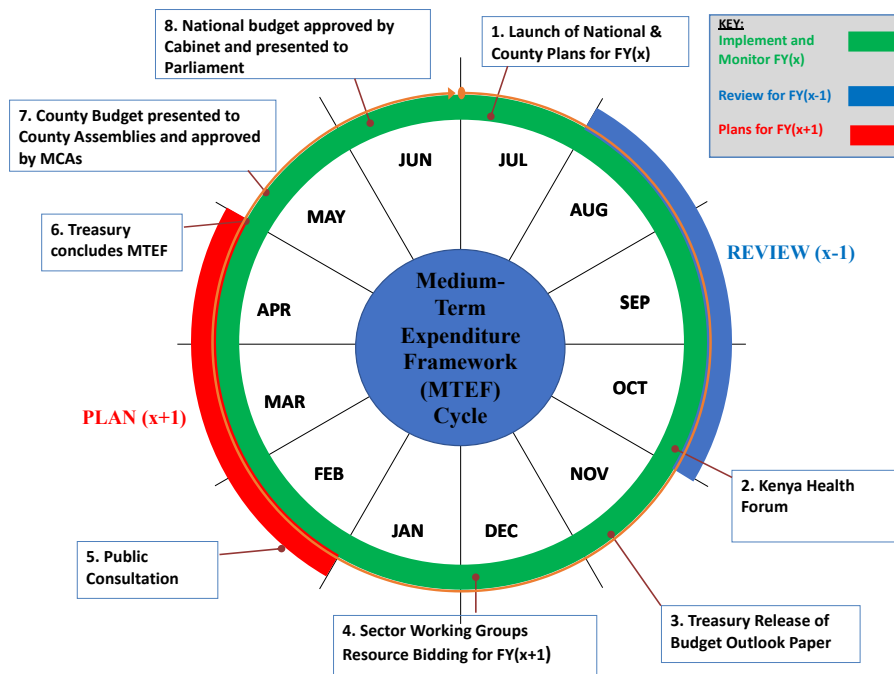
Figure 7: National Health Sector Accountability Cycle

5.7.1   Updating of the Framework

Regular update of the M&E framework will be done based on learnings experienced along the implementation way. It will be adjusted to accommodate new interventions to achieve any of the program-specific objectives. A mid-term review of the framework will be conducted in 2022/23 to measure progress of its implementation and hence facilitate necessary amendments.

5.8   Implementation of the NCD Strategic Plan

In order to implement this Strategic Plan effectively, the NCD Division and all stakeholders will continue to address structural bottlenecks and enhance capacity building within itself, engage all the stakeholders for their contribution and promote innovativeness, creativity, and professionalism towards realization of the strategic plan.

Appendix 1 provides a detailed implementation plan.

CHAPTER 6

RESOURCE REQUIREMENTS

REPUBLIC OF KENYA

MINISTRY OF HEALTH

6 CHAPTER SIX: RESOURCE REQUIREMENTS

6.1 Introduction

This chapter describes in detail the level of resource requirements for the strategic plan period, the available resources, and the gap between what is anticipated and what is required. In the first section, cost estimates are tabulated. In the second section, the available resources are tabulated and discussed. Finally, in the third section, the resource gaps for the plan period are provided by comparing resources required (cost estimates) with the resources available. Overall, this information on costs, resources available, and the financing gap should assist stakeholders to develop realistic annual budgets without which annual operational plans cannot be designed or implemented in a more effective way.

6.2 Resource Requirements for NCD Strategy Implementation

The NCD strategy was costed using the Activity-Based Costing (ABC) approach. The ABC uses a bottom-up, input-based approach, indicating the cost of all inputs required to achieve plan targets. ABC is a process that allocates costs of inputs based on each activity, it attempts to identify what causes the cost to change (cost drivers); All costs of activities were traced to the product or service for which the activities are performed. The flow of the methodology under the ABC approach will be as follows; (i) The activities require **inputs,** such as labor, conference hall etc.; (ii) These inputs are required in certain **quantities,** and with certain **frequencies;** (iii) It is the product of the **unit cost**, the **quantity**, and the **frequency** of the input that will give the **total input cost;** (iv) The sum of all the input costs give the **Activity Cost.** These are added up to arrive at the **Output Cost,** the **Objective Cost,** and **eventually the budget**.

In the absence of quantification reports for all NCDs (only available for hypertension and diabetes-obtained from the NCD Forecasting Tool), the intervention costs were estimated using the One Health Model to generate the cost estimates. The costs are based on data derived from program-specific strategic targets, published documents on unit costs, and interviews with key experts in health-related fields.

The One Health Model is a tool for medium to long term (3-10 years) strategic planning in the health sector at national level. One Health model computes the cost implications of achieving the targets set under the disease programs and for the health system.

The model provides health sector planners with a single framework. The tool facilitates an assessment of costs related to the program areas to inform progress towards the Sustainable Development Goals, including assessment of achievable health impact. In addition, it contains modules for the areas of human resources, infrastructure, logistics, financial space, program and channel analysis, intervention coverage and costing, bottleneck analysis, program costing, summary outputs, and budgeting.

The multilateral development of the One Health model has leveraged the best components of different prior costing tools and is also designed in a modular fashion to allow for program-specific costing, and sector-wide costing.

6.2.1   Summary cost estimates for the NCD Strategy

The table below therefore provides summary costs estimates by categories. From the costing, KES 377 billion is required to finance the NSP over the plan period.
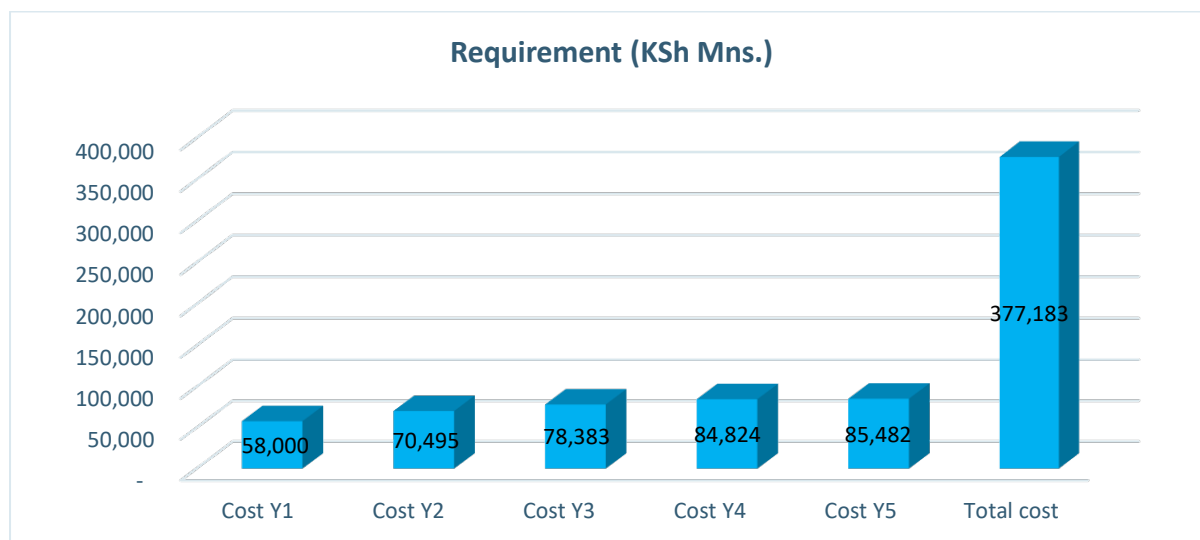
Figure 8: NCD Strategy Resource needs in KES Millions

Source: ABC Costing

Table 9: Cost estimates for the NCD Strategy by Strategic Pillars (KES Millions)

Key Pillars	Cost Y1	Cost Y2	Cost Y3	Cost Y4	Cost Y5	Total cost	Percent
Advocacy Communication and Social Mobilisation	214.9	295.9	253.4	244.7	234.4	**1,243.2**	**0.3%**
Health System Response for Management of NCDs	54,682.1	67,154.8	75,261.0	81,540.4	82,459.5	**361,097.8**	**95.7%**
Minimize Exposure to Modifiable Risk Factors	2,552.9	2,732.8	2,550.3	2,750.8	2,532.2	**13,119.0**	**3.5%**
Sectoral and Multisectoral Coordination and Governance	137.4	166.3	163.5	161.9	149.1	**778.3**	**0.2%**
Surveillance, Monitoring, Evaluation, and Research	412.6	145.5	154.5	125.7	106.6	**944.9**	**0.3%**
Grand Total	57,999.8	70,495.2	78,382.7	84,823.6	85,481.9	**377,183.3**	**100.0%**

Source: ABC Costing

Table 10: Commodity cost estimates for the NCD Strategy (KES Millions)

Non-communicable diseases	2021	2022	2023	2024	2025	Total	Percent
CVD & diabetes	19,870.1	22,993.9	26,412.8	30,150.5	35,774.8	**135,202.2**	42.2%
Cancers	13,171.4	14,144.6	15,067.7	15,780.5	16,739.3	**74,903.6**	23.4%
Tobacco cessation	1,522.3	1,570.8	1,619.9	1,669.5	1,719.1	**8,101.6**	2.5%
Injuries	11,037.6	11,287.6	11,543.6	11,806.3	12,075.4	**57,750.6**	18.0%
Sickle cell disease	83.0	84.6	86.3	88.1	89.8	**431.9**	0.1%
Hemophilia	850.0	1,000.0	1,150.0	1,400.0	1,500.0	**5,900.0**	1.8%
Epilepsy	2,923.2	3,985.9	5,095.4	6,253.7	7,462.2	**25,720.5**	8.0%
Renal disease	2,254.4	2,304.0	2,354.5	2,406.3	2,459.6	**11,778.8**	3.7%
Mental Health	124.7	127.5	130.3	133.1	136.1	**651.6**	0.2%
Total	**51,836.8**	**57,498.9**	**63,460.6**	**69,688.0**	**77,956.4**	**320,440.7**	100.0%

Source: One Health Model

6.3   Available Resources

WHO 2010 (Path to Universal Health Coverage) pinpoints out that for a country to achieve Universal Health Coverage, it should dedicate more resources to the health sector. While raising more money for health is crucial in supporting the UHC agenda, it is just as important to get the most out of the resources available. By understanding how the health systems and services are financed, programs and resources can be better directed to strategically compliment the health financing already in place, advocate for financing of needed health priorities, and aid populations to access available health services.

Secondary data sources were used to establish the available financial resources for the NCD Strategy. Government financial commitments were obtained from the Fiscal Space as captured in the MOH budget. Planning assumptions have been made about future contributions available each year of the planning period.

Table 11: Estimated and projected financial resources available by Funding source (KES millions)

Source	Cost Y1	Cost Y2	Cost Y3	Cost Y4	Cost Y5	Total	Percent
Domestic	2,414.3	1,110.3	2,416.4	1,112.6	1,114.0	**8,167.7**	**39.3%**
External	2,516.6	2,531.8	2,525.9	2,517.0	2,518.2	**12,609.4**	**60.7%**
Total	**4,930.9**	**3,642.1**	**4,942.3**	**3,629.6**	**3,632.2**	**20,777.1**	**100.0%**

Source: NCD Department

6.4   Financial Gap Analysis

The difference between the resource requirements and the available resource-based budgets provides a measure of the gap in funding which exists if the NCD Strategic Plan is to be fully implemented. The identification of the funding gap provides an opportunity for potential stakeholders to see when additional resources will be most useful.

The financing gap was estimated by generating the difference between the available resources and the cost of implementing the NCD Strategy.

The health sector requires KES 356 billion to reduce the funding gap. Table 12 summarizes the available resources and costs from the previous sections, to provide an estimate of the NCD Strategic Plan funding gap by year. Resources to bridge the gap could be mobilized from other sources like the donors and or the private sector including the households.

Figure 10: Financial gap analysis for NCD Strategy (KES millions)
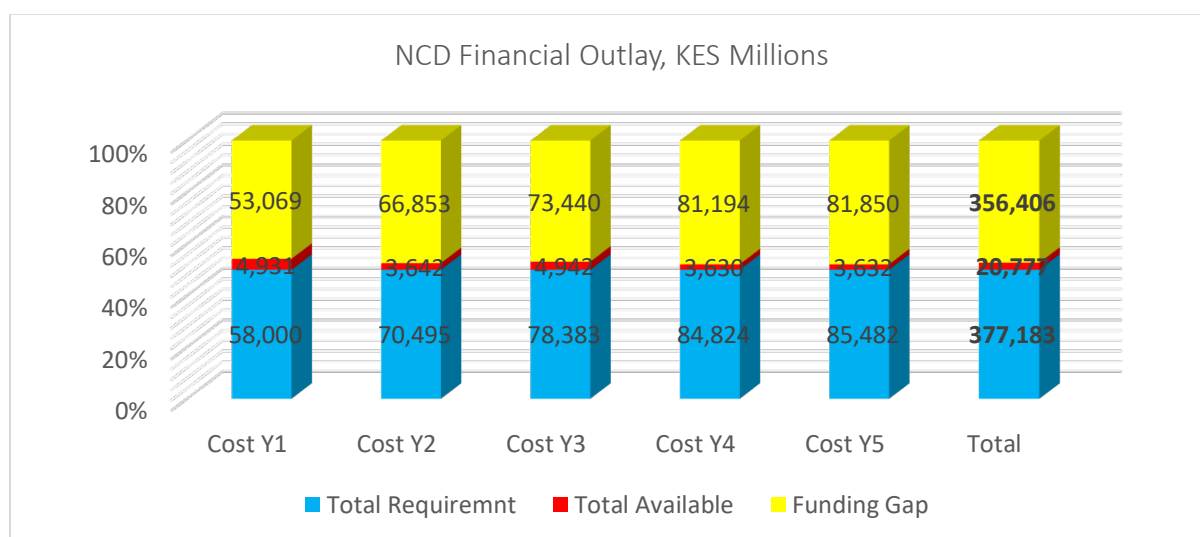
Table 12: Financial gap analysis for NCD Strategic Plan (KES millions)

	Cost Y1	Cost Y2	Cost Y3	Cost Y4	Cost Y5	Total	Percent
Total Requirement	58,000	70,495	78,383	84,824	85,482	**377,183**	100%
Total Available	4,931	3,642	4,942	3,630	3,632	**20,777**	6%
Funding Gap	**53,069**	**66,853**	**73,440**	**81,194**	**81,850**	**356,406**	**94%**

6.5 Strategies to ensure available resources are sustained

	Stakeholder	Area of Interest	Strategy
1	The National Treasury	Annual Budget	Development of strategic concept/Proposals
			Active participate and in MTEF processes
			Active participation in the annual budget estimate processes
			Regular advocacy meeting
2	National & County Assembly	Budgetary Allocation process	Lobbying for increased budgetary allocation to NCDs Lobbying for adequate allocation of sin tax to NCDs
3.	County Governments		Lobbying for a legislative framework in the county assembly for resource mobilization and allocation
4	Development Partners (World bank, UN bodies, Bilateral donors)	Advancing health agenda by providing funding	Joint round table funding opportunity meetings
			Identification of potential donors both bilateral and multi-lateral
			Drafting and submission responsive concepts and proposals for funding
5	Private Sector	Corporate responsibilities, collaboration, and commercial value addition	Engagement through public private partnership
			Hold regular meetings
			Put in place efficient procurement systems
			Establishment of sound Lease and Concession contracts
			Efficient Procurement processes
6.	International Non-Governmental Organizations (INGOs), NGOs, CSOs, FBOs	Funding, provision of services, Capacity building, Social Accountability	Hold continuous dialogue meetings
			Drafting and submitting responsive proposals
			Sharing information for support areas of interest
7	Community	Lobbying for increased funding at constituency and county level	Identification, appointment, and accreditation of eminent persons in the community as resource mobilization good will ambassador

6.5.1 Strategies to ensure efficiency in resource utilization

- Thorough planning for utilization of the allocated resources.
- Implementation plans with timelines.
- Continuous monitoring of impact process indicators.
- Periodic evaluation objectives if they have been achieved as planned.

7 CHAPTER SEVEN: INSTITUTIONAL FRAMEWORK

Leadership and Governance will play a critical role in successful implementation of this NCDs strategic plan by providing framework for engagement with various institutions, private sector, county governments and line ministries working in NCDs programming within the country. This will be even more critical given devolution of health services including NCD service delivery and the need to have functional governance mechanisms at both levels. This is critical in fulfilling key objectives such as:

- Recognise and empower communities to play an active role in matter relating to NCDs prevention and treatment.
- Protection and promotion of the NCDs interests and rights of minorities and marginalised communities, including informal settlements such as slum dwellers and under-served populations such as prisoners and immigrant population.

The key structures necessary for implementation of this strategy are presented in Figure . They include National NCD Steering Committee, National and County Health Management teams, boards and committees, development partners and other relevant stakeholders in NCDs prevention and control. The leadership/management structure, governance and stewardship mechanisms will be sensitive to both humanitarian and development issues aimed at abating any threat that could be posed by public health emergencies and/or disasters, including COVID-19 pandemic.

7.1 Institutional Framework
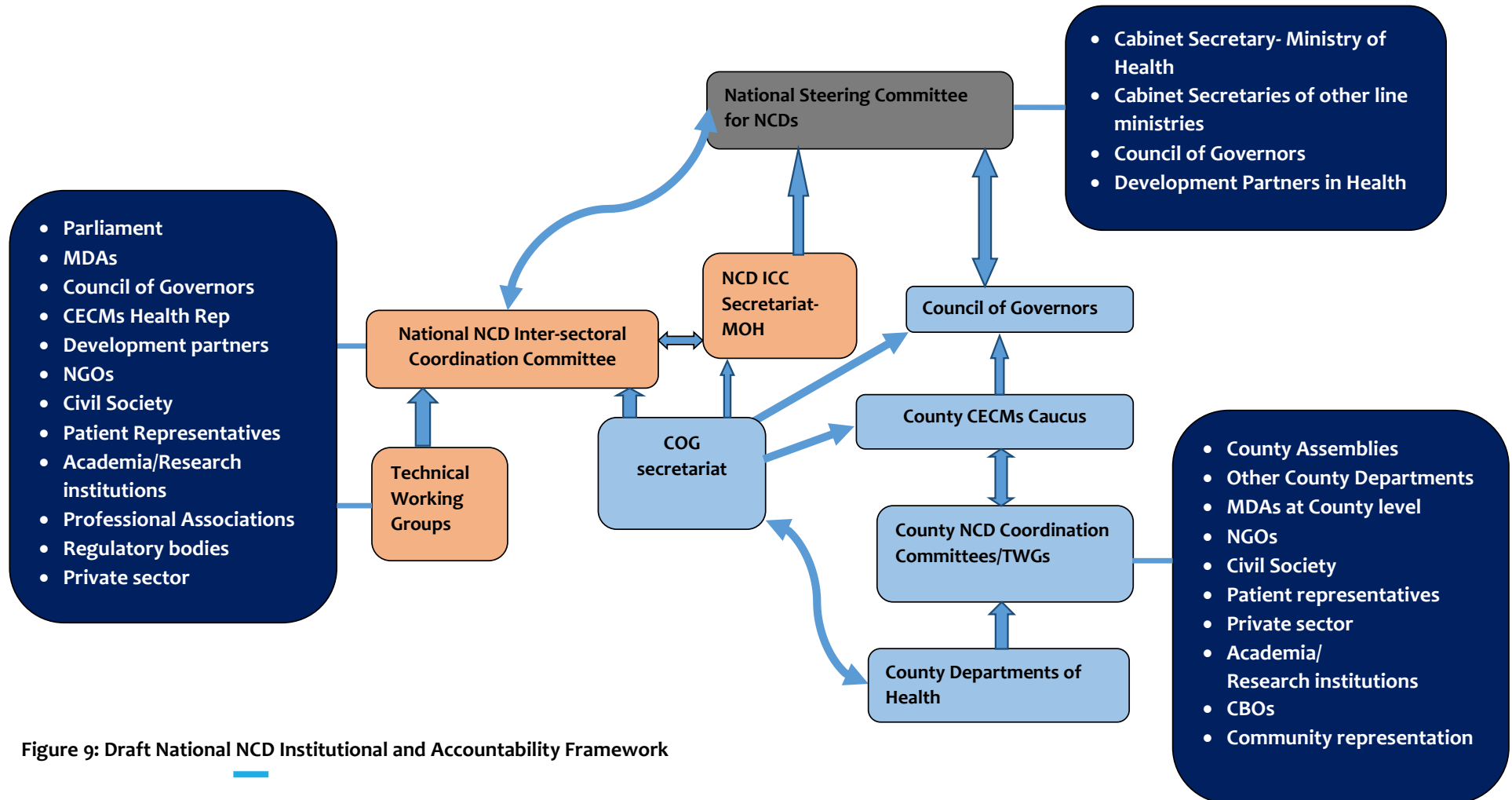
Figure 9: Draft National NCD Institutional and Accountability Framework

7.2   Roles and Responsibilities

The structures outlined in Figure 8 to efficiently function this strategy envisioned to strengthen linkages and harmonization of approach between various stakeholders in NCD programming. This requires clear understanding of the roles and responsibilities of each of the actors towards realisation of the vision and the mission of this NCD strategy. Table 12 show the key actors and the responsibility they are expected to play.

Table 13: Roles and responsibility of Key Actors in NCD programming

Actor	Roles and responsibilities
NCD ICC	- To provide overall technical oversight for NCD Prevention and Control activities in Kenya including advising the Ministry of Health as required. - To promote Sectoral and Multisectoral Coordination among all stakeholders involved in prevention and control of NCDs. - To coordinate the activities of relevant stakeholders, ensure they are aligned to the NCD strategy and equitable distributed. - To support country efforts to prevent and control NCDs. - To facilitate systematic and timely information exchange among stakeholders. - To facilitate information sharing on available resources to enhance planning, synergy and efficient use of available resources. - To strengthen advocacy to raise the priority accorded to the prevention and control of NCDs. - To strengthen international collaboration in support of national plans for the prevention and control of NCDs.
Ministry of Health (DNCD)	- Provide overall leadership and stewardship in NCD management and prevention. - Advocacy and social mobilization. - Development review and M&E of policies for coordination of NCD activities. - Development and review of policies and guidelines for NCDs. - Provide a framework for stakeholder engagement and revitalise multisector stakeholder coordination mechanisms. - Allocate adequate resources for supervision and oversight. - Resource mobilization and linkage of partners to counties. - Forge appropriate regional and local multi-sectoral partnerships. - Provide sector frameworks to guide investments in NCD. - Provide a resource mapping repository. - Coordination of NCD data management and dissemination as well as research and technology platforms. - Integrating NCD agenda across all MDAs. - Prioritizing NCDs in the health financing policy. - Capacity development for HRH.
The County government	- Implement national policies and guidelines on NCD at the county level. - NCD service provision at all levels. - Prioritizing NCDs in the health financing policy. - Provision of well-equipped health facilities. - Hiring, training, retention, and remuneration of HRH in line with Kenya staffing norms. - Advocacy and policy geared towards NCDs management and prevention. - Ensuring availability of essential HPTs. - Resource allocation & mobilization and create conducive environment for implementing partners towards NCDs. - Streamlining referral services.

Actor	Roles and responsibilities
	• Establish multi-sectorial forums geared towards NCD management and prevention.
Private sector	• Provide financial support for NCDs prevention and control interventions. • Ensure manufacturing of quality, affordable, accessible health care goods, and services (e.g. medicines, pharmaceutical products, and rehabilitation). • Undertake CSR activities targeting community awareness for NCDs. • Insurance companies should develop NCD friendly packages. • Conduct responsible advertising and follow NCD risk control laws and policies. • Support technology innovation and use in the health sector. • Support implementation of NCD prevention and control initiatives at their workplaces. • Comply with policies, strategies, and guidelines on NCDs prevention and Control. • Protect, promote, and support breastfeeding in the workplace. • Develop workplace policies that do not discriminate against PLWNCDS. • Participate in resource mobilisation. • Provide a healthy and friendly environment to support NCD prevention and control. • Create incentives for employers to reduce psychological and job-related stress, enhance stress management, and introduce easy-to-implement programmes to promote well-being in the workplace
Private Health Facilities	• Offer quality healthcare for PLWNCD's seeking care in private hospitals. • Undertake CSR activities targeting community awareness for NCDs. • Comply with policies, strategies, and guidelines on NCDs prevention and Control. • Build capacity for NCD prevention and control. • Participate in data sharing.
Faith Based Organizations	• NCD Care providers in line with the NCD strategy. • Linkage to patients/PLWNCDs. • Mobilise resources. • Contribute consensus building and connect local communities with the health care system. • Provision of care and support to the vulnerable groups. • Strengthen human resource for health. • Promote healthy lifestyles to address risk factors to NCDs.
Development partners	• Provide technical support and capacity building • Support resource mobilising and financing of NCD interventions • Participate in multisectoral coordination committees
Regulatory and professional association	• Review and development of curricula to incorporate NCDs. • Implementation of the HRH for NCD strategies specifically addressing staffing gaps, task-sharing, career progression and recognition. • Expanding the availability of specialists, guideline development and dissemination, capacity building, research and conducting advocacy at both national and county level for improved NCD health services
Law makers (national and county assemblies)	• Pass bills for prevention and control of NCDs • Lobby for increased allocation of resources for NCD prevention and control • Provide an oversight for NCD implementation in the country • Implement NCD prevention and management
Academic, Research and Health Training Institutions	• Support education and training on NCDs • Review education curricula in consultation with regulatory bodies to respond to the current NCD trends

Actor	Roles and responsibilities
	• Conduct NCD research to inform policy, planning and programming • Support accountability on the implementation of the strategy
Media	• Engage in advocacy and community mobilisation in implementation of this strategy • Participate in development and dissemination of health messages on NCDs and risk factors • Educate the public on NCDs and the risk factor across all levels. • Sensitise and mobilise their members for effective implementation of this strategy • Advocate and ensure accurate and evidence-based reporting on NCDs prevention and control • Conduct responsible advertising and adhere to and promote NCD risk control policies and regulations
Individuals and Communities	• Adopt appropriate health care seeking behaviours when ill • Participate actively in health promotion and NCD prevention activities • Increase demand by lobbying and seeking for insurance policies for financial and social protection. • Participate in social mobilisation activities to raise awareness for NCDs • Participate in the budget making process • Adopt annual NCDs screening

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9 APPENDICES

9.1 Appendix 1: NCD Strategy Implementation Plan

Table 14: NCD Strategy Implementation Plan

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
Sectoral and Multisectoral Coordination and Governance	To strengthen Sectoral and Multisectoral Coordination, leadership and governance for prevention and response to NCDs at all levels	Strengthen multi-sectoral coordination at all levels	1.1.Update stakeholders database	1.1.1: Review the existing stakeholders in database to identify gaps	X	X	X	X	X	DNCD and Partners
				1.1.2: Hold meetings to update database	X	X	X	X	X	
			1.2. Involve other non-health sectors in NCD-ICC	1.2.1: Hold stakeholders conference to acquire their buy-in	X		X			MoH-DNCD
				1.2.2: Hold quarterly engagement and sensitization through TWG meetings	X	X	X	X	X	
				1.2.3: Disseminate relevant policy documents	X	X	X	X	X	
			1.3. Support establishment of multisectoral county NCD coordination committees/technical working groups	1.3.1: undertake formal introduction of the subject to Counties through letters	X					MoH-DNCD & CoG
				1.3.2: Hold regional County forums to sensitize on the benefits and role of NCD Coordination Committees	X	X	X			
				1.3.3: Provide technical support	X	X	X	X	X	
			1.4. Build capacity of multi-sectoral committees	1.4.1: Disseminate the NCD strategy	X	X				MoH-DNCD & Partners
				1.4.2: Hold sensitization meetings		X	X	X	X	
				1.4.3: Train the NCD Coordination Committee members						
			1.5. Establish and operationalize the multi-	1.5.1: Develop information management web-portal	X					MoH-DNCD & Stakeholders

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			sectoral information management system							
				1.5.2: Undertake regular update of the web-portal with relevant information	X	X	X	X	X	
			1.6. Hold Biannual NCD ICC steering committee forums	1.6.1. Hold Biannual NCD ICC steering committee forums	X	X	X	X	X	NCD ICC Leadership & S
		Enhance sectoral coordination	1.6.1. Engage other health sector programs on the NCD Strategy and other NCD prevention and control initiatives	1.6.1: Hold sensitization meetings	X	X	X	X	X	MoH-DNCD & Stakeholders
			1.6.1 Participate in development of and integration of NCDs in other health sector policies, strategic plans, and clinical guidelines	1.6.1: undertake appraisal of other health sector policies	X			X		MoH-DNCD
				1.6.2: Participate in other health sector policy development processes to ensure inclusion/ integration	X	X	X	X	X	MoH-DNCD & Stakeholders
		Strengthen Private Sector Coordination and Engagement	1.7. Sensitize private sector players on NCD policies, legislation, and responsible business practices	1.7.1: Hold annual sensitization meetings	X	X	X	X	X	MoH-DNCD & Private Sector Associations/umbr ella bodies
				1.7.2: Hold trainings on responsible business practices		X		X		
			1.8. Develop an engagement framework with private sector a. Harness private sector resources in a coordinated manner b. Minimize conflict of interest c. Establish reporting mechanisms	1.8.1: Hold consultative forums		X				MoH

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				1.8.2: Hold writing workshops		X				NCD-ICC
				1.8.3: Circulate draft framework for stakeholder inputs/public participation		X				NCD-ICC
				1.8.4: Hold a validation meeting		X				NCD-ICC
				1.8.5: Disseminate the framework		X	X	X	X	NCD-ICC
		Strengthen Leadership and Governance	1.9. Establish a high-level National Steering Committee at Cabinet Level	1.9.1: Brief top management on the need to establish a high-level National Steering Committee	X					MoH
				1.9.2: Write cabinet memos/ policy brief	X	X				
				1.9.3: Write and dispatch letters informing the members of the National Steering Committee of their nomination		X	X			
			1.9. 1Build the Capacity of NCD Departments at both National, County and Sub-County levels	1.9.1.1: Identify National/County/sub-county specific needs	X	X				MoH-DNCD
				1.9.1.2: Conduct training to fill the knowledge gap			X	X	X	MoH-DNCD & CoG
				1.9.1.3: Advocate National Government and Counties to allocate resources to NCDs Prevention and Control interventions			X	X	X	MoH-DNCD
			1.9.2. Develop NCDs resource tracking and accountability tool at national and county level	1.9.2.1: Develop NCDs resource tracking and accountability tool at national and county level	X			X		MoH-DNCD, CoG & Partners
			1.9.2. Conduct annual NCDs resource tracking and accountability	1.9.2.2. Conduct annual NCDs resource tracking and accountability	X	X	X	X	X	
			1.9.3. Ensure adequate representation of NCDs in the National Health Accounts process	1.9.3.1: Collect and analyse data on NCD expenditure	X	X	X	X	X	

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				1.9.3.2: Participate in the development and validation of National Health Accounts process	X	X	X	X	X	
			1.9.4. Develop an NCD policy	1.9.4.1: Operationalize the policy sector working group		X				MoH-DNCD & Partners
			-	1.9.4.2: Conduct workshops to develop the NCD policy		X				
				1.9.4.3: Circulate draft NCD policy for stakeholder inputs/public participation		X				
				1.9.4.4: Hold a validation meeting		X				
			-	1.9.4.5: Disseminate the NCD policy		X	X	X	X	
			1.9.5. Develop regular policy briefs	1.9.5.1: Develop half year policy briefs	X	X	X	X	X	MoH-DNCD
			1.9.6. Mainstream NCDs prevention and control initiatives into sector specific plans	1.9.6. 1: Develop NCDs prevention and control mainstreaming guidelines		X				MoH-DNCD & Partners
			-	1.9.6. 2: Sensitize other sectors on the guidelines to mainstream NCDs prevention and control initiatives			X	X	X	
Minimize exposure to modifiable risk factors	To reduce exposure to modifiable risk factors through strengthening relevant policies, health promotion and addressing individual-level risk factors	a) Strengthen relevant policy and legislative frameworks to minimize exposure to modifiable risk factors	2.1. Mapping of existing policy, legal and legislation frameworks to minimize exposure to modifiable risk factors	2.1.1 Hold meeting to develop a strategy for mapping	X					DNCD
				2.1.2 Carry out mapping activity						
				2.1.3 Data analysis and report writing	X					DNCD
				2.1.4 Printing of the mapping report		X				DNCD
				2.1.5 Hold a virtual meeting for dissemination of the report		X				DNCD
			2.2 Establish national regulatory and fiscal policies to promote healthy	2.2.1. Desk review of existing legislation on restriction of	X					DNCD/DND

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			diets (Trans-fat regulation, Regulation of marketing of unhealthy foods and non alcoholic drinks to children , Fiscal policies on SSB, Front of pack standards laws)	marketing of unhealthy foods to children						
				2.2.2. Hold a multisectoral workshop on development of the concept and road map	X					DNCD/DND
				2.2.3. Hold 3 multisectoral workshops to develop laws & regulations for restriction of marketing of unhealthy foods to children & the general population (addressing salt, sugar, fats, front of pack labelling,		X				DNCD/DND
				2.2.4. Conduct public participation forums		X				DNCD/DND
				2.2.5. Sensitize the health committee on health			X			DNCD/DND
				2.2.6. Enactment of the bill				X		Parliament
				2.2.7. Publish the act and regulations				X		Government printer
				2.2.8. Disseminate law and regulations				X		DNCD/DND
			2.3. Review of Tobacco Control Act to include new emerging tobacco products	2.3.1. Conduct a market surveillance to know the existing novel product	X					TCB/DTC/KETCA/ILA
				2.3.2. Hold workshops to review the Tobacco Control Act	X	X				TCB/DTC/KETCA/ILA
				2.3.3. Conduct public participation		X	X			TCB/DTC/KETCA/ILA
				2.3.4. Sensitize the relevant house committees on the TCA		X	X			TCB/DTC/KETCA/ILA
				2.3.5. Passing of amendments in parliament				X		Parliament
				2.3.6. Publish the amendments				X		Government printers

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				2.3.7. Dissemination of amendments				X		TCB/DTC/KETCA/ILA
			2.4. Review of the Alcoholic Drinks control Act to increase excise taxes and enact ban on exposure to alcohol advertising (across multiple types of media)	2.4.1. Conduct a desk review to establish best practices		X				DNCD and partners
				2.4.2. Hold workshops to review the alcoholics drinks control Act			X			DNCD and partners
				2.4.3. Print bill			X			DNCD and partners
				2.4.4. Conduct public participation				X		DNCD and partners
				2.4.5. Sensitize the relevant house committees on the TCA				X	X	DNCD and partners
				2.4.6. Passing of amendments in parliament					X	Parliament
				2.4.7. Publish the amendments					X	Government printers
				2.4.8. Dissemination of amendments					X	DNCD and partners
			2.5. Review policies on urban and cities design to promote physical activity	2.5.1. Conduct a desk review to establish best practices		X				DNCD and partners
				2.5.2. Hold workshops to review the urban design and transportation policies			X			DNCD and partners
				2.5.3. Print bill			X			
				2.5.4. Conduct public participation				X		DNCD and partners
				2.5.5. Sensitize the relevant house committees on the TCA				X	X	Parliament
				2.5.6. Publish the amendments					X	DNCD and partners
				2.5.7. Dissemination of amendments					X	DNCD and partners
			2.6. Review and enact policies and legislations to limit exposure to environmental toxins and pollutants	2.6.1. Conduct a desk review to establish best practices		X				DNCD and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				2.6.2. Hold workshops to review the urban design and transportation policies			X			DNCD and partners
				2.6.3. Conduct public participation				X		DNCD and partners
				2.6.4. Sensitize the relevant house committees on the TCA				X	X	DNCD and partners
				2.6.5. Passing of amendments in parliament					X	Parliament
				2.6.6. Publish the amendments					X	Government printers
				2.6.7. Dissemination of amendments					X	DNCD and partners
		Strengthen health promotion and education through community based strategies and mass media campaigns aimed at supporting behaviour change	2.8. Develop and disseminate health promotion messages on physical activity, healthy diets, reduction of alcohol consumption, cessation of tobacco consumption, stress reduction at workplaces, environmental toxins and pollution	2.8.1. Hold workshops to develop health promotion messages	X	X	X	X	X	DNCD and partners
				2.8.2. Editing and designing of the health promotion messages	X	X	X	X	X	DNCD and partners
				2.8.4. Printing of the health promotion materials	X	X	X	X	X	DNCD and partners
				2.8.5. Pretesting	X	X	X	X	X	DNCD and partners
				2.8.6. Dissemination in social media	X	X	X	X	X	DNCD and partners
				2.8.7. Dissemination in mass media	X	X	X	X	X	DNCD and partners
				2.8.8. Dissemination in print media	X	X	X	X		DNCD and partners
			2.9. Promote development, review, and Implement the NCD content on risk factor reduction in the CBC curriculum	2.9.1. Hold workshops to review CBC curriculum		X		X		DNCD, School health, MOE
				2.9.2. Hold workshops to develop teacher reference materials		X		X		DNCD, School health, MOE
				2.9.3. Hold dissemination forums		X		X		DNCD, School health, MOE

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				2.9.4. Train national master trainers		X		X		DNCD, School health, MOE
			2.10. Conduct community awareness on reduction of risk factors for NCDs through the CHVs network	2.10.1. Review community health module and develop job aids	X					DNCD, Community Strategy partners
				2.10.2. Review community health reporting tools	X					DNCD, Community Strategy partners
				2.10.3. Train CHVS		X	X	X	X	DNCD, Community Strategy partners
				2.10.4. Hold community dialogues	X	X	X	X	X	DNCD, Community Strategy partners
			2.11. Strengthen preschool and school based oral health programs	2.11.1. Review and disseminate oral health section of community health volunteers module	X	X				Division of Oral Health, Community health, DNCD
				2.11.2. Conduct sensitizations for CHVs	X	X	X	X	X	Division of Oral Health, Community health, DNCD
				2.11.3. Conduct sensitization meetings for TOT for teachers	X	X	X	X	X	Oral health division, MOE, partners
				2.11.4. Conduct school based oral health campaigns	X	X	X	X	X	Oral health division, MOE, partners
		Strengthen individual-level risk reduction through community and health facility-based approaches	2.12. Scale up the routine vaccinations aimed at preventing development of NCDs	2.12.1. Awareness creation using community health volunteers	X	X	X	X		DNCD, Community Strategy partners
				2.12.2. Awareness creation through mass media	X	X	X	X	X	DNCD and partners
				2.12.3. Awareness creation through schools	X	X	X	X	X	DNCD, partner, MOE
			2.13. Scale up relevant communicable diseases vaccination among people living with NCDs to prevent their exacerbation and	2.13.1. Sensitization of health workers	X			X		DNCD, DVI and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			delay the progression of risk factors							
				2.13.2. Hold advocacy forums	X	X	X	X	X	DNCD, DVI and partners
				2.13.4. Develop policy briefs	X	X	X	X		DNCD, DVI and partners
			2.14. Develop and roll out NCD risk assessment tools among the population for use by CHVs and health care workers	2.14.1. Sensitize health workers on conducting risk assessments		X				DNCD, Counties and partners
				2.14.2. Sensitize CHVs on conducting risk assessments		X				DNCD, Counties and partners
				2.14.3. Integrate risk assessment into existing patient files		X	X	X	X	DNCD, Counties and partners
				2.14.4. Print risk assessment tools/files		X	X	X	X	DNCD, HMIS and partners
				2.14.5. Revise reporting tools to capture NCD risk assessment variables		X				DNCD, HMIS and partners
Health system response for management of NCDs	To Strengthen the health system for provision of equitable, quality, accessible, affordable, responsive, and sustainable NCD management across the life course	Strengthen NCD Management at the PHC in line with the PHC strategic framework 219-224	3.1. Develop and disseminate integrated NCD model for primary health care and its implementation framework	3.1.1. Stakeholder mapping, desk review of existing models	X					DNCD, Dept of Primary Health Care, Partners
				3.1.2. Hold workshop to develop the model	X					DNCD, Dept of Primary Health Care, Partners
				3.1.3. Hold 2 validation workshops (1 day each)	X					DNCD, Dept of Primary Health Care, Partners
				3.1.4. Print 2400 copies of the model document	X					DNCD, Dept of Primary Health Care, partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				3.1.5. Launch of the model	X					DNCD, Dept of Primary Health Care
			3.2. Capacity building of CHAs and CHVs on NCD prevention and management at PHC	3.2.1. Hold workshops to develop and review training packages for CHAs and CHVs	X	X	X	X	X	DNCD, Community Health, Partners
				3.2.2. Print training modules	X	X	X	X	X	DNCD, Community Health, Partners
				3.2.3. Launch training modules		X	X		X	DNCD, Community Health, Partners
				3.2.4. Train CHAs	X	X	X	X	X	DNCD, Community Health, Partners
				3.2.5. Train CHVs	X	X	X	X	X	DNCD, Community Health, Partners
				3.2.6. Purchase basic NCD screening equipment (BP machines, glucometers, glucose strips)	X		X		X	DNCD, Community Health, Partners
			3.3. Integrate NCD education, institutionalize screening services and follow up (Blood pressure, blood sugar, cancer screening, mental health, Body Mass Index, and waist circumference) into routine community health services and level 2 and 3 facilities in line with the Kenya Essential Package for Health	3.3.1. Train primary health care workers on NCD management	X	X	X	X	X	DNCD and partners
				3.3.2. Purchase basic NCD screening equipment (BP machines, glucometers, glucose strips) for CHVS	X		X		X	DNCD, Community Health, Partners
			3.4. Provide technical support to counties for implementation of	3.4.1. Biannual technical support visits to counties	X	X	X	X	X	DNCD

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			integrated NCD model for PHC							
				3.4.2. Stakeholder mapping, desk review of existing policies and manuals	X					MOH -DNCD/HRH, Regulatory bodies
				3.4.3. Hold 5 days workshop to develop the manual	X					MOH -DNCD/HRH, Regulatory bodies
				3.4.4. Hold 2 validation workshops (1 day each)	X					MOH -DNCD/HRH, Regulatory bodies
				3.4.5. Print 2400 copies of the manual document	X					DNCD
				3.4.6. Launch of the manual	X					DNCD
				3.4.7. Hold 2 dissemination meetings (1 day) targeting 50 people per meeting		X				MOH -DNCD/HRH, Regulatory bodies
		Mainstream NCDs management within the UHC agenda	3.5. Define, develop, and disseminate essential NCD management package for UHC	3.5.1. Stakeholder mapping, desk review of existing UHC packages	X					DNCD, NCD ICC
				3.5.2. Hold 5 days workshop to develop the UHC package	X					DNCD, NCD ICC
				3.5.3. Hold 2 validation workshops (1 day each)	X					DNCD, NCD ICC
				3.5.4. Print 2400 copies of the NCD management package document	X					DNCD
				3.5.5. Launch of the NCD management package	X					DNCD
			3.6. Strengthen representation of NCD-ICC within the UHC governance to improve decision making on NCDs	3.6.1 Participate in UHC meetings	X	X	X	X	X	DNCD, UHC secretariat
		Enhance human resource capacity for NCD service provision and improving availability of	3.7. Map human resource for NCD needs across all levels of care	3.7.1 County visits to do HR needs assessment for NCDs		X				DNCD, HRH

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
		specialized health services								
				3.7.2 Meeting to consolidate and analyse collected data		X				DNCD, HRH
			3.8. Align and implement HRH needs for NCD at national and county levels as per the HRH Strategy	3.8.1 Hold workshops to develop NCD career pathways for national and county levels		X				DNCD, Counties, HR
				3.8.2 Disseminate career pathway		X	X			DNCD, Counties, HR
				3.8.3 Participate in development of HR strategy and staff establishment documents	X	X	X	X	X	DNCD, Counties, HR
			3.9. Strengthen capacity of service providers to meet demand for NCD service delivery	3.9.1 Conduct workshops to harmonize and develop training packages	X	X	X	X	X	DNCD, Partners, Counties Academia
				3.9.2 Train service providers	X	X	X	X	X	DNCD, Partners, Counties Academia
				3.9.3 Hold meeting to disseminate guidelines for cross sharing of specialist		X				DNCD, Partners, Counties Academia
				3.9.4 Recruitment of additional NCD Specialists across cadres		X	X	X	X	Counties, level 6
			3.10. Develop and implement trauma care framework	3.10.2 Print trauma care framework	X					DVIP and partners
				3.10.3 Launch trauma care framework	X					DVIP and partners
				3.10.4 Disseminate trauma care framework		X	X	X		DVIP and partners
				3.10.5 Conduct training on trauma care		X	X	X	X	DVIP and partners
		Ensure a sustainable and resilient supply chain system providing quality, affordable and	3.11. Review the essential HPT lists for NCD management (Medicines, Medical supplies, lab)	3.11.1 Stakeholder mapping, desk review of existing HPT lists	X					DNCD, DHPT

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			accessible essential HPTs for NCDs							
			3.12. Train health managers on HPT management as TOTs	3.12.1 Hold regional ToT training workshops on HPT management (5 people per county)			X			DNCD, DHPT
				3.12.2 Conduct county level technical assistance visits (2 visits per county in the 5 years)		X	X	X	X	DNCD, DHPT
			3.13. Negotiate with various stakeholders to address cost reduction for NCD HPTs to enhance patient affordability	3.13.1 Stakeholder mapping, desk review of existing policies, taxation and pricing regulations and practices			X			NCD ICC, DNCD, DHPT, PPB, Treasury, AG
				3.13.2 Hold 5 days workshop to develop the NCD HPT list			X	X		NCD ICC, DNCD, DHPT, PPB, Treasury, AG
			3.14. Conduct national quantification and costing of NCD HPTs	3.14.1 Hold 1 workshop for 3 days to review the quantification protocol			X			NCD ICC, DNCD, DHPT
				3.14.2 Seek ethical approval for the survey (IRB/NACOSTI)			X			NCD ICC, DNCD, DHPT
				3.14.3 Identify and train data collectors from counties (20 teams of 4 data collectors)			X			NCD ICC, DNCD, DHPT
				3.14.4 Conduct data collection exercise for 60 days			X			NCD ICC, DNCD, DHPT
				3.14.5 Conduct data analysis in 10 days			X			NCD ICC, DNCD, DHPT
				3.14. 6Hold report writing workshop for 5 days			X			NCD ICC, DNCD, DHPT
			3.15. Ring fence commodity NCD funds at County level through review of PFM Act 2012	3.15.1 4 meetings to review PFM Act		X				MOH, Treasury, AG
				3.15.2 Submission of amendments to Parliament		X				MOH, Treasury, AG
			3.16. Monitor pharmacovigilance and	3.16.1 Development of PMS protocol		X				DNCD, DHPT, PPB

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			post market surveillance for NCD HPTs							
				3.16.2 Field visits for sample & data collection		X				DNCD, DHPT, PPB
				3.16.3 Lab analysis		X				DNCD, DHPT, PPB
				3.16.4 PMS/PV Report writing		X				DNCD, DHPT, PPB
		Enhance quality of care for NCD management across all levels	3.17.1 Develop quality improvement framework anchored in the Kenya Quality Model for Health for NCDs	3.17.1 Stakeholder mapping, desk review of existing frameworks		X				DNCD, Directorate of Standards
				3.17.2 Hold 5 days workshop to develop the framework		X				DNCD, Directorate of Standards
				3.17.3 Hold 2 validation workshops (1 day each)		X				DNCD, Directorate of Standards
				3.17.4 Print 1000 copies of the framework		X				DNCD, Directorate of Standards
				3.17.5 Launch of the framework		X				DNCD, Directorate of Standards
			3.18. Establish quality management systems for NCD care in line with Quality of Care Certification Framework for the Kenyan Health Sector 2020	3.18.1 Hold meetings to develop a quality improvement tool	X					DNCD, Directorate of Standards, Counties, Partners
				3.18.2 Develop a quality improvement monitoring schedule	X					DNCD, Directorate of Standards, Counties, Partners
				3.18.3 Conduct periodic quality monitoring for NCDs in collaboration with relevant stakeholders		X	X	X	X	DNCD, Directorate of Standards, Counties, Partners
				3.18.4 Disseminate findings of quality improvement		X	X	X	X	DNCD, Directorate of Standards, Counties, Partners
			3.19. Develop an NCD telehealth framework (teleconsultation, patient booking, reminders, and	3.19.1 Stakeholder mapping, desk review of existing NCD telehealth frameworks	X					MOH- DNCD, HIS

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			legal issues) anchored in the Kenya e-Health Strategy 2011-2017							
				3.19.2 Hire an e-health consultant to guide the development of the telehealth framework	X					MOH- DNCD, HIS
				3.19.3 Hold 5 days annual workshops to develop NCD telehealth framework	X					MOH- DNCD, HIS
				3.19.4 Hold 2 day validation workshop	X					MOH- DNCD, HIS
				3.19.5 Launch of the framework	X					MOH- DNCD, HIS
				3.19.6 Hold 8 regional dissemination workshops for the framework	X					MOH- DNCD, HIS
			3.20. Develop/review and disseminate national guidelines, job aids and referral protocols for NCDs (Diabetes, CVD, Cancer, Sickle Cell, Mental Health, Renal disease, Epilepsy, Injuries prevention and trauma care)	3.20.1 Stakeholder mapping, desk review of existing guidelines, collect feedback from users	X	X	X	X	X	DNCD
				3.20.2 Hold 5 days annual workshops to develop/review the guidelines, job aids	X	X	X	X	X	DNCD
				3.20.3 Hold 2 validation workshops annually (1 day each)	X	X	X	X	X	DNCD
				3.20.4 Print 1000 copies of guidelines and job aids per year	X	X	X	X	X	DNCD
				3.20.5 Launch of the various guidelines (50 participants per launch)	X	X	X	X	X	DNCD
			3.21. Integrate NCD screening, diagnosis, and management into other service delivery points	3.21.1. Develop guidelines for integration of services	X	X				DNCD

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				3.21.2. Train health workers on integration of services		X	X	X	X	DNCD
				2.22.3 Review existing data management tools to capture integration of services		X	X	X		DNCD
			3.22 Strengthen referral pathways for NCDs	3.22.1 Develop referral SOPs		X				DNCD, Counties, partners
				3.22.2 Disseminate SOPs			X			DNCD, Counties, partners
				3.22.3Monitoring referral pathways			X	X	X	DNCD, Counties, partners
		Strengthen health infrastructure for NCD management at all levels to meet the demand	3.25. Establish comprehensive county NCD wellness centers of excellence	3.25.1 Identify sites for centers of wellness	X	X	X	X	X	DNCD, Counties, NCD infrastructure, NCD Alliance
				3.25.2 Hold meetings to develop standards for wellness centers		X				DNCD, Community health, NCD Alliance
				3.25.3 Launch and disseminate centers of wellness		X				DNCD, Community health, NCD Alliance
				3.25.4 Equip allocated centers with infrastructure, supplies and allocate staff		X				Counties, DNCD, Division of Health Infrastructure
			3.26. Establish five regional comprehensive NCD centers by 2025	3.26.1 Sign agreements with relevant parties	X	X	X	X	X	DNCD, COG, National Treasury, Partners
				3.26.2 Construct centers or refurbish existing buildings	X	X	X	X	X	DNCD, COG, National Treasury, Partners
				3.26.3 Equip allocated centers with infrastructure, supplies and allocate staff	X	X	X	X	X	DNCD, COG, National Treasury, Partners
		Strengthen the health system to ensure achievement of integrated people	3.27. Develop a framework for establishment and management of NCD patient support groups	3.27.1 Hold workshops to develop framework for management of NCD patient support groups		X	X			DNCD, NCD Alliance

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
		centred services for PLWNCDs and other vulnerable groups including in emergency settings								
				3.28.2 Validate the framework				X		DNCD, NCD Alliance
				3.28.3 Print the framework				X		DNCD, NCD Alliance
				3.28.4 Launch and disseminate the framework				X		DNCD, NCD Alliance
			3.29. Review and disseminate package for NCD in emergencies	3.29.1 Hold 3 days workshops to review NCDs in emergencies package	X					DNCD
				3.29.2 Hold 2 validation workshops (1 day each)	X					DNCD
				3.29.3 Hold workshop to disseminate NCDs in emergencies package	X					DNCD
			3.30. Review and disseminate the rehabilitation, palliative care, and survivorship guidelines	3.30.1 Hold 3 days workshops to review rehabilitation, palliative care, and survivorship manual			X			DNCD, NCCP, KEHPCA
				3.30.2 Hold 2 validation workshops (1 day each)			X			DNCD, NCCP, KEHPCA
				3.30.3 Hold workshop to disseminate rehabilitation, palliative care, and survivorship manual			X	X		DNCD, NCCP, KEHPCA
			3.31. Empower PLWNCDs to participate in the design and delivery of NCD health services	3.31.1 3.31.1. Conduct sensitization meetings	X	X	X	X	X	DNCD, NCD Alliance
				3.31.2 3.31.2. Invite PLWNCDs in key decision making meetings	X	X	X	X	X	DNCD, NCD Alliance

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
Advocacy , Communication And Social Mobilization	To strengthen advocacy, communication, and social mobilization at national, county and community level.	Enhance advocacy for NCDs at all levels	4.1. Advocate for prioritization and resource allocation for NCDs interventions within the MOH	4.1.1. DNCD to sensitize the planning department on the burden of NCDs and the NCDs needs	X	X	X	X	X	DNCD and Partners
			4.2. Develop and disseminate NCDs prevention and control advocacy, communication and social mobilization framework	4.2.1. Mapping of NCD IEC materials to inform advocacy messaging (including Steps survey)	X					DNCD. Division of health promotion and Partners
				4.2.2. Involve a resource person to develop the strategy	X	X				DNCD and Partners
				4.2.3. Hold meetings to develop the strategy		X	X			DNCD. Division of health promotion and Partners
				4.2.4. Print the strategy			X			DNCD. Division of health promotion and Partners
				4.2.5. Launch and Disseminate the strategy			X			DNCD. Division of health promotion and Partners
				4.2.6. Advocacy materials in the NCD specific website			X	X	X	DNCD
			4.3 Integrate NCD ACSM framework with other existing communication frameworks e.g. HIV, TB, Malaria, RH	4.3.1 Hold meetings with specific programs (HIV, TB, Malaria, RH, Child Health and Adolescents	X	X	X	X	X	NCD, NASCOP, TB, Malaria, RH, Child health, Adolescent Health, Vaccines, Environmental
				4.3.2Hold meeting to monitor the integration of the NCD ACSM into other frameworks	X	X	X	X	X	NCD, NASCOP, TB, Malaria, RH, Child health, Adolescent Health, Vaccines, Environmental
			4.3 High level advocacy for enforcement of risk factors regulations	4.3.1. Mapping of existing risk factors regulations to identify what exists and gaps	X					DNCD/ PARTNERS (WHO)
				4.3.2. Identify priority areas for enforcement	X					MOH/ Relevant ministries

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				4.3.3. Engage relevant stakeholders for enforcement of existing regulations and development of non-existing ones		X	X	X	X	MOH/ Relevant ministries / Advocacy groups
			4.4. Advocate for dissemination and operationalization of NCD guidelines and policies	4.4.1. Mapping of NCDs guidelines and policies	X					DNCD
				4.4.2. Engage relevant stakeholders to operationalize the NCD guidelines and policies		X	X	X	X	DNCD/Partners /Counties
			4.5. Commemorate World health NCD days	4.5.1. Print IEC materials	X	X	X	X	X	DNCD, Health promotion and partners
				4.5.2. Conduct mass media campaigns	X	X	X	X	X	DNCD, Health promotion and partners
				4.5.3. Develop content for mass media	X	X	X	X	X	DNCD, Health promotion and partners
				4.5.4. Hold planning meetings	X	X	X	X	X	DNCD, Health promotion and partners
				4.5.5. Hold commemoration meetings	X	X	X	X	X	DNCD, Health promotion and partners
			4.6. Advocate for full integration of NCDs in the UHC and PHC framework	4.6.1. Make a case for the participation of NCDs stakeholders in the UHC discussion platforms	X					DNCD/Counties
				4.6.2. Disseminate justification document to stakeholders	X					DNCD
			4.7. Disseminate the NCD strategy 2021-2025 across the 47 counties	4.7.1. Design and print the NCD strategy	X					DNCD
				4.7.2. Organize and hold dissemination forums in all the counties preferably in a TOT format	X	X	X			DNCD and partners /Counties

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			4.8. Advocate for institutionalizing of NCDs prevention and control in County health plans	4.8.1. Liaise with CHMTs to ensure NCD stakeholders are involved in the County Annual work plans	X	X	X	X	X	DNCD, Counties and Partners
				4.8.2. DNCD to follow up on NCDs budgets allocation and fully utilize the same	X	X	X	X	X	DNCD
			4.9. Advocate for development of NCDs prevention and control package by insurance companies	4.9.1. Identify gaps in insurance companies coverage on NCDs	X					DNCD and Insurance Regularly Authority
				4.9.2. Organize negotiation forums with Insurance companies	X	X				DNCD and Insurance Regularly Authority
			4.10. Disseminate the NCD investment case and poverty commission network report	4.10.1. Develop policy brief on NCD investment case and poverty commission report	X					DNCD and partners
				4.10.2. Hold meetings to disseminate investment case	X	X				DNCD and partners
		To empower communities with knowledge and skills on prevention and control of NCDs	4.15 Develop NCD prevention and management messages	4.15.1 Hold 2 workshops to develop NCDs communication messages	X					DNCD, health promotion, partners
				4.15.2 Pretesting of messages in focus group discussions	X					DNCD, health promotion, partners
			4.16. Disseminate key messages on NCDs prevention and management to the general population including the use of social media	4.16.1. Conduct mass media campaigns		X				DNCD: Division of Health promotion
				4.16.2. Procure newspaper spots		X	X	X	X	DNCD, Division of Public relations, Partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				4.16.3. Run social media campaigns		X	X	X	X	DNCD : Health promotion division /MOH Public relations office NCDAK and other NCDs partners
			4.17. Build the Capacity of PLWNCDs support groups in creating NCDs awareness	4.17.1 Hold workshops to train peer educators from PLWNCDs support groups			X			DNCD and partners /Counties
				4.17.2. Identify and link the PLWNCDs with opportunities for speaking out		X	X	X	X	DNCD and Partners /Counties
			4.18. Capacity building for community based resource persons on NCDs prevention and control	4.18.1. Develop a training curriculum on NCDS for Community Based Resource Persons		X				DNCD/community health /Counties
				4.18.2. Hold training sessions for the developed curriculum		X	X	X	X	Directorate of Medical Services , preventive and promotive health .(DMPPH)
		Strengthen social mobilization action for NCDs prevention and control	4.20 Mapping and capacity build social mobilisers	4.20.1. Mapping of social mobilizers at the national and the county level		X				DNCD/Health promotion /Counties
				4.20.2. Hold training sessions for the social mobilisers		X	X	X	X	DNCD/Health promotion /Counties
				4.20.3. Empower PLWNCDs on participation in the budget making process	X	X	X	X	X	DNCD/Health promotion /Counties
			4.21 Identify, support and package community and national champions	4.21.1. 1dentify community and national NCD champions	X	X	X	X	X	DNCD/Counties
				4.21.2. Sensitize the community and national NCD champions	X	X	X	X	X	DNCD/Counties
				4.21.3. Engage the community and national NCD champions in advocacy and awareness activities	X	X	X	X	X	DNCD/Counties

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			4.21 Identify, support and package community and national champions	4.21.1. 1dentify community and national NCD champions	X	X	X	X	X	DNCD/Counties
				4.21.2. Sensitize the community and national NCD champions	X	X	X	X	X	DNCD/Counties
				4.21.3. Engage the community and national NCD champions in advocacy and awareness activities	X	X	X	X	X	DNCD/Counties
			4.222. Hold community engagements for special groups to educate on NCD prevention and control	4.22.1. Identify special groups of interest	X					DNCD/Community health/Counties
				4.21.2. Hold meetings or special groups to educate on NCD prevention and control		X		X		DNCD/Community health/Counties
████										
Surveillance, monitoring, evaluation, and research	To promote NCD research and strengthen surveillance, monitoring and evaluation of NCDs to inform decision making and health planning	Promote NCD research and knowledge translation.	5.1. Establish NCD research priorities and implementation plan in collaboration with Research institutions &academia	5.1.1. Undertake situation analysis through desk reviews and interviews	X					DNCD, KEMRI and partners
				5.1.2. Hold meetings to identify NCD research gaps/needs as per strategy	X					DNCD, KEMRI and partners
				5.1.3. Hold stakeholder workshops for consensus building on the research priorities and develop draft implementation plan	X					DNCD, KEMRI and partners
			5.2. Identify potential sources of funding and partnerships for NCD research, surveillance, and M&E	5.2.1. Undertake desk reviews/Internet search for funding opportunities.	X	X	X	X	X	DNCD, and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				5.2.2. Hold a key stakeholder forums to deliberate on available funding/partnership opportunities per disease or thematic area	X	X	X	X	X	DNCD, and partners
			5.3. Conduct basic, operational and implementation research on NCDs and injuries	5.3.1 Hold stakeholder/network meetings to develop research proposals	X	X	X	X	X	DNCD and partners
				5.3.2. Conduct NCD and injuries research	X	X	X	X	X	DNCD and partners
				5.3.3. Hold writing workshops to analyse data and prepare manuscripts and reports						DNCD and partners
				5.3.4. Hold NCD research dissemination forums (workshops, conferences)	X	X	X	X	X	DNCD and partners
				5.3.5. Publish research findings in referred journals	X	X	X	X	X	DNCD and partners
				5.3.6. Present in international conferences	X	X	X	X	X	DNCD and partners
			5.4. Conduct population level surveys to assess NCD indicators including STEPS survey	5.4.1. Hold a workshop to Develop proposals and tools	X	X	X	X	X	DNCD and partners
				5.4.2. Write proposals to secure funding	X	X	X	X	X	DNCD and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				5.4.3. Conduct Training of research teams	X	X	X	X	X	DNCD and partners
				5.4.4. Undertake surveys fieldwork - data collection	X	X	X	X	X	DNCD and partners
				5.4.5. Data analysis and report writing	X	X	X	X	X	DNCD and partners
				5.4.5. Hold a Dissemination workshop to both internal and external stakeholders	X	X	X	X	X	DNCD and partners
			5.5. Establish a knowledge translation and dissemination framework for NCD research	5.5.1. Hold Stakeholder meeting		X				DNCD, KEMRI and partners
				5.5.2 Hold a workshop to Develop NCD knowledge and dissemination plan		X				DNCD, KEMRI and Partners
			5..6 6Conduct Capacity building on knowledge and translation	5..6.1 Hold a workshop to Develop training modules			X			DNCD,KEMRI and Partners
				5.6.2. Conduct training			X	X	X	DNCD, KEMRI and partners
				5.6.3 Conduct a joint workshop with other agencies in review and packaging of scientific information		X	X	X	X	DNCD, KEMRI and partners
			5.7 Generate annual NCD burden estimates	5.7.1. Conduct regular workshops with modelling experts to Develop NCD estimates generation models	X	X	X	X	X	DNCD, NACC, Partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				5.7.2. Conduct workshop to Disseminate NCD burden modelling estimates	X	X	X	X	X	DNCD, NACC, Partners
			5.8. Establish framework for adoption of innovations and ICT in NCD surveillance and care	5.8.1 Map innovators and partners in innovations that address NCD interventions	X	X	X	X	X	DNCD and partners
		Create robust systems for NCD surveillance	5.9. Create efficient integrated EMR for NCDs	5.9.1. Hold Stakeholders consultative meetings on creation of an integrated NCD EMR	X					DNCD,HMIS and partners
				5.9.2. Conduct technical workshops with IT team to incorporate NCD tools into an NCD EMR module	X					DNCD,HMIS and partners
				5.9.3. County visits for installation and operationalizing the NCD EMR module into existing EMRs		X	X	X		DNCD,HMIS and partners
				5.9.4. Conduct Training on the NCD EMR module		X	X	X		DNCD,HMIS and partners
				5.9.5. Provide Supportive infrastructure for efficient operation of EMR (computers, internet connectivity)		X	X	X	X	DNCD,HMIS and partners
				5.9.6. Conduct performance monitoring site visits for the EMR operations regularly		X	X	X	X	DNCD,HMIS and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
			5.10 Establish disease specific registries	5.10.1. Conduct a workshop to undertake Situation analysis - gaps, needs	X					DNCD,HMIS and partners
				5.10.2. Hold workshops to Develop guidelines and SOPs	X	X	X	X	X	DNCD,HMIS and partners
				5.10.3. Conduct workshops for Standardization of data collection and reporting tools for registry purposes	X	X	X	X	X	DNCD,HMIS and partners
				5.10.4 Print data tools	X	X	X	X	X	DNCD,HMIS and partners
				5.10.5. Conduct Training forums for NCD research registries	X	X	X	X	X	DNCD,HMIS and partners
				5.10.6. Conduct Data collection - electronic/manual	X	X	X	X	X	DNCD,HMIS and partners
				5.10.7 . Conduct training for Human resource- Biostatisticians, Record information officer etc.	X	X	X	X	X	DNCD,HMIS and partners
			5.11. Develop, disseminate, and distribute NCD data tools for surveillance and patient management	5.11.1. Hold workshops to develop and review NCD data tools as necessary	X	X	X	X	X	DNCD,HMIS and partners
				5.11.2. Conduct Training on the NCD data tools		X	X	X	X	DNCD,HMIS and partners
			5.12. Conduct annual data quality audits	5.12.1. Hold meetings to develop DQA tools when need arises	X	X	X	X	X	DNCD,HMIS and partners

Key Pillar (s)	Strategic Objectives (s) (Outcome area)	Proposed Strategies (output area)	Proposed Intervention(s)/Activities	Sub Activities	2021	2022	2023	2024	2025	Responsibility
				5.12.2. Conduct piloting of the DQA tools	X	X	X	X	X	DNCD,HMIS and partners
				5.12.3. Carry out NCD DQA exercises in health facilities	X	X	X	X	X	DNCD,HMIS and partners
		Monitor the implementation of the NCD strategy	5.12 Conduct annual mid-term and end-term reviews	5.12.1. Develop review template	X					DNCD, County Partners
				5.12.2 Disseminate review template	X	X	X	X	X	DNCD, County Partners
				5.12.3 Consolidate review findings	X	X	X	X	X	DNCD, County Partners
				5.12.4 Hold NCD strategy review meeting	X	X	X	X	X	DNCD, County Partners
				5.12.5 Conduct end term data review workshops					X	DNCD, County Partners
				5.12.6 Conduct county end term data review validation visits					X	DNCD, County Partners
				5.12.7 Hold NCD strategy end term review workshop					X	DNCD, County Partners
			5.13 Conduct annual county support supervision	5.13.1 Incorporate NCDs in national and county support supervision tools	X	X	X			DNCD, County Partners
				5.13.2 Conduct annual county support supervision	X	X	X	X	X	DNCD, County Partners

9.2 Appendix 2: Cost Requirement by strategic Intervention (KES Million)

Cost By Key Pillars (s) and By Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost
Advocacy Communication and Social Mobilisation	**214.9**	**295.9**	**253.4**	**244.7**	**234.4**	**1,243.2**
Advocate for prioritization and resource allocation for NCDs interventions within the MOH	3.1	3.0	3.0	3.0	3.0	**15.2**
Advocate for development and implementation of NCDs prevention and control benefit package by insurance companies	-	0.4	0.3	-	-	**0.7**
Advocate for enactment and enforcement of NCDs risk factors regulations	1.1	1.4	1.4	1.1	1.1	**6.1**
Advocate for full integration of NCDs in the UHC and PHC framework	0.3	1.0	0.7	0.3	0.3	**2.5**
Advocate for institutionalizing of integration of NCDs prevention and control in County Strategy into the County Integrated Development health plans (CIDP) and other county plans	0.3	12.3	1.7	1.6	1.6	**17.5**
Build the capacity of PLWNCDs support groups in creating NCDs awareness	5.7	5.7	5.7	5.7	5.7	**28.5**
capacity building for community resource persons (CHAS/CHVs) on NCDs prevention and control	10.3	12.5	10.3	10.3	10.3	**53.7**
Commemorate the World NCDs health days (cancer, diabetes, mental health etc)	164.5	164.5	164.5	164.5	164.5	**822.4**
Develop and disseminate NCDs prevention and control advocacy, communication and social mobilization framework	1.5	8.5	6.4	-	-	**16.4**
Develop and disseminate social mobilization materials	-	5.2	0.6	0.6	0.6	**7.1**
Develop NCD prevention and management messages	20.5	25.5	25.5	25.5	25.5	**122.7**
Disseminate key messages on NCDs prevention and management to the general population	-	13.5	13.5	13.5	13.5	**54.0**
Disseminate NCD investment case report (Combating Non-Communicable Diseases in Kenya – World Bank) and the Kenya NCDI Poverty Commission report	0.0	0.0	4.8	3.9	0.0	**8.8**
Hold community meetings for special groups (Youth, Women, PWD) to educate on NCD prevention and control	-	8.0	-	8.0	-	**16.0**
Integrate NCD ACSM framework with other existing communication frameworks e.g. HIV, TB, Malaria, RH	0.4	0.4	0.4	0.4	0.4	**1.8**
Launch and Disseminate the NCD strategy 2021-2025 across the 47 counties.	4.1	8.5	8.2	-	-	**20.8**
Mapping and capacity building for community based social mobilizers on NCDs prevention and control	2.9	25.6	6.4	6.4	7.9	**49.2**
Health System Response for Management of NCDs	**54,682.1**	**67,154.8**	**75,261.0**	**81,540.4**	**82,459.5**	**361,097.8**
Develop guidelines for integration of services	-	14.9	-	3.3	-	**18.2**
Develop quality improvement framework anchored in the Kenya Quality Model for Health for NCDs	-	11.5	-	-	-	**11.5**
Align and implement HRH needs for NCD at national and county levels as per the HRH Strategy	-	4.7	2.4	0.1	0.1	**7.2**
Capacity building of CHAs and CHVs on NCD prevention and management at PHC	-	846.8	1,139.6	1,146.6	1,139.6	**4,272.6**
Centres for Excellence for NCDs	2,413.0	2,413.0	2,413.0	2,413.0	2,413.0	**12,065.2**
Conduct national quantification and costing of NCD HPTs	-	-	31.3	-	-	**31.3**

Cost By Key Pillars (s) and By Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost
Define, develop, and disseminate essential NCD management package for UHC	6.3	-	-	-	-	**6.3**
Develop a framework for establishment and management of NCD patient support groups	-	3.1	7.8	-	-	**10.9**
Develop an NCD telehealth framework (teleconsultation, patient booking, reminders, and legal issues) anchored in the Kenya e-Health Strategy 2011-2017	10.9	4.5	4.5	-	-	**20.0**
Develop and disseminate integrated NCD model for primary health care and its implementation framework	14.9	-	-	-	-	**14.9**
Develop and implement trauma care framework	1.3	274.4	204.8	204.8	198.6	**883.9**
Develop NCD referral sops	-	13.2	-	-	-	**13.2**
Develop/review and disseminate national guidelines, job aids and referral protocols for NCDs (Diabetes, CVD, Cancer, Sickle Cell, Mental Health, Renal disease, Epilepsy, Injuries prevention and trauma care)	3.0	20.9	2.4	5.1	0.3	**31.7**
Drugs and supplies	51,836.8	57,498.9	63,460.6	69,688.0	77,956.4	**320,440.7**
Establish comprehensive county NCD wellness centers of excellence for NCD prevention	-	5.5	6.3	6.3	6.3	**24.4**
Establish quality management systems for NCD care in line with Quality-of-Care Certification	-	-	10.1	11.4	11.9	**33.4**
Establish regional comprehensive NCD centres by 2025	-	3.6	21.7	21.7	21.7	**68.8**
Integrate NCD education, institutionalize screening services and follow up (Blood pressure, blood sugar, cancer screening, Body Mass Index and waist circumference) into routine community health services and level 2 and 3 facilities in line with the Kenya Essential Package for Health	294.1	294.1	294.1	294.1	294.1	**1,470.3**
Map human resource for NCD needs across all levels of care	-	1.7	-	-	-	**1.7**
Monitor pharmacovigilance and post market surveillance for NCD HPTs	-	13.6	-	-	-	**13.6**
Monitor referral pathways	-	-	10.7	-	9.4	**20.1**
Negotiate with stakeholders to address cost reduction and pooled procurement for NCD HPTs to enhance patient affordability and to promote manufacturing and preferential procurement from local manufacturers	-	-	2.5	3.4	-	**5.9**
Print and Disseminate SOPs	-	-	14.3	-	-	**14.3**
Provide technical support to counties for implementation of integrated NCD model for PHC	-	4.5	4.5	4.5	4.5	**17.9**
Review and disseminate package for NCD in emergencies	3.2	1.6	-	-	-	**4.7**
Review and disseminate the rehabilitation, palliative care, and survivorship guidelines	-	-	12.2	-	-	**12.2**
Review existing data management tools to capture integration of services	-	1.8	-	-	-	**1.8**
Review the essential HPT lists for NCD management (Medicines, Medical supplies, lab)	-	0.1	-	-	-	**0.1**
Ring fence commodity NCD funds at County level	-	11.9	-	-	-	**11.9**
Strengthen capacity of service providers to meet demand for NCD service delivery	98.6	5,661.0	7,591.8	7,734.7	400.2	**21,486.4**
Strengthen representation of NCD-ICC within the UHC governance to improve decision making on NCDs	0.0	0.0	0.0	0.0	0.0	**0.2**

Cost By Key Pillars (s) and By Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost
Train health managers on HPT management as TOTs	-	14.9	3.4	3.4	3.4	**25.1**
Train health workers on integration of services	-	34.6	23.1	-	-	**57.6**
Minimize Exposure to Modifiable Risk Factors	**2,552.9**	**2,732.8**	**2,550.3**	**2,750.8**	**2,532.2**	**13,119.0**
Advocate for the inclusion of the NCD content on risk factor reduction in the CBC curriculum	1.0	149.6		149.5		**300.1**
Conduct community awareness on reduction of risk factors for NCDs through the Community strategy	36.9	28.4	28.4	28.4	28.4	**150.7**
Conduct preschool and school based NCD and oral health programs	2,372.1	2,390.9	2,372.1	2,390.9	2,372.1	**11,898.2**
Conduct situational analysis by mapping the existing policy and legal frameworks for minimization of exposure to modifiable risk factors.	1.4	-	-	-	-	**1.4**
Develop and disseminate health promotion messages on physical activity, healthy diets, reduction of alcohol consumption, ceassation of tobacco , stress reduction , environmental toxins, biological toxins, food safety	34.5	34.5	34.5	34.5	34.5	**172.3**
Develop and roll out NCD risk assessment tools among the population through CHVs and health care workers	32.9	44.6	8.1	41.0	8.1	**134.6**
Establish national regulatory and fiscal policies to promote healthy diets	0.5	2.5	23.0	11.7	11.7	**49.3**
Review and enact policies and legislations to limit exposure to environmental toxins and pollutants	-	0.5	3.7	8.0	4.9	**17.1**
Review of the Alcoholic Drinks control Act to include new emerging trends and behaviors (tax, advertisement, watershed hours)	23.4	23.9	24.4	34.4	23.4	**129.5**
Review of Tobacco Control Act to include new emerging tobacco products	2.5	9.6	7.9	-	-	**19.9**
Review policies on urban and cities design to promote physical activity	23.4	23.9	24.0	28.1	24.8	**124.1**
Scale up relevant communicable diseases vaccination among people living with NCDs to prevent their exacerbation and delay the progression of risk factors	24.3	24.3	24.3	24.3	24.3	**121.7**
Sectoral and Multisectoral Coordination and Governance	**137.4**	**166.3**	**163.5**	**161.9**	**149.1**	**778.3**
Build the Capacity of NCD Departments at both National and County levels	98.6	95.3	105.2	110.9	108.5	**518.6**
Build the capacity of the multi-sectoral committees	3.7	6.1	0.2	0.2	0.2	**10.4**
Develop an engagement framework with private sector	-	21.0	25.1	24.4	16.3	**86.8**
Develop an NCD policy	-	12.2	3.4	3.4	-	**18.9**
Develop NCDs resource tracking and accountability tool at national and county level	5.1	3.0	3.0	3.0	3.0	**17.3**
Develop regular policy briefs	-	2.2	-	2.2	-	**4.4**
Engage other health sector programs on the NCD Strategy and other NCD prevention and control initiatives	0.3	0.3	0.3	0.3	0.3	**1.5**
Ensure adequate representation of NCDs in the National Health Accounts process	0.5	0.5	0.5	0.5	0.5	**2.6**
Establish a high-level National Steering Committee at Cabinet level	0.0	-	-	-	-	**0.0**
Establish and operationalize a multi-sectoral information management system	3.1	0.1	0.1	0.1	0.1	**3.5**
Hold Biannual NCD ICC steering committee forums	0.1	0.1	0.1	0.1	0.1	**0.6**
Involve other non-health sectors in NCD-ICC	13.2	13.2	13.2	13.2	13.2	**66.1**

Cost By Key Pillars (s) and By Activities	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost
Mainstream NCD prevention and control initiatives into other sector specific plans	2.1	4.7	0.4	0.4	0.4	**7.9**
Participate in development of and integration of NCDs in other health sector policies, strategic plans and clinical guidelines	1.7	0.5	0.5	1.7	0.5	**4.9**
Sensitize private sector players on NCD policies, legislation, and responsible business practices	0.3	0.7	0.3	0.7	0.3	**2.3**
Support establishment of multi-sectoral County NCD Coordination Committees/Technical Working Groups	7.9	5.7	10.6	0.2	5.1	**29.5**
Update stakeholder's database	0.6	0.6	0.6	0.6	0.6	**3.0**
Surveillance, Monitoring, Evaluation, and Research	**412.6**	**145.5**	**154.5**	**125.7**	**106.6**	**944.9**
Conduct annual county support supervision	4.4	4.4	4.4	4.4	3.3	**20.9**
Conduct annual data quality audits	8.7	8.5	8.5	8.7	8.5	**42.8**
Conduct annual, mid-term and end-term reviews	0.4	0.4	12.0	0.4	12.0	**25.2**
Conduct basic, operational and implementation research on NCDs and injuries	21.1	21.1	21.1	35.4	21.1	**119.9**
Conduct capacity building on knowledge translation	0.2	0.5	3.9	3.0	3.0	**10.5**
Conduct population level surveys to assess NCD indicators including STEPS survey	290.0	-	-	-	-	**290.0**
Create efficient integrated EMR for NCDs	2.6	15.2	15.2	11.7	6.8	**51.5**
Develop, disseminate and distribute NCD data tools for surveillance and patient management	1.2	8.8	8.8	11.3	1.2	**31.3**
Establish a knowledge translation and dissemination framework for NCD research	-	5.6	-	-	-	**5.6**
Establish disease specific registries	71.6	71.5	71.5	41.5	41.5	**297.5**
Establish framework for adoption of innovations and ICT in NCD surveillance and care	-	0.2	-	0.2	-	**0.5**
Establish NCD research priorities and an implementation plan	3.1	-	-	-	-	**3.1**
Generate annual NCD Burden estimates	1.3	1.3	1.3	1.3	1.3	**6.3**
Hold best practice sharing forums	7.5	7.5	7.4	7.4	7.4	**37.3**
Identify potential sources of funding and partnership for NCD research, surveillance and M&E	0.5	0.5	0.5	0.5	0.5	**2.5**
Grand Total	**57,999.8**	**70,495.2**	**78,382.7**	**84,823.6**	**85,481.9**	**377,183.3**

9.3 Appendix 3: List of Reviewers

NAME	ORGANIZATION
1. Dr. Waqanivalu Temo	WHO Geneva
2. Dr. Yuka Makino	WHO Afro
3. Dr. Joseph Kibachio	WHO – South Africa
4. Dr. Vicki Pinkney-Atkinson	NCD Alliance- South Africa
5. Dr. Edward Kariithi	PATH
6. Dr. Peter Mokaya	NCD Alliance - Kenya
7. Dr. Jemimah Kamano	Moi University

9.4   Appendix 4: List of contributors in development of the NCD strategic plan

	NAME	ORGANIZATION
1.	Dr. Waqo Ejersa	MoH-DNCD
2.	Dr. Ephantus Maree	MoH-DNCD
3.	Dr. Gladwell Gathecha	MoH-DNCD
4.	Dr. Oren Ombiro	MoH-DNCD
5.	Zachary Ndegwa	MoH-DNCD
6.	Dr. Daniel Mwai	UoN
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2.	Dr. Ian Were	MoH - Office of the DG for Health
3.	Dr. JP Bor Malenya	MoH-DNCD
4.	Hannah Gitungo	MoH-DNCD
5.	Dr. Muthoni Gichu	MoH-DNCD
6.	Dr. Joyce Nato	WHO
7.	Scholastica Mwende Owondo	MoH-DNCD
8.	Dr. Valerian Mwenda	MOH-DNCD
9.	Matilda Mghoi	MOH-DNCD
10.	Anne Kendagor	MOH-DNCD
11.	Peris Mbugua	MOH-DNCD
12.	Dr. Ann Nasirumbi Magero	MOH-DNCD
13.	David Njuguna	MOH- Policy & Planning
14.	Veronica Kirogo	MoH-Nutrition
15.	Dr. Christine Wambugu	MoH-Adolescent and School Health
16.	Dr. Jonah Maina	MOH-DHPT
17.	Dr. Eunice Gathitu	MOH-DHPT
18.	Diane Kamar	MOH-HMIS
19.	Edward Konzolo	Stroke Association of Kenya
20.	Christine Wangombe	Renal Patients Society of Kenya

21.	Dr. Lydia Kaduka	KEMRI
22.	John Mose	National Treasury
23.	Fridah Kathure	National Treasury
24.	Thomas Shamalla	Ministry of Interior & Coordination of National Government
25.	Robert Kinge	State Department for Gender
26.	Purity Wachuka Kamau	MOITED-SDI
27.	Dr. Frank S. Ndakala	Ministry of Education
28.	Dr. Edward Kariithi	PATH
29.	Dr. Lilian Mbau	Kenya Cardiac Society
30.	Dr. Joy Mugambi	Baringo County
31.	Dr. Ronald Kibet	Bomet County
32.	Dr. Martin Mwangi	Nyeri County
33.	Dr. Christine Keitany	Kiambu County
34.	Dr. Sarah Amadi	Kajiado County
35.	Dr. Eva Njenga	NCD Alliance-Kenya
36.	David Makumi	NCD Alliance-Kenya
37.	Gideon Ayodo	NCD Alliance-Kenya
38.	Dr. Josphat Samoei	PATH
39.	Dominic Mutai	PATH
40.	Charles Muriu	PLAN Kenya
41.	Dr. Lilian Mwaura	FEHM
42.	Dr. Zipporah Ali	KEHPCA
43.	Celine Awuor	IILA
44.	Dr. Samuel Oti	International Development Research Centre
45.	Beatrice Gachambi	MSF
46.	Elijah Gichora	PLAN Kenya
47.	Robinson Obunga	PLAN Kenya
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REPUBLIC OF KENYA

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NATIONAL STRATEGIC PLAN
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2021/22 - 2025/26