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Ministry of Health

National Cancer Control Monitoring, Evaluation, Accountability and Learning (MEAL) Framework 2023-2027

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Abbreviations and Acronyms

CASCO	County AIDS and STIs Coordinator
CHIS	Community Health Information System
CHSSP	County Health Sector Strategic Plan
CIDP	County Integrated Development Plan
CoG	Council of Governors
CRAF	Common Results Accountability Framework
DQA	Data Quality Audit
HBV	Hepatitis B Virus
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
HPV	Human Papilloma virus
HRIO	Health Records and Information Officer
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
KHIS	Kenya Health Information System
KIHBS	Kenya Integrated Household Budget Survey
KNBS	Kenya National Bureau of Statistics
KNH	Kenyatta National Hospital
KUTRRH	Kenyatta University Teaching, Research and Referral Hospital
M&E	Monitoring and Evaluation
MEAL	Monitoring, Evaluation, Accountability and Learning
MICS	Multiple Indicator Cluster Survey
MOH	Ministry of Health
MTRH	Moi Teaching and Referral Hospital
NCCP	National Cancer Control Program
NCCS	National Cancer Control Strategy
NCDs	Non-Communicable Diseases
NCD-ICC	Non-Communicable Diseases Intersectoral Collaboration
NCI-K	National Cancer Institute -– Kenya
NGAO	National Government Administration Officers
OJT	On-Job Training
ImPACT	Integrated Mission of Program of Action for Cancer Therapy
QA	Quality Assurance
QIT	Quality Improvement Team
RH	Reproductive Health
TB	Tuberculosis
TWG	Technical Working Group
UHC	Universal Health Coverage
WHA	World Health Assembly

Foreword

Dr. Patrick Amoth, EBS

This cancer monitoring and evaluation accountability and learning framework is the first such document developed for cancer control in Kenya. It is designed to ensure efficient and effective delivery of the planned outcomes of the National Cancer Control Strategy 2023-2027 by reviewing performance, using evidence for timely and strategic decision-making, and learning from experience, for results achievement. The regular monitoring of indicators will enable tracking progress towards identified results, and checking whether the initial model is valid or will need to be adapted during implementation to suit the changing circumstances.

An important aspect of monitoring the National Cancer Control Plan is having readily available information on the national systems. This will require collaboration and support for strengthening the data collection systems and improvement of data quality, analysis and use to inform policy and planning. Subnational monitoring at county, subcounty and facility level will be particularly crucial in addressing issues and taking appropriate corrective action and ensuring adequate budgetary provisions are made towards improving county cancer control programs. The joint monitoring of county-specific key performance indicators with the direct involvement of county health management teams will improve local management of services and achieve quick results.

The framework provides a comprehensive guidance and a harmonized approach to cancer information management, monitoring and evaluation through alignment of stakeholders' resources and actions to strengthen prioritized interventions. It will stimulate evidence-based decision-making, constructive policy dialogue to facilitate evidence-informed decision making and strengthening of operational cancer research capacity to generate evidence for decision-making.

The monitoring and evaluation subcommittee under the Strategic Information, Registration, Surveillance and Research Technical Working Group which reports to the Non-Communicable Diseases-ICC through the Cancer Technical Working Group will guide the implementation of the MEAL framework. I call upon all stakeholders to utilize the guidance provided and put in place relevant monitoring, evaluation and reporting structures towards a reduction in the preventable cancer burden in Kenya.

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

Acknowledgements

This Monitoring, Evaluation and Learning Framework has been developed against a backdrop of a robust policy framework in Kenya that provides a suitable environment for cancer prevention and control. It is aligned to the goals and aspirations of the new National Cancer Control Strategic Plan 2023-2027. It was developed through an extensive process involving experts and stakeholders from both public and private sector institutions. We sincerely appreciate the support from the offices of the Cabinet Secretary, Principal Secretaries, Director General for Health, Directorate of Family Health and Division of Non- Communicable diseases for their strategic guidance and support for the development of this document.

Dr. Mary Nyangasi

Dr. Hellen Kiarie

In a special way, we wish to recognize members of the Cancer Monitoring and Evaluation Technical Working Group who worked tirelessly to develop this document under the stewardship of Dr. Valerian Mwenda, who was the unit lead. They portrayed dedication to the whole process to ensure the document was completed. Special thanks to the Heads of the Strategic Programs (Malaria, National Tuberculosis and Leprosy Program (NLTP) and National AIDS and HIV Program (NASCOP) whose Monitoring and Evaluation units provided tremendous support to this process built on their learned programmatic experiences over the years.

The contributions of other Ministry of Health divisions, departments and that of the SAGAs such as the National Cancer Institute of Kenya and Kenya Medical Research Institute is also much appreciated. We also wish to recognize our development partners, the Clinton Health Access Initiative and the CDC for technical and financial support respectively. Lastly, special thanks to our external reviewer: Dr Moussa Bagayoko from the African Population and Health Research Center (APHRC) whose extensive inputs helped to improve this document.

We look forward to our collaboration in the implementation of this MEAL framework.

Dr. Mary Nyangasi
Head, National Cancer Control Program

Dr. Hellen Kiarie
Head, Monitoring and Evaluation

CHAPTER 1

Introduction

1.1 Overview

This Monitoring, Evaluation, Accountability and Learning (MEAL) plan is the results and performance framework that describes the indicators to be measured to track performance in the implementation of the National Cancer Control Strategy (NCCS) 2023-2027. The NCCS is organized into five priority areas: (1) prevention and early detection, (2) Cancer Imaging, Pathology and Laboratory Medicine Diagnostic Services (3) treatment, palliative care and survivorship, (4) advocacy, partnerships, coordination and financing and (5) strategic information, registration, research and surveillance (figure 1). The strategy includes principles, goals and strategic objectives to guide existing and future actions to control cancer. It also includes broad areas for action under each strategic objective. A well-functioning MEAL system is essential to track and assess progress towards achieving the NCCS goal of reducing cancer incidence, morbidity, mortality, cancer down-staging and improving survival rates in Kenya.

Figure 1: Pillars of the National Cancer Control Strategy, 2023-2027

1.2 Current Cancer Control Situation in Kenya

1.2 .1 Cancer burden in Kenya

Cancer is the third leading cause of deaths in Kenya and the second leading cause of NCD deaths in the country. According to the Global Cancer Observatory estimates, the annual incidence of cancer was reported as 42,116 cases in 2020. Similarly, the annual mortality was reported as 27,092 in 2020. The risk of developing cancer before the age of 75 years in Kenya is 16.2% (18% among women and 14.3% among men). The risk of death from cancer before the age of 75 years in Kenya is estimated at 11.6% (12.7% for women and 10.3% for men). Figure 2 shows the highest burden of cancers in Kenya. Of note is that the incidence of cervical, prostate and ovarian cancers in Kenya exceeds the global average.

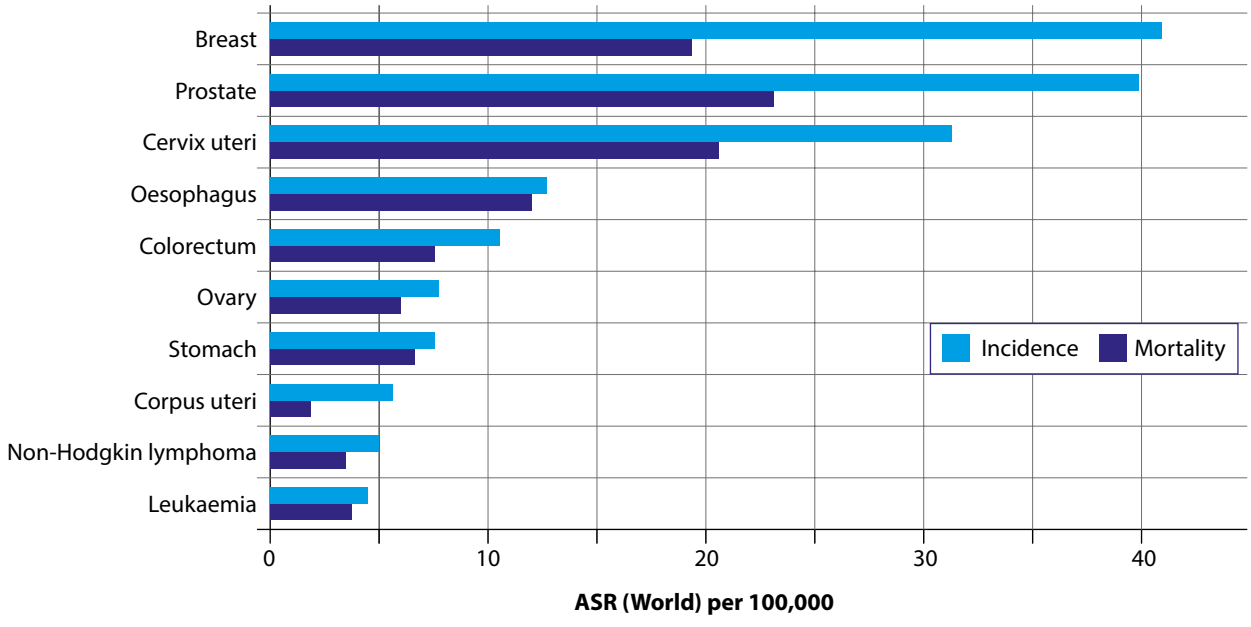
1.2.2 Cancer control structural framework in Kenya

Cancer prevention

It is estimated that up to 40% of cancers are preventable. Cancer prevention is a multi-sectoral function undertaken by various actors, both within and outside the Ministry of Health, to reduce risk of an individual developing cancer by minimizing exposure to risk factors. These interventions include tobacco control, promotion of healthy lifestyles, environmental protection and securing the living and working environment from carcinogens, vaccination (HBV and HPV), social and behavior change communication.

Cancer screening and early diagnosis

Screening aims to identify otherwise healthy persons who may have yet undiagnosed or asymptomatic cancer, or who may have risk-modifying or precancerous changes which



Data source: GLOBOCAN 2020
Graph production: Global Cancer Observatory (http://gco.iarc.fr/)

International Agency for Research on Cancer 2023
World Health Organization

Figure 2: Estimated Age standardized incidence and mortality rates in Kenya 2020 (Source: Global Cancer Observatory)

would confer an increased risk of cancer. Early diagnosis involves prompt identification of cancer symptoms and linkage to management to improve prognosis and outcomes. Various priority cancers are amenable for screening and/or early diagnosis, according to the national cancer screening guidelines. These include cervical, breast and colorectal cancers (population level screening); prostate and oral cancers (individualized screening). Cancer screening can take place across all the levels of healthcare provision in Kenya, from the community to tertiary level facilities.

Cancer diagnosis

Cancer diagnosis, through pathology and imaging, is conducted from level 4 facilities and above. The national cancer reference laboratory has been established to support counties with advanced cancer diagnostics as well as implement quality assurance for cancer diagnosis. The Managed Equipment Scheme (MES) project has provided imaging facilities in all counties.

Cancer treatment, Palliative Care and Survivorship

Currently, cancer treatment has been decentralized through a hub and spoke model, with the National Referral Hospitals (KNH, MTRH and KUTRRH) serving as the hubs (centers of excellence) and the regional cancer centers as the spokes. Figure 3 below shows the proposed catchment for each of the cancer centers in this model.

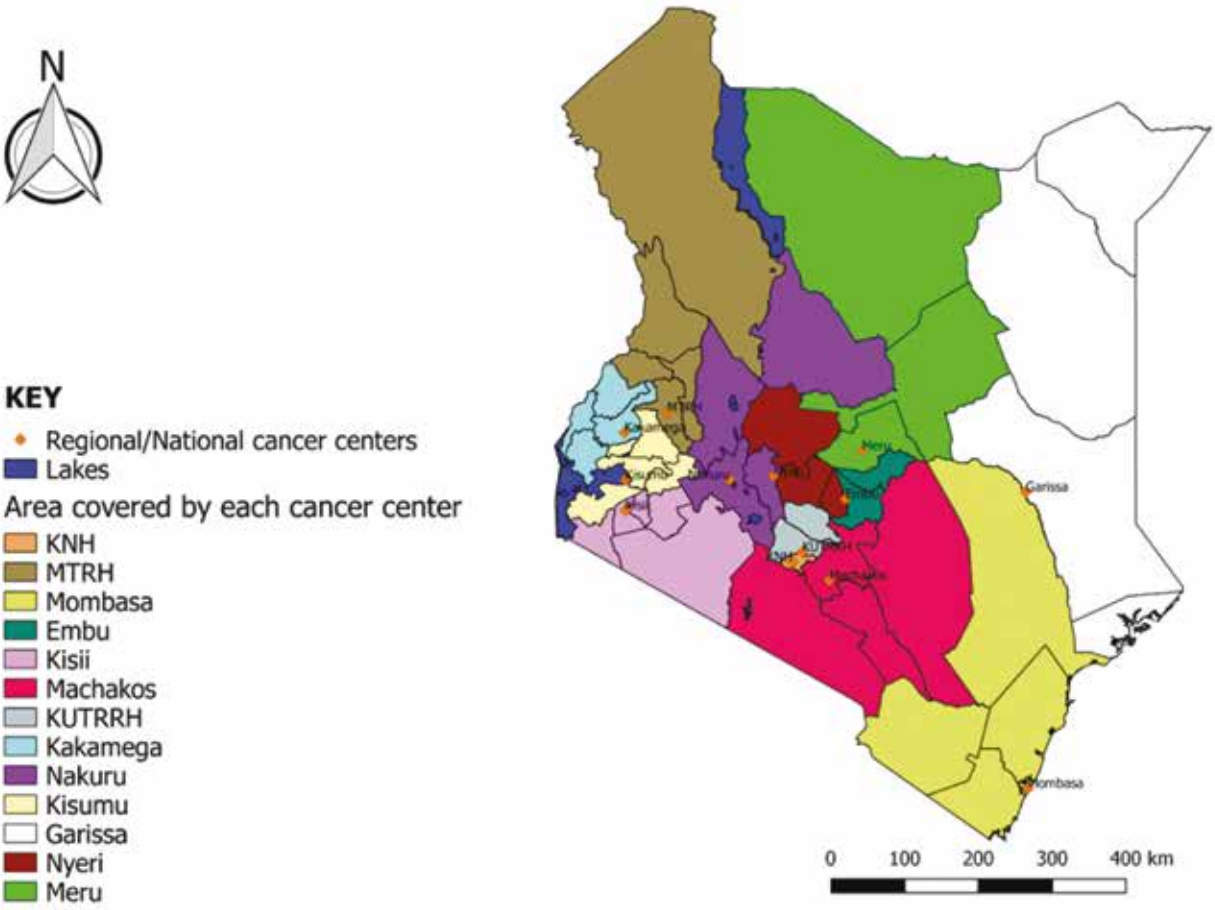


Figure 3: Distribution of cancer centers in Kenya

1.2.3 Situational Analysis of cancer M/E in Kenya

The Division of National Cancer Control Program (NCCP) has grown rapidly in the past five years due to increased mandate and number of cancer control interventions, with a growing scope of activities, the programme has required an increase in capacity to monitor and evaluate its activities.

The NCCP in conformity with the WHO recommendations has several reporting tools in respect to the various thematic areas. The following registers, cards and forms are used for cancer screening and treatment at various service delivery points in health facilities:

- Cancer Screening Card.
- MOH 412 Cancer Screening Register.
- MOH 745 Cancer Screening Monthly Summary.
- MOH 273 Cancer Treatment Register.
- MOH 746 Cancer Treatment Monthly Summary Tool.
- MOH 646 Cancer Facility Consumption Data Report and Request Tool.
- Referral Form to Cancer Screening facility.
- Referral Form from Cancer Screening Facility to other care providers.

There exists a National Oncology Dashboard where the data reported in the Kenya Health Information System is aggregated for programmatic monitoring and taking appropriate action. A National Oncology Electronic Medical Records Module has been finalized to enable digitalization of patients records which spans across the care continuum and will enable longitudinal tracking of clients and patients once deployed.

Various challenges face the M/E component of the National Cancer Control Program (and by extension, the quality assurance):

DATA CAPTURE

- The Kenya Health Information System does not track all the relevant indicators to inform an effective QA process.
- The entire cancer control continuum is not adequately captured by the current health information system.
- Limited data on screening infrastructure, processes, human resources and utilization of guidelines is routinely collected.
- Inadequate coverage (especially at population level), poor data quality and fragmentation of the cancer registries.
- Inadequate indicators and tools for reporting especially at community level
- Inadequate investment in priority Health information systems.

DATA UTILIZATION

- There is very minimal facility data analysis and utilization to inform quality improvement
- Inadequate capacity for data analytics and evidence use in producing reports
- Inadequate information sharing and sharing platforms.

DATA QUALITY

- Data quality problems, including under/over-reporting, misreporting and data entry errors; lack of regular data quality audits and reviews are undertaken, both at national, county and facility levels.
- Data Quality Audits are donor driven in many counties

1.2.4 Vision, Mission and core values of the Division of National Cancer Control Program

The vision and mission of the NCCP is aligned to the overall ministry of health vision and mission, to build a progressive, responsive and sustainable healthcare system to achieve a healthy, productive and globally competitive nation.

Vision

A nation free from preventable burden of cancer

Mission

To implement a coordinated and responsive cancer prevention and control framework that leads to reduced incidence, illness and premature deaths and improves experiences and quality of life of persons living with cancer by the year 2028.

Goal

To reduce premature mortality from cancer in Kenya by a third by the year 2028.

Core values

1. Community and survivor involvement: Cancer control is a whole-of-society approach, and cancer survivors are an integral part of the control efforts.
2. Sustainability: choose interventions that are feasible within the economic context of Kenya, and advocate for financing from both public and private actors.
3. Improved access: this includes financial access (cost of services), geographic access (availability of services within reasonable physical reach of the target population) and social access (acceptance/quality of services).
4. Patient-centered: cancer care should address patients' self-identified needs, respect their values, consider their preferences in decision-making and respond to their priorities for better health and wellness.
5. Evidence based innovations: selected interventions are backed by scientific evidence of efficacy.
6. Equity and inclusivity: everyone has an equal opportunity to prevent cancer, find it early, and get proper treatment and follow-up after treatment is completed.

1.2.6 The policy guidance for cancer monitoring and evaluation.

1.2.6.1 International policy directions on cancer control

Several international directives on cancer control are relevant to this national cancer M/E framework, including the Global cervical cancer elimination strategy, the global breast cancer initiative, the global childhood cancer initiative, the framework convention on tobacco control and the World Health Assembly resolution WHA 70.12 (Cancer prevention and control in the context of an integrated approach). The World Health Organization's periodic imPACT reviews are also relevant to guide progress in cancer management for member states. Key result areas and indicators in this M/E framework have been aligned to these global directives.

1.2.6.2 Kenya Health Policy

One of the aspirations of the Kenya Health Policy is availability of adequate health information for evidence-based decision making. The policy therefore obligates all healthcare providers to report on information emanating from their activities through established channels in a manner that meets safety and confidentiality requirements, and according to the health research and information policies, regulations, and standards set by the Ministry of Health. The policy further specifies the consumers of health information, that include health managers,

policymakers, clients and all other actors in the health sector, with a view to guiding their decision-making processes. The policy identifies strategies to improve data generation and use in the health sector, which include:

- Collaborating, harmonizing, and integrating data collection, analysis, storage, and dissemination mechanisms of state and non-state actors to ensure availability of adequate and complete information for decision making.
- Continued strengthening of accuracy, timeliness, and completeness of health information from the population and health facilities.
- Strengthening mechanisms for health information dissemination to ensure information is available where and when needed.
- Progressive utilization of information and communication technologies to aid service delivery.

1.2.6.3 Kenya Health Sector Strategic Plan (KHSSP) 2018-2023

The KHSSP identifies the reduction of burden from non-communicable diseases as one of the key strategic objectives for the health sector. The plan specifically identifies four cancer indicators for tracking.

- Percentage of women aged 25–49 years screened for cervical cancer.
- Percentage of women aged 25-49 years screened for cervical cancer in the past year.
- Cancer Incidence rate (per 100,000).
- HPV immunization coverage for 10-year-olds.

The Plan also provides for establishment of M&E units at both national and county level to conduct and coordinate monitoring of resources (inputs); service statistics; service coverage; client/patient outcomes (behavior change, morbidity); investment outputs; access to services and impact assessment.

1.2.6.4 Kenya Cancer Policy 2019-2030

The main objective of the Kenya Cancer Policy 2019-2030 is to provide a framework to comprehensively address cancer control in Kenya through the systematic implementation of evidence-based interventions for prevention, screening, timely diagnosis, treatment, survivorship and palliative care, financing, monitoring and research. Some of the specific objectives of this policy that have a bearing on M/E include:

- Strengthen cancer information systems, registration and surveillance.
- Identify and define a monitoring, evaluation and research framework for cancer.
- Set regulatory standards for all activities along the continuum of cancer care.

1.2.6.5 Non-communicable Disease Strategic Plan 2021-2025

The NCD strategy aims to improve M/E of NCD interventions in the country through alignment of stakeholders' resources and actions to strengthen prioritized NCDs interventions; evidence-based decision-making through availability and dissemination of good-quality evidence, constructive evidence-based policy dialogue to facilitate evidence-informed decision making and strengthening of operational research capacity to generate evidence for decision-making. The following cancer control indicators have been included as part of the fifteen priority indicators for NCD M/E in Kenya:

- Increase in women aged 25-49 years screened for cervical cancer.
- Increase in HPV immunization coverage for 10-year-old girls.

- Increase proportion of government allocation to NCDs.
- Relative reduction in the harmful use of alcohol.
- Reduction in prevalence of insufficient physical activity.
- Reduction in proportion of the population who ate less than 5 servings of fruits and/or vegetables on average per day.
- Reduction in prevalence of current tobacco use in persons aged 15+ years.
- Reduction in the proportion of households affected by indoor air pollution.

1.2.6.6 The National Cancer Control Strategy 2017-2022

The National Cancer Control Strategy, through its fifth pillar provides for an elaborate cancer M&E framework that builds on existing systems. It gives the MOH mandate to generate regular reports across the cancer continuum leveraging on routinely available data as well as data from research. It also provides for development of a cancer research agenda for the country, strengthening of coordination mechanisms, data use for action as well as human resource development on cancer M&E. It also highlights the roles of various actors in cancer M&E. A multi-disciplinary and multi-sectoral technical working group was established soon after the launch of the document to operationalize and track implementation of these aspirations which reports to the NCD-ICC through the Cancer Technical Working Group.

1.2.6.7 Ministry of Health M/E guidelines

The Guidelines identify M&E as a key component of any program that aims to continuously improve and provide better outputs and outcomes for its beneficiaries. They are aimed at institutionalizing M&E in the Health Sector and set standards for definitions of key M&E terminologies, organizational structures, staffing and partnerships. They seek to create a culture of learning based on utilizing M&E information as a basis for decision making and accountability in management, governance and practice.

1.2.6.8 Health Information System Policy (2014-2030)

The Health Information Policy aims to promote one health information system in Kenya, promote use of health information for evidence-based decision making, enhance collection of sufficient, relevant, reliable and quality health statistical data pertaining to the health status of the nation, health services coverage and utilization, promote and encourage production and dissemination of timely, easily understood health and health related information for evidence based decision making by managers at various managerial levels within the health sector and enhance closer cooperation between producers and users of health related data and information through regular meetings, seminars, training and publications, among others.

To achieve these objectives, the policy recommends integration of data collection and dissemination, guidelines and legal framework for reporting and feedback, standardization and harmonization of Information Systems, application and use of Information and Communication Technology, Data Management (Recording and Analysis), Dissemination and Use, Access to Health and Health related Data and Information, Storage, Confidentiality and Security of Health Data and Information, Evaluation Criteria for HIS and sustainability plan.

The health sector M&E has adopted existing health information system (HIS) tools and uses the national health information system and a unified database, Kenya Health Information System (KHIS), as a routine aggregated reporting system, to enhance harmonized data collection, analysis and dissemination, as stipulated in Kenya's health policy.

1.2.6.9 The Data Protection Act 2019 (and the data protection regulations 2021)

This legislation and regulation stipulate the responsibilities of people and institutions that handle personal data and their responsibilities concerning its protection and accountability. Health is considered "sensitive personal data" as per the definition in this act, and therefore all data collection, storage, processing and dissemination of health-related data must abide by the provisions of this law. It defines data subjects, data processors and data controllers, and assigns responsibilities to each. All M&E activities within this framework will reference and abide by the provisions of this act; M&E dissemination, training and mentorship undertakings will also be utilized to increase awareness on this legal framework for data protection in Kenya.

1.2.7 Process of Development of Monitoring and Evaluation Framework 2023-2030

The cancer M&E framework 2023-2030 is the first cancer M&E framework to be developed in Kenya. It is anchored on the ideals and aspirations of the Kenya cancer policy 2019-2030 and the National Cancer Control Strategy. Development of the cancer M&E framework was one of the interventions under the strategic objective of improving cancer monitoring and evaluation in the NCCS 2017-2022.

The framework was developed through a comprehensive participatory and consultative process guided by the Ministry of Health's Division of Cancer Control Program through the National M&E Technical Working Group. A team of M&E professionals from government agencies, development and implementing partners participated in the development of the framework. The development of the framework was guided by various policy and practice documents including the Kenya health policy 2014-2030, KHSSP 2018-2023, the Kenya Cancer Policy 2019-2030, the MoH M&E guidelines, the health information system policy 2014-2030, the NCD strategy 2021-2025, the NCCS 2017-2022 and various international agreements and resolutions (global cervical cancer elimination strategy, global breast cancer initiative, global childhood cancer initiative and the World Health Assembly resolution 70.12).

The development process was preceded by a review of the existing cancer M&E/information and a detailed and extensive desk review of relevant documents including policy documents listed above. A writing technical team was constituted, bringing together officers from M&E units of various MoH divisions and programs, to generate the first draft of the framework. Subsequently, further stakeholder consultations with donors, development and implementing partners as well as county officials among others were conducted through TWG and stakeholder forums. Afterwards, the framework document was subjected to both internal and external validation processes, as well as external review, before launch, dissemination and implementation.

1.2.8 Scope

1. Indicators type

Traditionally, only outcome indicators are monitored in the cancer control programs. While this provides information on the downstream performance of the program, upstream factors like training and retention of staff, utilization of guidelines and requisite infrastructure are not evaluated in a continuous and timely manner. Deficiency in processes is only detected late, as part of inquiry on poor outcome indicators. This MEAL framework will track four broad categories of indicators:

a) **Structural/input indicators** encompass such issues as the amount and adequacy of

facilities and equipment, human resources as well as the administrative structure and programs.

b) **Process indicators** measure the program's activities and outputs (direct products/ deliverables of the activities). Together, measures of activities and outputs indicate whether the program is being implemented as planned.

c) **Outcome indicators** measure whether the program is achieving the expected effects/changes in the short, intermediate, and long term.

d) **Impact indicators** reveal the long-term effects of the interventions. These usually are the longest-term/most distal indicator types.

2: Key focus areas along the cancer control continuum

I. Cancer prevention: control of cancer risk factors.

II. Cancer screening:
   - o Cervical cancer
   - o Breast cancer
   - o Colorectal cancer

III. Cancer diagnosis, treatment, palliative care and survivorship for priority cancers.

IV. Cancer control health system strengthening, advocacy, partnerships and financing.

V. Strategic information, surveillance, registration and research.

1.2.9 Basic Concepts of Monitoring, Evaluation, Accountability and Learning (MEAL)

Monitoring and evaluation will systematically track the progress of suggested interventions and assess 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 cancer control 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.

Monitoring refers to the routine tracking of program resources, activities and results, and analysis of the information to guide program activities implementation. **Evaluation** refers to the periodic (mid-term, final) assessment and analysis of an on-going or completed program. **Learning** is the process through which information generated from M&E is reflected upon and intentionally used to continuously improve a program's ability to achieve desired results (figure 4).

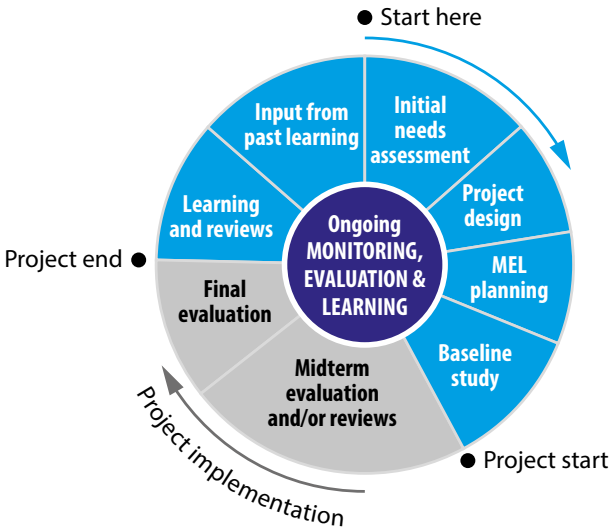


Figure 4: The Monitoring, Evaluation and Learning cycle.

Cancer control planning is an iterative and continuous process that utilizes information and feedback to improve subsequent cycles of the planning/implementation. Therefore, M/E is a critical input to achieve stated national cancer control objectives. The M/E process inputs in cancer control planning include data collection, data analysis, dissemination and follow-up. The relationship between the M/E framework and cancer control planning cycle is shown in the figure 5 below.

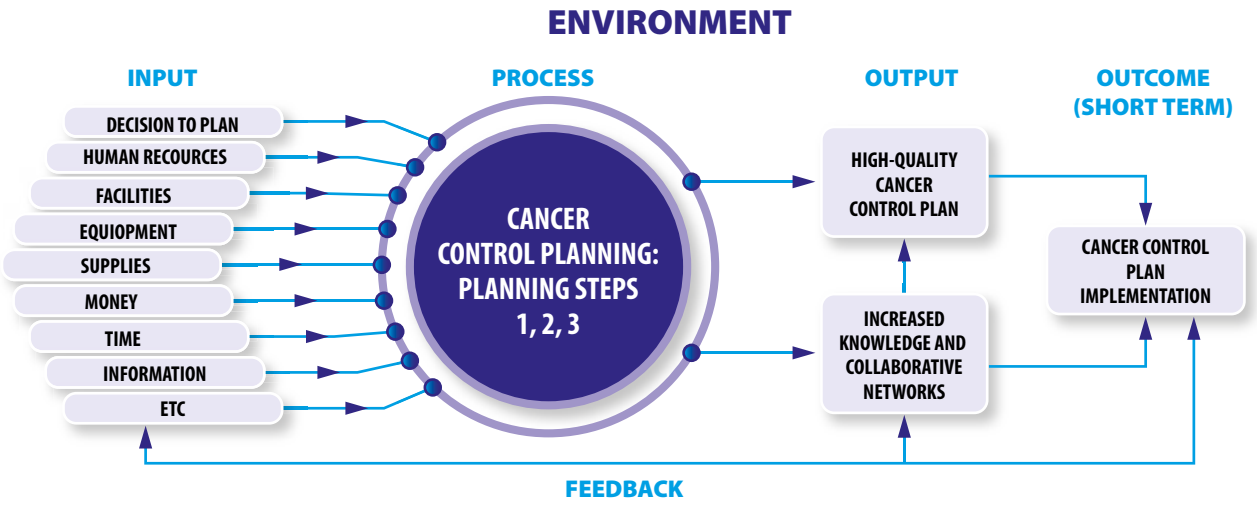


Figure 5: Monitoring and Evaluation planning and feedback cycle. (Source: Cancer control: knowledge into action: WHO guide for effective programmes; module 1)

Examples of indicators

Below are examples of each type of the five indicators described above:

- **Input indicators**: resources needed for the implementation of an activity or intervention.
  - Policies, human resources, materials, financial resources are examples of input indicators.

- **Process indicators:** measure whether planned activities took place.
  - Examples include holding of meetings, conduct of training courses, distribution of medicines, development and testing of health education materials.

- **Output indicators**: adds more details in relation to the product ("output") of the activity.
  - Examples: number and categories of health providers trained in case management or communications skills, the number and type of radio spots produced and broadcast.

- **Outcome indicators**: refers to the objectives of an intervention, which is its 'results', its outcome. They are the result of both the "quantity" ("how many") and quality ("how well") of the activities implemented.
  - Example: the outcome of a training of health providers in cervical cancer screening should be increasing screening coverage, e.g., the proportion of eligible women screened by the trained health providers .

- **Impact indicators:** refer to the health status of the target population.
  - Example: reduction in cervical cancer mortality.
  - These indicators do not show progress over relatively short periods of time.

- Note: the logical flow of indicators described above enables a more regular and frequent monitoring of changes.

CHAPTER 2

Cancer Monitoring, Evaluation, Accountability and Learning Framework in Kenya

2.1 Goal and Objectives of the MEAL Framework

2.2.1 Goal

The goal of the cancer MEAL framework is to establish a system that is comprehensive, fully integrated and well-coordinated to guide the monitoring and evaluation of the National Cancer Control Strategy 2023-2027 and serve as an accountability and learning framework for cancer stakeholder.

2.1.2 Objectives

- To provide guidelines on data collection, reporting, feedback and use for cancer programmes.
- To monitor and evaluate quality of cancer data and activities.
- To facilitate tracking and evaluation of performance of set targets.
- To produce and promote data for use at all levels to inform decision making.
- To contribute towards strengthening the cancer information component of health systems.
- To develop a supervisory framework to facilitate high quality data collection, collation, analysis, reporting and use at all levels.
- To strengthen the operational research capacity and coordination mechanism at national and county levels to generate evidence to inform decision making.
- To provide a framework for the systematic linkage of cancer indicators at national and county levels.
- To rally partners and stakeholders to a common approach to reporting on cancer.
- To provide an accountability and learning framework for the various stakeholders both at national and county levels.

2.2 Rationale

The cancer Monitoring, Evaluation, Accountability and Learning (MEAL) framework 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 outcome and impact indicators and targets that have been selected by the stakeholders. This would result in overall improved efficiency, transparency, and accountability in cancer control programming.

The cancer MEAL framework 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 framework will serve as a plan for monitoring and evaluation and will clarify:

1. What is to be monitored and evaluated?
2. What activities need to be monitored and evaluated?
3. Who is responsible for monitoring and evaluation of the activities?
4. When monitoring and evaluation activities are planned.

5. How monitoring and evaluation will be carried out.
6. How the results of the evaluation will be disseminated and lead to action.

The framework will put in place a comprehensive guidance and a harmonized approach to cancer information management, monitoring and evaluation.

The Framework will enable real time improvement; identify unintended consequences; facilitate the learning of best practices and communication of results. The outputs of the M&E system will help to answer questions relating to delivering on commitments, accountability, implementing partners and other players, effectiveness of interventions and consistency of planned interventions with targets. The framework will define progress review and feedback mechanism for results-based accountability between the national and county levels and provide guidance on data collection, analysis, use and reporting of cancer control information for improved programming.

2.3 Common Results Accountability Framework

A set of key indicators and targets referred to as the Common Results and Accountability Framework (CRAF). The CRAF uses a logical results framework process at three levels (impacts, outcome and output). The targets are derived from the Global Strategy to accelerate the elimination of cervical cancer as a public health problem; the global Non-Communicable Diseases (NCD) nine voluntary 2025 targets, the Global Childhood Cancer Initiative, the National Breast Cancer Action Plan 2021-2025, the national cancer policy 2019-2030 and the NCD Strategic plan 2021/22-2025/26. Table 1 below highlights the impact indicators.

Table 1: Common Results Accountability Framework: Key indicators

Indicator	Indicator description	Baseline (2021)	Target (2030)	Data source
Cancer mortality rate	Number of cancer deaths per 100,000 population	103.2	92.9	National cancer Registry, Global Cancer Observatory
HPV vaccination coverage	Proportion of girls that are fully vaccinated against HPV by age 15 years	58%	90%	KHIS
Cervical cancer screening coverage	Proportion of women 25-49 years screened for cervical cancer	31%	70%	KHIS
Treatment for those with cervical precancerous lesions or invasive cervical cancer	Proportion of those with pre-cancerous lesions or invasive disease receiving treatment	26%	90%	KHIS
Breast cancer screening coverage	Proportion of women who undergo screening as a proportion of the eligible population (women 40-74 years)	1%	30%	KHIS
Proportion of cancer cases diagnosed in advanced stages	Proportion of cancer cases diagnosed at stage 3 or 4	69%	40%	National cancer Registry

Indicator	Indicator description	Baseline (2021)	Target (2030)	Data source
Colorectal cancer screening coverage	Proportion of eligible people screened for colorectal cancer (people aged 45-75 years)	<1%	30%	KHIS
Childhood cancer five-year survival rate	Proportion of childhood cancer cases surviving five years after diagnosis	20%	60%	National cancer Registry
Palliative care services access level	Proportion of cancer patients assessing Palliative Care (PC) Services	2%	50%	KHIS
Cancer control financing levels	Cancer prevention and control budget as a proportion of total health budget	0.8%	10%	National Health accounts

2.4 Indicators by Key Result Areas (KRAs)

The table in **annex 2** highlights the input, outputs, outcome and impact indicators, together with baselines (where available), means of verification, frequency of verification and the lead agency responsible for verification. Each KRA has an outcome with several outputs (expected results) and their respective indicators.

2.5 Monitoring and Reporting

Monitoring of the Kenya National Cancer Control Strategy activities as guided by the 5 pillars of the strategic plan will be done through routine data collection, collation, analysis, interpretation and dissemination of data using standardized tools and procedures. The frequency of monitoring the activities will be undertaken monthly, quarterly and annually as outlined in the reporting frequency in the results framework. Monitoring of implementation of programmes within the 5 pillars will focus on inputs and activities, whereas results monitoring will focus on outputs and outcomes and finally situation monitoring will focus on the status of cancer, for example coverage of screening of cervical cancer in women aged 25-49 years, uptake of HPV vaccination etc. Each County will be expected to carry out population cancer screening for mainly breast, cervical and colorectal cancer in line with National cancer screening guidelines. In addition, counties will adopt standard guidelines in setting up comprehensive cancer centers and therefore the counties will also monitor activities monthly, quarterly and annually and document the findings. The monitoring will be conducted through the following steps: reference to the results framework, planning for monitoring, selection of monitoring tools and approaches, data collection and analysis, communication and reporting of findings and taking of corrective action.

The monitoring steps are elaborated below:

I. **Reference to the results framework**: The Common Results Framework, the 5 pillars in the NCCS and process indicators will be the main basis of monitoring. The monitoring activities and resources will hence ensure that data on priority indicators are available.

II. **Planning for monitoring**: This will include deciding on which data will be collected, by when and how. The monitoring plan should link to the monitoring and information system such as Kenya Health Information System, population-based surveys e.g., STEPS surveys, KDHS, surveillance systems

etc. Key stakeholders at national and county level for example the M&E teams will need to consult other programs in the Ministry at the planning stage. Resources should also be planned for, including human and financial. At this point it is also important to consider how the collected data will be utilized to inform policy and planning.

III. **Selection and development of monitoring tools and approaches**: Quality data on the indicators in the results framework should be collected using appropriate tools and methods. The Strategic Information, Registration, Surveillance and Research Technical Working Group will need to ensure various data collection tools e.g., for routine data collection at facilities and population-based surveys are available and up to date and relevant for the data collection methods. Development of guidelines and tools is critical and will be aligned to global standards e.g., DHS programmes, STEPS methodology etc. Joint programme monitoring by government officials and implementing partners will also be useful in establishing progress and providing a mechanism for feedback.

IV. **Data collection and analysis**: In addition to what is covered in chapter 2, data collection will be based on the results framework indicators, cost, technical capacities and national/county level context. The data quality will be evaluated based on minimum criteria established in various national guidelines before performing analysis. The data analysis methods should be aligned to the guidance in the indicator compendium (Annex 2), technical manuals and thresholds. Data analysis should take into consideration gender disaggregation, equity and spatial distribution as far as possible. The findings should be validated by the National Cancer strategic information, registration, surveillance and research Technical Working Group using agreed on standards.

V. **Reporting and communication of findings**: Timely reports should be produced upon validation of findings. The findings should first be validated at the county and finally at the national level. For example, STEPs survey reports should be finalized within 1 month of validating the findings. The reports should be submitted to the Ministry of Health's National Cancer Control Program. The reports should be disseminated to the target audience e.g., the TWGs in the cancer program. To ensure improved uptake of findings, user friendly products such as short visual synopsis will be produced and disseminated using effective channels of communication. Figure 6 below illustrates the reporting

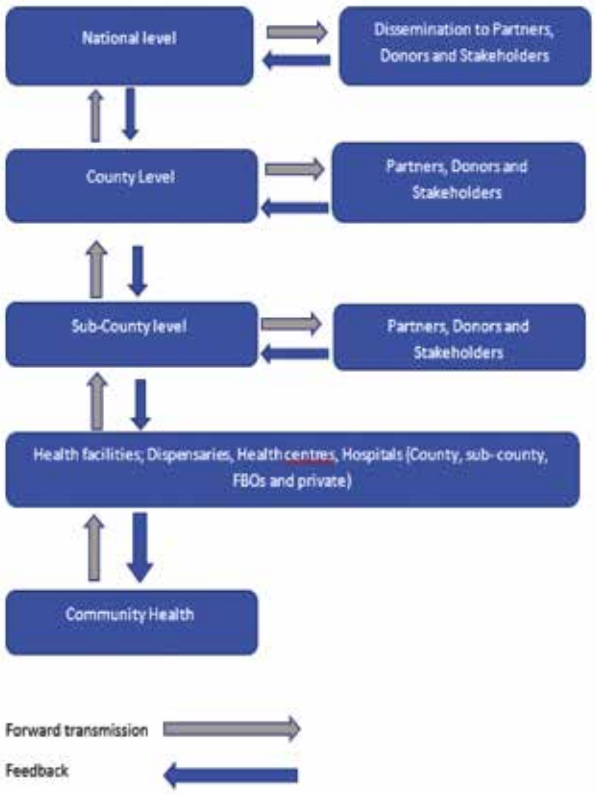


Figure 6: Reporting and feedback mechanisms

cycle of routine data from Kenya Health Information System as well as from the community level to the national level and the feedback mechanism from the national to the community level.

VI. **Taking corrective action**: The evidence generated will inform the kind of corrective action to be taken by various programmes and stakeholders to promote accountability and realization of results. Corrective actions may include the following:

Making changes to what is being done and how it is being done e.g., scale up and scale down of activities.

- Allocating resources more appropriately to emerging needs.
- Building capacity on various technical areas.
- Re-orienting advocacy and policy influencing.

VII. **Annual multisectoral and multi-stakeholder cancer strategy reviews (AMCSRs):** The focus will be on the progress of activities, processes and outputs in the annual work plans (Annex 6). The national level and counties are expected to conduct quarterly reviews using routine data from KHIS, cancer registries, field visits, implementation progress reports, technical working group coordination meetings feedback etc. The review meetings will have representation from various ministries and cancer stakeholders such as SAGAs, NGOs, UN agencies, academia etc. Review meetings will take place at national and county levels as well as through regional meetings 12 for learning exchange. Review reports at national and county levels outlining progress will be produced and corresponding recommendations implemented and follow up made.

2.6 Indicator compendiums and MEAL Implementation Matrix

The list of indicators per pillar is provided in the indicator compendium and implementation matrix provided as **annexes two** and **three**.

2.7 Evaluation

Evaluation is a process of collecting and analyzing information in order to understand the progress, success, and effectiveness of a project. The purpose of evaluation of the cancer division is to provide information for action e.g., decision-making on uptake of screening services, HPV vaccination coverage, strategic planning on how best the treatment services can be improved, division activity modification etc. as spelt out in the strategic plan.

This activity is carried out at the mid-term and end term of the strategic plan which is usually 5 years. The main focus of evaluation is to assess the progress of the key performance indicators of the Division of cancer control in the implementation of the activities in the strategic plan. This activity is carried out independently by a team consisting of cancer division staff, Partners and other relevant divisions in the Ministry of Health in close collaboration with National Cancer Institute of Kenya. The review exercise will be conducted with clear terms of reference, acceptable tools to be used in the review exercise.

The activity entails looking at what the Cancer Division intended to achieve i.e., goals and objectives in the whole continuum of cancer care as laid down in the strategy, what difference did it want to make and what impact did it want to make. These questions are answered during the evaluation process and used to inform the subsequent strategy.

2.8 Operational Research

Operational research is any research producing practically usable knowledge (evidence, findings, information etc.) which can improve programme implementation (e.g., efficiency, effectiveness, quality, scale up, access and sustainability) regardless of type of research (design, methodology). Operations research typically tries to modulate inputs and processes in programmes and aims to measure desired changes in outputs, outcomes and impacts. Operations research will use mixed methods approaches often interlinked:

- Secondary data analysis
- Primary level research – this can take different forms:
  - Exploratory/diagnostic focusing on problem identification e.g., formative or needs assessment.
  - Field intervention – quasi experimental and randomized cluster trials.
  - Evaluative and cost effectiveness studies.

The cancer programme will establish and maintain a database of operations research studies on cancer that will help identify existing information to inform interventions and policy. The cancer research activities will be coordinated through the Strategic Information, Registration, Surveillance and Research Technical Working group with linkages to relevant departments, programmes and the relevant counties. The working group will review, approve, facilitate and promote implementation of research of highest quality in Cancer to inform policy. The technical working group will also validate research findings and disseminate effectively to target audience to increase uptake of research findings.

Priority Research Actions:

1. Establish a budget line for cancer research.
2. Generate priority areas for cancer research.
3. Build capacity for cancer research.
4. Establish a well-coordinated information sharing mechanism for all stakeholders.

2.9 Research and Learning Implementation Matrix

Table 2 shows selected interventions to create a robust cancer research ecosystem and knowledge management in Kenya, together with activities to actualize them and indicators to enable tracking of their implementation.

Table 2: Research and learning implementation matrix.

	Expected Output	Key Performance Indicators	Activities	2023	2024	2025	2026	2027	2028
1	Funding for Cancer Research	Availability of cancer research budget at Ministry of health and partners	Advocate for a research budget by Ministry of Health and partners for cancer research Embed operational research activities in all program implementation	*	*	*	*	*	*

	Expected Output	Key Performance Indicators	Activities	2023	2024	2025	2026	2027	2028
2	Strategic research partnerships and linkages developed	Number of New Strategic cancer research partnerships established	Identify relevant cancer research expertise both in and outside the country. Formalize cancer research collaborations/ consortia targeting priority topics.	*	*	*	*	*	*
4	Cancer Research priority areas identified and mainstreamed/ consolidated into national and county policy documents and action plans	Number of research priorities mainstreamed in national and county agenda annually	Revise the national cancer research agenda. Disseminate the research agenda to various stakeholders. Ensure inclusion of the national cancer research priorities in national research priorities.	*	*	*	*	*	*
5	Improve quality and standards of cancer research in Kenya.	Cancer research methodology guidelines developed	Development of research guidelines	*	*				
		Increased knowledge and skills on cancer research methodologies by 2028	Trainings on research skills Conduct cancer research mentorship forums	*	*	*	*	*	*
		Standard Operating Procedures on conduction of research developed by 2028	Desk review and mapping out existing SoPs/ guidelines, standards that support research in Cancer. Customization of the SoPs to the Kenyan context.	*	*	*			
6	Increased conduction of Cancer research	Number of research projects (especially operational / implementation research) conducted by 2028	Identify research funding opportunities. Create research grant application teams/research conduction teams. Conduct and publish the research findings.	*	*	*	*	*	*

	Expected Output	Key Performance Indicators	Activities	2023	2024	2025	2026	2027	2028
7	Research findings disseminated to decision/policy makers	Number of Research findings disseminated to relevant stakeholders and policymakers. by 2028	Conduct cancer research dissemination symposiums/ conferences. Publish policy and evidence briefs	*	*	*	*	*	
8	Cancer Knowledge management platforms designed and developed	Knowledge platform research on Cancer established.	Creation of the platform/ improvement of existing platform (e.g., KHRO: https://khro.health.go.ke/#/); linkage of the platform with research/academic institutions	*	*	*	*	*	*

CHAPTER 3

Linking Data to Action

3.1 Sources of cancer control and prevention data and information

Cancer control programs draw data and information from various information systems within and outside the health sector (Figure). The main cancer data and information sources in Kenya include:

a. Routine surveillance: this includes service statistics data captured in various cancer surveillance tools (MoH 412, MoH 646, MoH 273), transmitted through the Kenya Health Information System.
b. The community health information system (eCHIS): this captures community level data on cancer referrals from the community. There are plans to integrate cancer screening in the community strategy and transmit this data through the eCHIS.
c. National surveys: various national surveys include cancer prevention and control indicators, including the KDHS, Stepwise survey, Global Tobacco Surveillance System.
d. International agencies: various international agencies provide information on cancer burden including incidence and mortality. This data supplements the locally generated data, especially in situations of low registry coverage, by modeling available data and extrapolating it to the entire population.
e. Vital statistics: this provides information on cancer mortality.
f. Cancer registries: registries, especially population-based cancer registries provide information on the cancer burden in the country, in terms of incidence, mortality and survival. The country has two functional population-based registries in Nairobi and Eldoret under KEMRI which collect data using CanREG tool and supported by the International Agency for Cancer Research (IARC) through the African Cancer Registry Network (AFCRN).
g. Research: various types of research projects provide information on cancer prevention and control. This includes operational, implementation science and epidemiological studies on cancer risk factors.

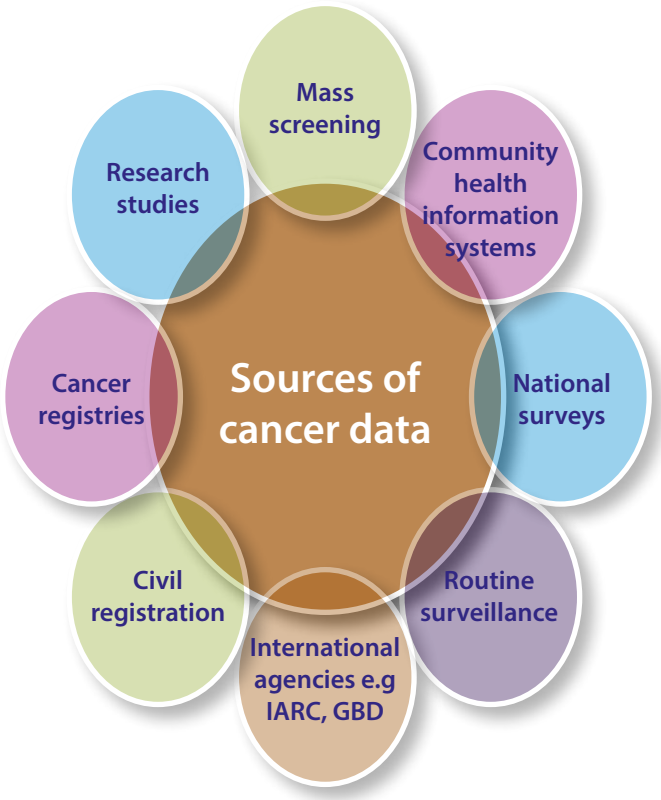


Figure 7: Sources of cancer data

3.2 Information Flow feedback and response mechanism

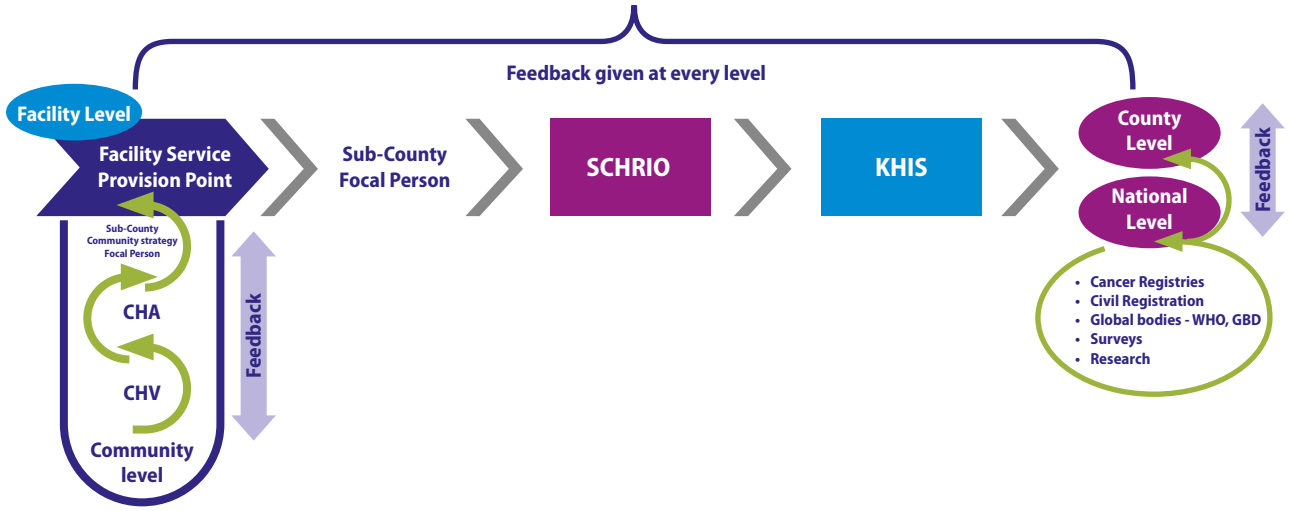


Figure 8: Information flow and feedback mechanisms

3.3 Data Processing and Analysis

Data processing and analysis will be both a national level as well as sub-national function, in the spirit of data consumption and utilization. The national level will strive to build capacity and conduct mentorship to the sub-national levels on cancer data processing, analysis and presentation. Data processing will be based on the results framework indicators, cost, technical capacities and national, county and sub county level context. The data quality will be evaluated based on minimum criteria established in various national guidelines before performing analysis. The data analysis methods should be aligned to the guidance in the indicator compendium (Annex), technical manuals and thresholds. Data analysis should take into consideration sex disaggregation, age categories, cancer types, cancer stages, geographical distribution in terms of county and sub-county level patterns. The findings should be validated by the Cancer Information Technical Working Group as well as the county and sub-county QIT using agreed on standards before dissemination.

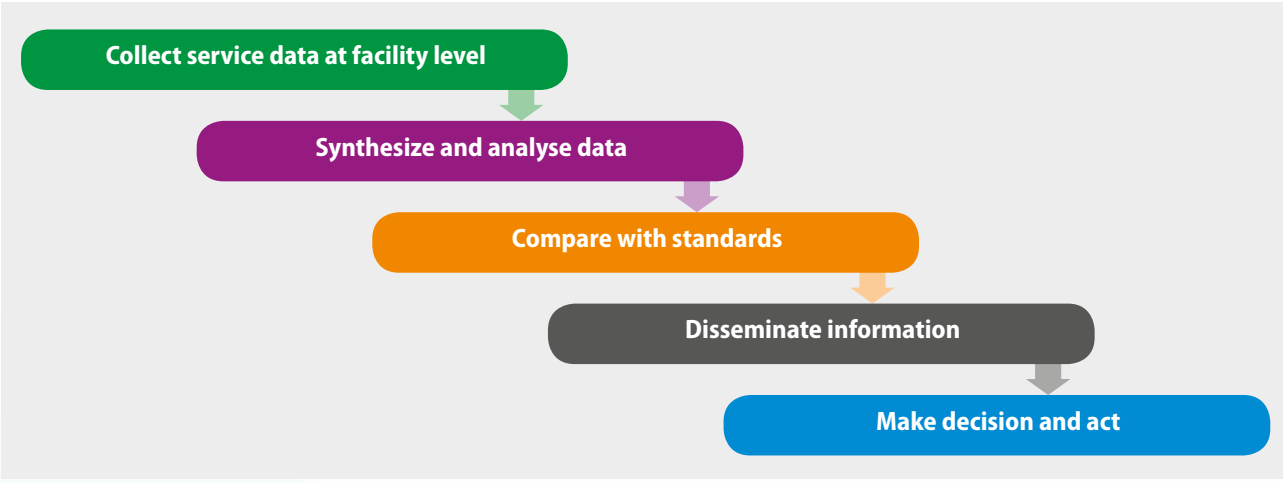


Figure 9: Stages in the health information continuum

3.4 Dissemination, Information Use, accountability and Learning

Data and information dissemination is the targeted distribution of information to specified audience groups with the intention of spreading knowledge and the associated evidence-based interventions for use in policy development, decision making, and programming.

The national M&E team, in consultation with the national cancer MER TWG is responsible for data analysis including the production of periodic reports and bulletins to inform stakeholders on the progress towards achieving cancer control targets. Research data for all studies undertaken will be made available for further analysis and the outputs should inform policy and design of interventions for cancer control.

Information products that will be generated include annual programme review reports, mid- and end-term cancer programme performance review reports, quarterly cancer prevention and control bulletins, policy briefs, and findings from commissioned research studies and evaluations.

Multiple dissemination channels will be used to ensure that information reaches relevant users. These channels will include consultative work planning and review meetings, planned trainings, the cancer control forums, world cancer days, other regional and international conferences, print and broadcast media, and the MOH website (www.health.go.ke).

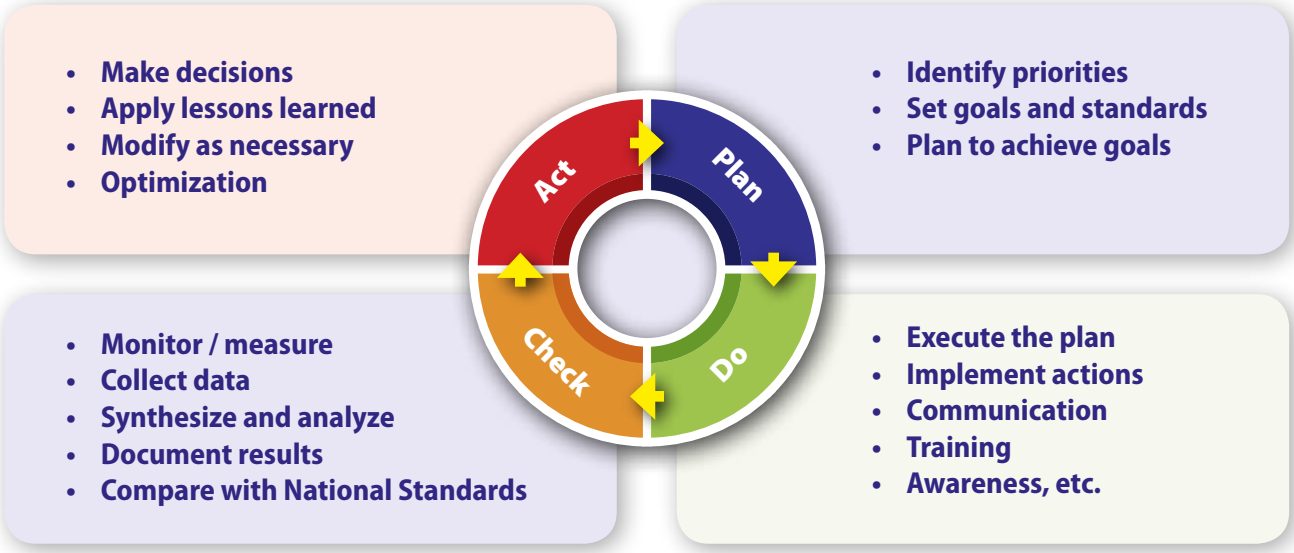


Figure 10: The PDCA cycle (adapted Karn G. Bulsuk [wikimedia commons])

3.5. Advocacy for cancer information and M&E

The products generated from cancer M&E information will be used to advocate for prioritization of cancer control interventions to high level decision makers. This also will give an opportunity to advocate to decision-makers to base their decisions on evidence generated from cancer M/E. This ultimately will promote evidence-based cancer prevention and control and improve care outcomes. This also offers an opportunity to advocate for adequate resource allocation towards cancer M/E activities both at national and county levels.

CHAPTER 4

Cancer Quality Improvement Framework

4.1 Overview

Provision of high-quality health services is a constitutional right of every citizen. High-quality health services involve the right care, at the right time, responding to the service users' needs and preferences, while minimizing harm and resource waste. Quality health care increases the likelihood of desired health outcomes and is consistent with the core principles of effectiveness, safety, people centeredness, timeliness, equity, integration of care and efficiency.

Seven main categories of interventions are critical for health managers and policymakers when trying to improve the quality of the healthcare system:

- Changing clinical practice at the front line.
- Setting standards.
- Engaging and empowering patients, families and communities.
- Information and education for health care workers, managers and policymakers.
- Use of continuous quality improvement programmes and methods.
- Establishing performance-based incentives (financial and non-financial).
- Legislation and regulation.

Cancer control services, across the entire continuum, are offered across all the levels of the Kenya Essential Package for Health; implementation of these interventions therefore would greatly improve cancer service provision, from screening to treatment and survivorship care.

4.2 Kenya Quality Model for Health (KQMH)

The KQMH is a conceptual framework for an integrated approach to improved quality of healthcare in Kenya. KQMH integrates evidence-based medicine through wide dissemination of public health and clinical standards and guidelines embedded with total quality management and patient partnership.

The principles underlying KQMH include:

- Leadership
- Customer orientation
- Involvement of people and stakeholders
- Systems approach to management
- Process orientation
- Continuous quality improvement
- Evidence-based decision making

4.3 A model for measuring quality care.

One approach in measuring quality is tracking outcome, process, structure and balancing measures, and planning quality improvement projects on the same. Each of these measures is vital for an effective quality improvement process, as described below:

Outcome measures: these reflect the impact on the patient and demonstrate the result of improvement interventions and whether the aim(s) have been met. Examples include improved patient experience, screening performance, cancer mortality and treatment adverse events.

Process measures: these reflect the way your systems and processes work to deliver the desired outcome. For example, the length of time a patient waits for a screening appointment or screening results and waiting time before receiving cancer treatment.

Structure measures (input measures): these reflect the attributes of the service/provider such as staff to patient ratios and operating times of the service.

Balancing measures: these reflect unintended and/or wider consequences of the change that can be positive or negative. An example of a balancing measure would be monitoring screening sample inadequacy rate as you try to reduce the turn-around time for sample collection.

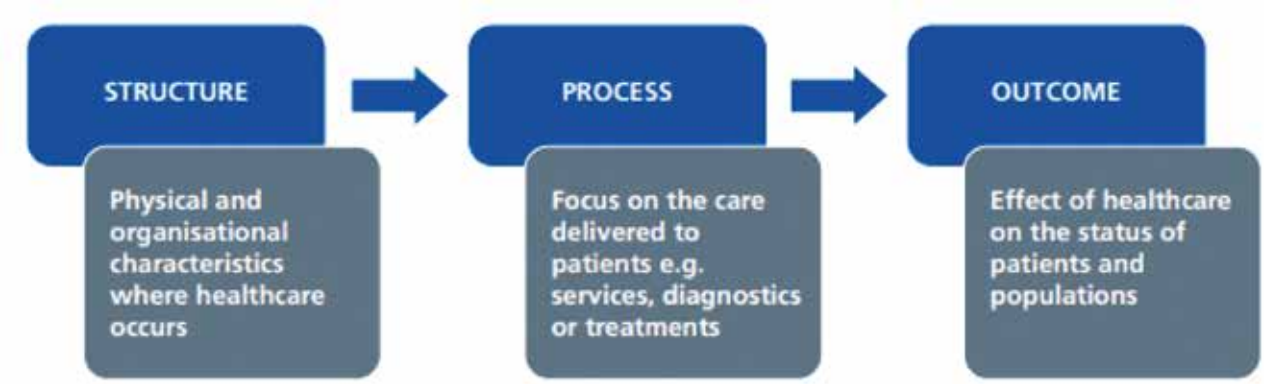


Figure 11: The Donabedian model for Quality Improvement (Donabedian, A (2005) Evaluating the Quality of Medical Care, The Milbank Quarterly, 83(4):691-729)

4.4 Foundations for high-quality care (adapted from the World Health Organization)

1. Health care workers that are motivated and supported to provide quality care.
2. Accessible and well-equipped health care facilities.
3. Medicines, devices and technologies that are safe in design and use.
4. Information systems that continuously monitor and drive better care.
5. Financing mechanisms that enable and encourage quality care.

(Delivering quality health services: a global imperative for universal health coverage. Geneva: World Health Organization, Organisation for Economic Co-operation and Development, and the World Bank; 2018. Licence: CC BY-NC-SA 3.0 IGO).

4.5 Cancer Quality improvement structure

The following is the proposed cancer quality improvement structure for various healthcare provision levels:

Table 3: Quality improvement structure

Level	Quality Improvement Management structure
National	National cancer monitoring, evaluation, surveillance and Research TWG
County	County QIT/County QI committee
Sub-county	Sub-county QIT
Health facility	Facility QIT
Service delivery points	Cancer Work Improvement team (WIT)

CHAPTER 5

Implementation Strategy for the M&E Framework

5.1 Capacity Development for Cancer Control Information and M&E

A health information system for cancer control exists, including cancer screening and treatment tools, and data flow through the Kenya Health Information System. It is a relatively new system hence reporting rates are low and data utilization is limited, especially at the sub-national levels. Cancer monitoring and evaluation at the national level is coordinated by the Strategic Information, Registration, Surveillance and Research pillar of the Division of the National Cancer Control Program. The national M/E team is involved in analysis and dissemination of cancer screening and treatment information for both national and sub-national levels. At the county and facility level, these functions are currently undertaken by non-communicable disease coordinators as well as the health records and information officers at the facility and sub-county levels. However, these officers have not been accorded adequate mentorship and supportive supervision on matters cancer reporting and data utilization although there is a module on Monitoring and Evaluation of Cancer Data available at the Ministry of Health Virtual Academy that can be accessed for online learning.

5.2 Cancer control M/E Workforce

Cancer control interventions are provided by various cadres of healthcare provision in facilities, including community health personnel, clinical teams, health records and information officers, cancer registrars and program managers both at national and subnational levels. All these cadres play various roles in effective M&E, especially through primary data capture at service provision points, transmission, processing, utilization and oversight. For effective cancer control and prevention M/E, the entire workforce requires to be trained and mentored on the M/E processes, data analysis and utilization.

5.3 Systemic capacity for cancer M and E

The critical components of an effective monitoring and evaluation system include data collection tools, data collection, transmission and processing procedures, feedback mechanisms and the supporting infrastructure. Currently, cancer M&E processes at service delivery points are largely paper based. Digital health platforms are necessary for supporting data and information flow across the entire cancer control continuum. In this regard, the National Cancer Control Program has recently finalized an Oncology Module in the Kenya EMR that has been piloted and ready for rollout to all facilities conducting cancer screening and treatment . However digital health solutions alone may be inadequate to improve cancer M&E performance. There is therefore a need to invest in other systems capacity such as training and mentorship, technical support, oversight and adequate human resource both in numbers and technical capacity.

There is also an urgent need to build capacity for cancer information use and utilization in informing both policy and practice, at national and county levels by creating structured dissemination fora, review meetings and quality improvement frameworks. M/E also should be mainstreamed in all cancer prevention and control activities undertaken by all stakeholders. These stakeholders require capacity-building and technical support, to support this M/E plan. These stakeholders will be tasked to be accountable for data collection and transmission, within their scope of operation.

5.4 Technical Coordination Mechanisms

The M&E technical coordination will align with Monitoring and Evaluation Framework of the Ministry of Health at the National and County levels. The technical M&E coordination structures will include the national cancer monitoring, evaluation and research Technical Working Group. At county level Cancer M&E will be coordinated by the county cancer Quality Improvement Teams supported by the health M&E units or the NCDs/ Cancer technical working groups.

The roles of these structures are outlined below:

5.4.1 The National Cancer Strategic Information, Registration, Surveillance and Research Technical Working Group

The composition of the National Cancer Strategic Information, Registration, Surveillance and Research TWG will include the; National Cancer Control Program, Department of M&E and health informatics, Academia and Research organizations, NCI-K, Implementing partners, Health facility representation, county government representation, COG secretariat, Development partners.

1. Capacity strengthening and technical support on cancer prevention and control information as needed especially to the counties and implementing partners.
2. Produce periodic situation Reports/ scorecard for cancer prevention and control.
3. Create and strengthen multi-sectoral linkages on cancer M/E and quality improvement.
4. Review and validate cancer information collection, analysis, reporting, including tools, indicators and targets.
5. Periodic performance tracking of the M&E framework taking corrective actions in partnership with the relevant actors.
6. Institutionalize Knowledge management and generation of actionable information products e.g., policy briefs, media briefs, advocacy briefs and opinion pieces.

5.4.2 The County cancer QIT

County cancer QIT teams will include County Director of Health (Chair), County Focal Person (County NCD/ RH coordinator), Clinician: County Nurse/medical officer/county clinical officer /CASCO, County Health Records and Information Officer, County Medical Laboratory Coordinator, Community strategy coordinator/ Health Promotion Officer, for counties with cancer treatment centers: oncologist, representation from implementing partners in the county. A similar structure can be replicated at Sub County.

The roles of the County Cancer QITs include:

1. Promote cancer data utilization at the county level by periodically reviewing the data and taking corrective action to address any gaps and improve cancer services provision in the county.
2. Provide leadership on oversight activities such as support supervision and mentorship on cancer M&E in the county.

3. Tracking performance and cancer data quality including DQAs and convening data review meetings.
4. Track/monitor systemic and health workforce capacity for cancer M&E and work with the ministry of health to fill any identified gaps.
5. Support cancer continuous quality improvement programs at sub county and facility level.
6. Coordinate cancer implementing partners within the county to ensure data quality and service improvement.
7. Prepare periodic information products for relevant stakeholders including the county assembly, county executive, NGAO, health workers and the general public.
8. Submit periodic reports to the National Cancer M&E Technical working group.
9. Ensure cancer M&E activities are incorporated in the annual work plan and annual budgets.
10. Mobilize for resources to support cancer M&E activities.
11. Ensure adherence to the principles of data privacy, protection, confidentiality as per the national data protection guidance.

The above roles will be replicated at the sub-county level.

At the Facility Level, a facility QIT team should comprise the following: the medical superintendent – leads the team, nursing in-charge, MCH in-charge, Clinical Officer in-charge or specializing in oncology, Lab in-charge, HRIO, CHEW.

The roles of the facility QITs include:

1. Hold periodic multidisciplinary meetings to review cancer data and address any emerging challenges.
2. Ensure cancer data collection, transmission and analysis is in line with the national cancer M&E guidance.
3. Implement cancer quality improvement programs.
4. Ensure cancer M&E activities are incorporated in the annual work plan and quarterly budgets.
5. Prepare and display performance charts of key cancer performance indicators at the facility.
6. Mobilize for resources to support cancer M&E activities.
7. Submit periodic reports to the sub-county and county QIT.
8. Ensure adherence to the principles of data privacy, protection and confidentiality as per the national data protection guidance.

5.5 Roles and Responsibilities of Stakeholders

Organization	M&E Roles and Responsibilities
Division of NCCP	• Develop standards, guidelines and tools for monitoring and evaluation of cancer prevention and control programmes in the country. • Standardization of cancer data collection methodologies, management, and reporting. • Overall management of implementation of cancer M&E framework. • Development of M&E implementation tools, including operational manuals and DQA tools. • Develop, disseminate and implement a national cancer quality improvement framework, which will utilize M/E information to continuously audit and improve cancer service delivery provision in the counties. • Provide technical support to counties in data collection, reporting and analysis including review and validation of data, methodologies and results. • Build capacity of national and county levels on cancer prevention and control information and M&E. • Mobilize resources to support implementation of M&E plans and framework. • Conduct periodic data quality audits, develop data quality improvement plans and monitor their implementation.
	• In collaboration with KNBS, partners and stakeholders provide technical expertise in conducting various evaluations and surveys including Stepwise survey, Kenya Demographic Health Survey (KDHS), Kenya Integrated Household Budget Survey (KIHBS), Multiple Indicator Cluster Surveys (MICS). • Ensure effective coordination of cancer prevention and control M&E and information at national and county levels. • Coordinate national level programme evaluations and statistical modelling on priority cancer control topics and facilitate dissemination of findings to counties and stakeholders. • Coordinate annual, mid-term and end-term review of the NCCS and support counties to develop county action plans/implementation plans of the NCCS. • Document and disseminate best practices, case studies, research findings and success stories for evidence-based programming. • Promote/support accountability and feedback mechanisms.
NCI-K	• Undertake resource mobilization and provision of these resources for the implementation of cancer MEAL framework at the Ministry. • Catalogue & disseminate cancer research and enhance adoption of research findings into cancer control policy and practice in the country. • Adopt and utilize the M&E information in improving the regulation and quality of cancer treatment facilities in the country. • Strengthen the hospital-based Cancer registries in all facilities providing cancer care and strengthen cancer registry legal framework towards declaring cancer as a disease for mandatory reporting by all facilities • Ensure linkage of the HBCR to the Population Based Cancer Registry at the Kenya Health Information System to inform national policy and planning • Utilize the findings from the registry to inform and conduct cancer research activities to inform Cancer M/E and required action.
Department of M/E and Health Informatics	• Integrate cancer M/E framework and indicators into the sector-wide M/E framework. • Offer guidance during periodic review of the cancer M/E framework through the Ministry of Health M/E guidelines. • Partner with the division of NCCP in implementing the M/E framework
Department of Primary Health Care	• Support integration of cancer M&E activities in the community health information system. • Support oversight activity of cancer M&E such as support supervision and mentorship for community health personnel. • Ensure quality data collection, transmission, analysis and use at community level.

Organization	M&E Roles and Responsibilities
Development partners	• Provide technical and financial support to operationalize and sustain the cancer prevention and control M&E system. • Conduct/support advocacy and resource mobilization to support implementation of M&E plans and framework. • Provide technical support in development, dissemination and implementation of cancer control M&E framework, Plans and guidelines. • Conduction of IMPACT assessments to evaluate cancer control plans/strategies. • In collaboration with NCCP and KNBS participate and provide technical expertise in conducting various research, evaluations and surveys
Patients' associations	• Advocate for utilization of the M&E framework for improvement of quality of cancer service provision in the country. • Advocate for cancer data privacy and confidentiality at all levels of M&E continuum.
Implementing partners	• Support the implementation of M&E framework through timely submission of cancer data to the health information system. • Work with both national and county M/E teams to build capacity for cancer M/E within their workforce. • Ensure utilization of the national M/E tools and processes in cancer data collection, processing and utilization in planning and decision-making. • Adopt and implement continuous data quality improvements recommendations arising from DQA processes at national or county levels.
Civil society	• Advocacy to increase public and leadership awareness on cancer M/E • Advocacy for increased resources for cancer M/E activities at national and county level • Lead social accountability for cancer M&E
County Governments	• Overall coordination of the implementation of the Cancer M&E framework at the county level. • Ensure adherence to cancer M&E standards and guidelines. • Monitor implementation of county cancer action plans and develop annual performance reports. • Advocate for inclusion of cancer control indicators in county level plans such as the CIDP and CHSSP • Conduct mid-term and end-term review of the county cancer action plans. • Domestication and dissemination of policies, guidelines, and reports. • Resource mobilization. • Provide technical and financial support for M&E activities. • Maintenance of the implementing partners' database at the county level. • Dissemination of all reports and M&E products developed at both the county and national level. • Conduct regular data reviews and data quality audit activities in the county. • Provide oversight on data collection and reporting. • Promote data demand and information use. • Acquisition and distribution of HMIS tools to the sub counties. • Coordination of training, mentorship and OJTs. • Coordination of research and survey activities. • Development of quarterly and annual County Health Bulletin. • Provide technical, material and financial support for M&E to all sub-counties. • Carry out County M&E needs assessment and build capacity where applicable. • Conduct Supportive supervision. • Implementation of County feedback and accountability mechanism e.g., through sub-county scorecards. • Document and disseminate best practices, case studies, research findings and success stories for program adjustment and improvement

Organization	M&E Roles and Responsibilities
Academia and Research Organizations	• Collaboration with public sector on cancer M&E and operational and implementation research • Work with the Ministry of Health to identify cancer research priorities for the country and drafting of the cancer research agenda. • Implementation of research at all levels: basic, medical, epidemiological, clinical trials, operation research
Health facilities	• Maintain and update the Health Information System, including records, filing system(s) and registry for primary data collection tools (such as registers, cards, file folders), and summary forms. • Conduct monthly facility data review and linkage to actions for improvement. • Safeguard data and information system from any risks e.g., Access by unauthorized persons etc. • Prepare an analysis of the data for discussion during staff and board meetings for decision-making. • Implementation of policies and guidelines. • Document and share best practices, case studies, research findings and success stories
Media	• Work with MOH to monitor advocacy, communication and social mobilization in terms of reach and depth indicators. • Support the ministry by conducting surveys in the population on priority cancer prevention and control topics.
Line Ministries/ Institution and Agencies including KNBS, KEMRI	• Mainstream information for cancer prevention and control in their M&E systems. • Monitor and report on cancer indicators and activities that fall in their dockets. • KNBS and KEMRI provide technical support and expertise for national level cancer surveys. • Participate in mid-term and end-term review of the NCCS. • Provide adequate financial resources to support cancer M&E activities.

5.6 Data Quality Assurance

A robust data quality assurance (DQA) process will ensure cancer prevention and control data meets the minimum standards in terms of accuracy, precision, reliability, timeliness, relevance and completeness. The national team will conduct annual DQAs in selected counties, while counties and sub-counties will conduct semi-annual DQAs at data generation points (service provision points including cancer screening and treatment) within their jurisdiction. Standard DQA tools will be developed for adoption and utilization at the various levels. This approach will safeguard the minimum acceptable standards and ensure data produced is reliable and valid for decision making. At the facility level, data reviews will be conducted every quarter, and the findings utilized to make local corrective actions promptly.

Data quality is determined by the level to which it meets the specified standards; data quality assessment is useful in identifying any data errors, assess whether the data is fit to serve its intended purpose and guide any corrective measures. Data quality assurance is the process of data profiling to discover and correct data anomalies to improve the data quality, for example, cleaning, removing duplicates and removing outliers.

5.7 Data Quality Assurance Mechanisms

Four approaches will be adopted for DQA for cancer:

1. Data Quality Assessments: including dissemination of findings and conducting corrective interventions.

2. Strengthening the health system to manage and handle data: continuously improving the health information system, using innovative approaches in data capture etc.
3. Supportive supervision: to improve the capacity of the M/E workforce to continuously improve on data quality standards (clinical teams, HRIOs and facility managers).
4. Development and utilization of tools and guidelines and checklists.

The DQA process will aim to document the status of selected determinants of data quality and the results on the dimensions of data quality by:

- Completing the facility data quality assessment tool (at facility level) and the county/sub-county assessment tools.
- Documenting observations, additional submissions (voluntary or probed) from staff responsible for ensuring quality of data at facility, sub-county and county levels.
- Making onsite presentations of summary findings as a way of providing immediate feedback.
- Preparing an Audit Report that includes and documents findings as gathered by the audit team, conclusions arising from those findings and recommendations following the interpretations.
- Narratives in the report will be augmented by the summary statistics collected through the assessment forms, covering the following core areas:

    1. Determinants of data quality focusing on availability of trained HMIS staff; availability of materials, space and equipment; and adequacy of the feedback mechanism.
    2. Availability, Completeness and Timeliness of Reports.
    3. Accuracy of reported data through calculated ratios (reported to recounted numbers).

- Dissemination of findings and recommendations to the national, county, sub-county and facilities for quality improvement follow-ups.

This report should inform continuous quality improvement plans at all levels using the PDCA framework.

Health records and information officers at the health facility, sub-county, and county are responsible for data collection and management at these levels. These officers will receive capacity building and mentorship on data quality assurance processes, and will be integrated into the DQA processes, as well as promoting data use at all the levels. These officers will also be supported and required to conduct validation checks using laid-down procedures, at every stage of data entry and processing, including checking for duplicates, outliers, missing values. etc.

The above DQA activities will support a robust CQI process, guided by a comprehensive cancer control quality improvement framework (includes clinical audits and mortality reviews).

5.8 Updating of the Framework

This framework will call for modification whenever there are programmatic changes in the National Strategic Plan, Policies and Guidelines. This will be determined during the Mid-Term Review (MTR) and End Term Review (ETR).


TWO WAY POWER
45%
70%
85%
100%
40%
30%
50%
40%

CHAPTER 6

Costing and Funding of the Meal Framework

6.1 Funding of the cancer MEAL framework

Various funding approaches will be used to support cancer MEAL activities:

- Adequate financing of various cancer MEAL interventions should be part of the overall cancer control financial allocation in the country, at both national and county levels.
- Integrated MEAL interventions on existing financing mechanisms for other disease control and public health programs, including HIV, NCDs, UHC, TB.
- Integrate cancer MEAL into all cancer programming activities, including trainings, outreaches, technical support visits.
- Integrating cancer MEAL into existing data platforms including national health surveys, health information systems, and electronic patient management systems.
- External development assistance or other stakeholders should also be leveraged to support cancer MEAL interventions, within their specific areas of support.
- Ensure that all projects' budgets allocate 5-10% of the total financial resources to specified MEAL activities. To ensure implementation of this requirement, a clause on this condition will be included in any agreement that the division signs with its partners.

The funds generated will be used for production of data collection tools, MEAL trainings, upgrade/maintenance of computer hardware and related networks, development/maintenance costs of software for cancer databases, costs related to data collection, cleaning and transmission, data analysis and meta-analysis, information dissemination, accountability and learning forums, communication and supportive supervision to give on-the-job technical assistance.

The NCCP will also take part in funds mobilization while taking advantage of the existing periodic surveys and systems e.g., Multiple Indicator Cluster Surveys (MICS), Kenya Integrated Household Budget Survey (KHIBS), Kenya Demographic and Health Survey (KDHS), Health facility Assessment survey and others to include specific programmes indicators as defined through the MEAL framework.

6.2 Costing of the cancer MEAL framework

The costing of the implementation of the MEAL framework is captured within the costing of the National Cancer Control Strategic Plan 2023-2027, and the subsequent strategic plans.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Annexes

Annex 1: Dimensions of data quality

Accuracy	The extent to which the data reflect the actual/correct information. It defines validity of the data and is achieved by minimizing errors from recording and transcription.
Reliability	The data generated by a program's information system are based on protocols and procedures that do not change according to who is using them and when or how often they are used. The data are reliable because they are measured and collected consistently.
Precision	This means that the data have sufficient detail. For example, an indicator requires the number of individuals who received HIV counseling & testing and received their test results, by sex of the individual. In this case, an information system lacks precision if it is not designed to record the sex of the individual who received counseling and testing.
Completeness	An information system from which the results are derived is appropriately inclusive: it represents the complete list of records (eligible persons, facilities, units) and the fields in each record are provided appropriately.
Timeliness	Timeliness refers primarily to how current or up to date the data are at the time of release. Timeliness is affected by: (a)the rate at which the program's information system is updated; (b) the rate of change of actual program activities; and (c) when the information is used or required.
Integrity	Data have integrity when the system used to generate them is protected from deliberate bias or manipulation for political or personal reasons.
Confidentiality	Where clients are assured that their data will be maintained according to national and/or international standards for data. This means that personal data are not disclosed inappropriately, and that data in hard copy and electronic form are treated with appropriate levels of security (e.g., kept in locked cabinets and/or in password protected files).

Annex 2: Selected Cancer indicators thresholds

Indicator	Set standard	Action
Screening targets attainment	≥85%	Good
	75-84%	Caution and continue to monitor
	<75%	Immediate action needed
Screen test positivity		
VIA	5-10%	Good
	3-4%; 10-19%	Caution and continue to monitor
	<3% or ≥20%	Immediate action needed
HPV	5-25%	Good
Cytology	1-5% HSIL	Good
Treatment coverage for eligible candidates	≥90%	Good
	71-89%	Caution and continue to monitor
	<70%	Immediate action needed

(Adapted from the Improving data for decision-making: a toolkit for cervical cancer prevention and control programmes. Geneva: World Health Organization; 2018. Licence: CC BY-NC-SA 3.0 IGO)

Annex 3: Terms of reference (ToRs) for the QIT

Objective of the county QIT

The overall objective for establishing the QITs is to strengthen synergy and teamwork at county level in the provision of support for the continuous monitoring of the program to ensure quality assurance and its improvement as well as the periodic evaluation of the county progress in achieving 90:70:90 cervical cancer elimination targets.

Roles and functions

County QIT

1. Use aggregate data from facilities to guide overall cervical cancer prevention programming.
2. Use data to inform budget allocations, especially for awareness creation, screening, human resources and commodities.
3. Identify lessons learned and makes strategic recommendations and decisions.
4. Organize regular performance review meetings preferably on a quarterly basis.
5. Ensure that feedback on the data flows back to sub-county and facility QITs/supervisors.
6. Work with county staff to develop county and facility-level targets related to Screening Rate and Coverage based on trends and programme direction.
7. Monitor and advocate for appropriate deployment of trained screen & treat staff for retention and practice.
8. Track commodity availability and device functionality in the county.
9. Monitor and coordinate the facility QITs, conduct regular support supervision and offer technical support to facilities to identify gaps and institute corrective actions ensure achievement of set county/ sub-county targets.
10. Ensure provision of monthly reports, showing the cervical cancer screening and treatment performance matrix, and corrective actions undertaken.

Facility QIT

1. As the primary data collectors, complete the source document (client forms) during the client visits. This is vital in identifying trends and implementing corrective actions.
2. Ensure proper data entry and transcription from the completed client form to the daily activity register and the calculation of indicators on the monthly summary form.
3. Track clients who need referral and treatment to ensure complete loop in linkage to care.
4. Track commodity availability and device functionality in the facility.
5. Discuss emerging challenges related to the programme highlighted by the routine service delivery statistics and identify strategies to address these towards achieving set facility targets.

Frequency of meetings

The team should meet monthly to review and use data for decision-making at the facility level and at the county level.

Core indicators (cervical cancer)

Screening performance

a. Number of women screened [by screening visit type and age group or range] in each time period.
b. Percentage of screening target reached in the last year, quarter and month.
c. Percentage of screened women aged 25-49 years with a positive result.

d. Percentage of screen-positive women who have received treatment in each time period.
e. Percentage of women enrolled in HIV Care and Treatment who were screened for cervical cancer.

Program and service delivery

a) Proportion of health facilities in the county providing cancer screening Services.
b) Proportion of health facilities in the county providing treatment services for precancerous lesions
    i. Thermal ablation
    ii. Cryotherapy
    iii. Loop Electrosurgical Excision Procedure (LEEP)
    iv. Colposcopy

c) Availability of cytology and histopathology services (cancer pathology services) at the County Referral Hospital.
d) Proportion of health service providers trained in screening and treatment services that are providing services.
e) Number of service providers to be trained on cervical cancer screen and treatment.
f) Number of community campaigns (including mass screening campaigns/ periodic outreaches carried out.

Annex 4: Indicator Compendium

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
1 (Prevention and early detection)	**Tobacco control**	Outcome								
		Proportion of persons 18 years and above using tobacco	Number of persons 18 years and above using tobacco	Total number of persons 18 years and above sampled	13.3%	6.5%	STEPS survey	Division of tobacco control	Every five years	Division reports/ HFA
		Proportion of youth (13-15 years) using tobacco	Number of youth (13-15 years) using tobacco	Total number of youths (13-15 years) sampled	9.9%	4.8%	GYTS	Division of tobacco control	Quarterly	Division reports
		Proportion of adults exposed to SHS at work	Number of adults exposed to SHS at workplace	Total number sampled	24.0%	12.0%	Survey- KDHS, GATS, STEPS	Division of tobacco control	Quarterly	Division reports
		Proportion of people exposed to SHS at home	Number of people exposed to SHS at home	Total number sampled	21.0%	10.0%	Survey- GATS, STEPS	Division of tobacco control	Every five years	Division of Tobacco Control, KNBS
		Proportion of tobacco users receiving cessation services	Number of tobacco users receiving tobacco cessation services	Total number sampled	34.0%	68.0%	Survey- GATS, STEPS	Division of tobacco control	Every five years	Division of Tobacco Control, KNBS
		Proportion of tobacco tax to retail price	Amount of tobacco tax	Average retail price of tobacco products	52.0%	70.0%	Annual Finance Act	Division of tobacco control	Annual	Annual Finance Act
	Physical activity	Outcome								
		Proportion of the population engaging in adequate physical activity	Number of adults engaging in adequate physical activity	Total number sampled	6.50%	30.0%	Survey report	Division of NCD control	Every five years	STEPS survey
	Obesity and overweight	Outcome								
		Proportion of adults that is overweight or obese	Number of adults that is overweight or obese	Total number sampled	27.0%	20.0%	Survey report	Division of NCD control	Every five years	STEPS survey
	Healthy diets	Outcome								
		Proportion of adults adopting healthy diets	No of adults who have at least 5 servings of fruit and/ or vegetables on average per day	Total adults sampled	5%	30%	Survey report	Division of NCD control	Every five years	STEPS Survey

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
	Harmful use of alcohol	Outcome								
		Proportion of adults consuming alcohol	No. of adults who consume alcohol	Total adults sampled	19%	10%	Survey report	Division of NCD control	Every five years	STEPS Survey
	Environmental/ occupational exposures	Input								
		Proportion of known environmental and occupational carcinogens with established surveillance programs	Number of environmental and occupational carcinogens with established surveillance programs	Number of specified environmental and occupational carcinogens as per IARC monographs	~	30%	Surveillance reports	DOSH, NCCP, Division of Environmental Health, NEMA, County governments	Annual	Surveillance reports
	HPV vaccination	Outcome								
		Increased proportion of girls fully vaccinated against HPV by age 15 years	No. of girls fully vaccinated by age 15 years	Total population of girls 15 years of age	58%	90%	Reports	NVIP	Every 5 years	Survey reports
	HBV vaccination	Outcome								
		Proportion of surviving infants aged 1 year vaccinated against HBV	No. of surviving infants vaccinated against HBV by the age of 1 year	Total number of surviving infants aged 1 year	80%	95%	KHIS	NVIP	Annual	KHIS
	Cervical cancer screening	Input								
		Proportion of health facilities using the cancer screening guidelines	Number of health facilities using the cancer screening guidelines	Total number of health facilities	Not applicable	80%	Health Facility Assessment report	M & E Division MOH/NCCP	Every five years	HFA , Assessment Report
		Proportion of trained TOTs active in the cervical cancer screening and treatment program	Number of trained TOTs active in the cervical cancer screening and treatment program	Total number of TOTs trained	53%	80%	Training audits	NCCP	Annually	NCCP archives
		Proportion of health facilities with cervical cancer screening commodities	Number of facilities with screening commodities	Total number of facilities	25%	75%	Health facility assessments	M/E division/ NCCP	Every five years	HFA , Assessment Report

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of health facilities with cervical cancer precancerous treatment equipment	Number of facilities with treatment equipment	Total number of facilities	25%	75%	Health facility assessments reports	M/E division/ NCCP	Every five years	HFA , Assessment Report
		Proportion of health facilities with key cervical cancer screening and treatment SOPs and Job aids	Number of facilities with SOPs and job aids	Total number of facilities	Not Available	80%	Facility assessment reports	M/E division/ NCCP	Every five years	HFA , Assessment Report
		Process								
		Number of counties where HCW trainings on cervical cancer screening and treatment have been conducted	Number of counties	Not applicable	47	47	Training reports	NCCP	Bi-ennually	NCCP archives
		Number of counties where CHV trainings on cervical cancer early detection have been conducted	Number of trainings	Not applicable	10	47	Training reports	NCCP	Bi-ennually	NCCP archives
		Number of mentorship activities to counties	Number of visits	Not applicable	25	47	Mentorship reports	NCCP	Bi-ennually	NCCP archives
		Number of CQI technical support visits to counties	Number of visits	Not applicable	10	47	Visit reports	NCCP	Bi-ennually	NCCP archives
		Output								
		Proportion of health facilities offering cervical cancer screening	No. of health facilities offering cervical cancer screening	Total number of health facilities	22%	70%	Survey/ assessment report	NCCP/Division of M&E	Every five years	Survey/HFA
		Proportion of health facilities reporting on cervical cancer screening	Proportion of health facilities reporting on cervical cancer screening	Total number of health facilities	44%	95%	KHIS-MOH745	NCCP/Division of Health Informatics	Monthly	KHIS
		Proportion of eligible (level 3-6) health facilities offering HPV molecular testing (either at facility lab or through sample referral)	No. of eligible (level 3-6) health facilities offering HPV molecular testing	Total number of eligible health facilities (level 3-6)	2%	50%	HFA reports	NCCP/Division of M&E	Every five years	Survey/HFA

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of primary healthcare workers trained on cervical cancer screening and treatment	Number of HCWs trained on cervical cancer screen & treatment	Total number of primary healthcare workers (nurses, clinical officers and medical officers)	12%	50%	Training report	NCCP/Counties/ Parters	Bi-ennually	Division reports
		The proportion of persons invited for cervical cancer screening at least once in a given time frame (i.e. invitation coverage)	Total number invited	Total number of women 25-49 years eligible for screening that year	10%	30%	Invitation records	NCCP	Annually	NCCP archives
		Outcome								
		Proportion of women age 25- 49 years screened for cervical cancer	No. of women age 25- 49 years screened fo cervical cancer	Total no of women age 25-49 years	31%	90%	Survey report	Health facilities/ Counties	Every five years	STEPS/KDHS/ Other survey
		Proportion of women screened using VIA/ VILI with a positive screening result	Number of women with a positive VIA/ VILI test	Number of women screened using VIA/VILI	4%	5-10%	MOH 745	Health facilities/ Counties	Annually	KHIS
		Proportion of women screened using HPV testing with a Positive screening result	Number of women with a positive HPV test	Number of women screened using HPV testing	14%	5-25%	MOH 745	Health facilities/ Counties	Annually	KHIS
		Proportion of women screened using pap smear with positive results	Number of women with a positive pap smear result	No. of women age 25-49 years with positive cytology results	2%	1-5%	KHIS MOH 745/ Screening report	Health facilities/ Counties	Annually	Division report/ EMR
		Proportion of women age 25-49 years with suspicious cancer lesions	No. of women age 25-49 years with suspicious cancer lesions	Total no. of women age 25-49 years screened	0.8%	0.5%	KHIS MOH 745/ Screening report	Health facility	Quarterly	Division report/ EMR
		Proportion of women 25-49 years screened for cervical cancer with inconclusive/ unsatisfactory results	No. of women age 25-49 years with inconclusive results	Total number of women 25-49 years screened for cervical cancer	Not Available	1%	KHIS MOH 745/ Screening report	Health facility	Annually	KHIS

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of women 25-49 years screened for cervical cancer with results unknown	Number of women 25-49 years screened for cervical cancer with results unknown	Total number of women 25-49 years screened for cervical cancer	Not Available	1%	KHIS MOH 745/ Screening report	Health facility	Annually	KHIS
		Proportion of women with abnormal cervical screening result , whose time period from getting results to final diagnosis is less than 60 days	No. of abnormal cervical screening result with time from screening to final diagnosis less than 60 days	Total number of abnormal cervical screening result	Not Available	90%	Screening and Laboratory registers	NCCP	Annually	Division report/ EMR
		Proportion of women with cervical precancerous lesions treated using thermal ablation, cryotherapy or LEEP	No. of eligible women treated using any of the three modalities	Total no. of women eligible for treatment	26%	90%	MoH 745	Facilities	Annually	KHIS
		Proportion of HIV positive women 15 years and above screened for cervical cancer	No. of HIV positive women 15 years and above screened for cervical cancer	No. of HIV positive women 15 years and above	30%	70%	CCC reports/KHIS MOH 745	NCCP/NASCOP	Annually	Division report/ EMR
		Proportion of HIV positive women with positive screening test	No. of HIV positive women with positive screening test	Total no of HIV positive women screened for cervical cancer	Not applicable	Not Applicable	CCC reports/KHIS MOH 745	NCCP/NASCOP	Annually	Division report/ EMR
	Breast cancer screening	Input								
		Number of HCW of various cadres trained in clinical breast examination	Humber of HCWs trained	Not applicable	7,000	25,000	Health facility assessments	NCCP	Every five years	NCCP archives
		Number of radiographers and radiologists trained in breast imaging	Number trained	Not applicable	50	500	Health facility assessments	NCCP	Every five years	NCCP archives
		Proportion of health care Facilities, per level of care, performing clinical breast exam (CBE)	No. of health facilities conducting CBE	Total number of health facilities	10%	50%	Health facility assessments	M/E division	Every five years	NCCP archives

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of health facilities reporting on breast cancer screening	Number of health facilities reporting on breast cancer screening	Total number of health facilities	44%	95%	KHIS-MOH745	NCCP	Annually	KHIS
		Number of counties where HCW trainings on breast cancer screening and treatment have been conducted	Number of counties	Not applicable	25	47	Training reports	NCCP	Biennually	NCCP archives
		Number of counties where integrated cancer CHV trainings have been conducted	Number of trainings	Not applicable	10	47	Training reports	NCCP	Biennually	NCCP archives
		Output								
		Proportion of facilities offering breast cancer screening	No. of health facilities offering breast cancer screening	Total number of health facilities	20%	50%	Assessment/ Survey report	NCCP/Division of M&E/Counties/ NCI-K	Every five years	Division reports/ Survey/HFA
		Proportion of level 4-6 performing breast ultrasound	No. of level 4-6 health facilities conducting breast cancer U/S	Total number of level 4-6 health facilities	Not Available	80%	Assessment/ Survey report	NCCP/Division of M&E/Counties	Every two years	Division reports/ Survey/HFA
		Proportion of level 5-6, performing mammography	No. of health facilities conducting mammography	Total number of level 5-6 health facilities	Not Available	80%	Assessment/ Survey report	NCCP/Division of M&E/Counties	Every two years	Division reports/ Survey/HFA
		Proportion of PHCWs trained on breast cancer screening	Number of PHCWs trained on breast cancer screening	Total number of PHCWs	Not Available	50%	Training reports	NCCP/Counties	Every two years	Division reports/ Survey
		The proportion women 40-74 years invited for breast cancer screening	Number of women 40-74 invited for breast cancer screening	Number of owmen 40-74 years	0%	50%	Screening registry reports	NCCP	annually	Screening registry
		Outcome								
		Proportion of women 25-74 years undergoing CBE	No. of women 25-74 years screened using CBE	Total no. of eligible women (25-74 years)	1%	30%	MOH 745	NCCP	Annually	KHIS
		Proportion of women aged 40-74 years screened using mammogram	No. of women aged 40-74 years screened using mammogram	Total no. of women ages 40-74 years	1%	30%	Survey report	NCCP/Health facility	Every five years	STEPS/KDHS/ Other survey

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of women with screen positive results per 1000 women screened using mammography	No. of women with positive breast cancer screening results on mammography	Total no. of women screened uisng mammography	30	50	Screening registry, KHIS	NCCP	Quarterly	KHIS
		Proportion of positive breast screening result with time from receipt of screening results to final diagnosis less than 60 days	No. of positive breast cancer screening result with time from receipt of results to final diagnosis less than 60 days	Total number of women with positive breast cancer screening results	Not available	90	Screening and Laboratory registers	NCCP	Quarterly	Division report/ EMR
		Proportion of Ultrasound-guided Biopsies (USG) Performed out of those with imaging findings as BIRADs 4 or 5	No of Ultrasound-guided Biopsies (USG) Performed out of those with imaging findings as BIRADs 4 or 5	Total number with imaging findings as BIRADs 4 or 5	Not Available	70%	MoH 746	NCCP	Annually	KHIS
		Proportion of breast cancer cases diagnosed at stage 3 or 4	Breast cancer cases stage 3 or 4	Total number of breast cancer cases	69%	40%	Registry report	NCCP	Annually	PBCR
		Proportion of women diagnosed with breast cancer who initiated treatment within 60 days after diagnosis	Number of confirmed breast cancer cases initiating treatment within 60 days	Total number of breast cancer cases	Not Available	90%	MoH 746	NCCP	Annually	KHIS
		Input								
		Proportion of level 3-6 facilities offering colorectal cancer screening	No. of level 3-6 health facilities offering colorectal screening	Total number of level 3-6 health facilities	2%	50%	HFA report	M/E division	Monthly	KHIS
		Proportion of level 3-6 health facilities reporting on colorectal cancer screening	Number of level 4-6 health facilities reporting on colorectal cancer screening	Total number of level 3-6 health facilities	43.60%	95%	KHIS-MOH745	Health facility	Monthly	KHIS
		Proportion of level 3-6 health facilities offering FOBT test	No of level 3-6 health facilities offering FOBT test	Total number of level 4-6 health facilities	Not Available	30%	Assessment/ Survey report	NCCP/NCI/ Division of M&E	Every five years	Survey report/ assessment

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of people with a positive FOBT test referred for colonoscopy	Total number of people with a positive FOBT referred for colonoscopy	Total number with positive FOBT	Not Available	90%	KHIS-MOH745/ EMR	Health facility	Monthly	KHIS/EMR
		Number of level 5 and 6 facilities with coloscopy services	Number of level 5 and 6 facilities with coloscopy services	Not applicable	10	60	KHFA	M/E division		
		Output								
		The proportion of persons age 45-75 years invited for colorectal cancer screening	The number of persons age 45-75 years invited for colorectal cancer screening	The number of persons age 45-75 years.	0%	20%	Invitation records	NCCP	Annually	Invitation platform
		FOBT positivity rate	Total number of people age 45-75 who have a positive/ abnormal result with FOBT	The number of persons age 45-75 years who undergo FOBT	Not Available	Not Applicable	MOH 745/EMR	NCCP	Monthly	KHIS/EMR
		Proportion of people age 45-75 years screened for colorectal cancer with a positive screening result	No. of people age 45-75 years screened for colorectal cancer with a positive screening result	Total number of people age 45-75 years screened for colorectal cancer	Not Available	Not Applicable	MOH 745	Health facility	Monthly	KHIS
		Proportion of persons age 45-75 years screened and diagnosed with colorectal cancers	No. of people age 45-75 years screened and diagnosed with colorectal cancers	Total number 45-75 years screned	Not Available	Not Applicable	MOH 745/EMR	NCCP/Division of Health Informatics	Monthly	KHIS/EMR
		Proportion of screen-detected cancers that were staged as I-II using the international TNM classification	Total number of screen-detected cancers that were staged as I-II using the international TNM classification	Total number of colorectal cancer cases detected through the screening program	Not Available	60%	KHIS-MOHXXX/ EMR	NCCP/Division of Health Informatics/ NPHLS	Monthly	KHIS/EMR
		Adenoma detection rate	Number of adenoma cases detected at colonoscopy	Total number of colonoscopies done	Not Available	25%	MoH745, EMR	NCCP	Annually	KHIS
		Outcome								
		Increase colorectal cancer screening among people age 45-75 years	No. of people age 45-75 years screened for colorectal cancer	Total population age 45-75 years	<1%	20%	MOH 745/EMR	STEPS survey report	Every five years	STEPS/KDHS/ Other survey

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
2 (Cancer diagnosis)	**Diagnosis (general)**	Inputs								
		Porportion of level 4, 5 and 6 facilities adequately equipped for cancer diagnosis	Number of Labs with adequate diagnostic facilities	Total number of level 4 - 6 health facilities	55%	80%	health facility assessments	NCCP	Every two years	HFA , Assessment Report
		Number of counties where dissemination of specimen handling guidelines have been conducted	Number of counties where dissemination has been conducted	Not applicable	27 counties	47 counties	Diseemination reports	NCCP	Annual	NCCP
		Number of counties where trainings on different cancer imaging modalities have been conducted	Number of counties where disshas been conducted	Not applicable	0	47 counties	Training reports	NCCP	Annual	NCCP
		Output								
		Proportion of cancer tissue specimens with turn around time of less than 21 days	Number of cancer tissue specimens with turn around time of less than 21 days	Total number of cancer tissue specimens received in the specific pathology lab	23%	70%	Lab registers	County /National	Monthly	MOH 745/746
	Strengthening cancer medical imaging services.	Input								
		Number of cancer imaging and safety guidelines for developed	Number of guidelines developed	Not applicable	0	3	Number of guidelines	NCCP	Annual	NCCP
		Number of counties where cancer imaging and safety guidelines have been disseminated	Number of counties where dissemination has been conducted	Not applicable	0	47 counties	Training Report	NCCP	Annual	Training Report
		Proportion of level 4 - 6 health facilities offering cancer imaging services	Number of level 4-6 health facilities offering cancer imaging services	Total number of level 4 - 6 health facilities	Not Available	90%	Assessment report	NCCP/ M&E Division	Every two years	HFA , Assessment Report
		Proportion of level 4 - 6 facilities with cancer imaging guidelines	Number of level 4 - 6 facilities with cancer imaging guidelines	Total number of level 4 - 6 facilities with cancer imaging services	0	100%	Assessment report	NCCP	Annual	Division Report

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
	Strengthening cancer pathology diagnostic and Laboratory medicine services	Input								
		Proportion of level 4 - 6 laboratories offering pathology cancer diagnostic services	Number of 4 - 6 laboratories offering pathology cancer diagnostic services	Total number of level 4 - 6 health facilities	55% (level 5 and 6)	100% (level 6); 75% (level 5); 50% (level 4)	Assessment report	NCCP/NCRL/ Counties	Annual	Division Reports
		Number of diagnostic pathology algorithms developed for cancer including childhood cancer	Number of algorithms developed	Not applicable	0	6	Published algorithms	NCCP/NCRL	Biannual	NCCP/NCRL
		Proportion of pathologists and lab technologists trained on cancer diagnostic algorithms	Number of pathologists and lab technologists trained	Number of pathologists and lab technologists involved in cancer diagnosis	0	50%	Training Report	NCCP/NCRL	Annual	NCCP/NCRL
		Proportion of level 4 - 6 laboratories offering cancer diagnostic pathology services	Number of level 4 - 6 laboratories offering cancer diagnostic pathology services	Total number of level 4 - 6 health facilities	55% (level 5 and 6)	100% (level 5 and 6); 75% (level 4);	Assessment report	NCCP/NCRL/ Counties	Annual	Division Reports
		Output								
		Proportion of patients with biopsy-proven cancer prior to initiation of treatment	Number with biopsy	Total number of patients	Not available	90%	Diagnosis/ cancer center summary reports	NCRL; Cancer centers	Annual	KHIS
		Average time (in days) from a patient's diagnosis (date of the pathology report) to first treatment	Number of days from diagnosis to starting treatment	N/A	Not available	60 days	Registry reports	Cancer centers; cancer registry	Annual	EMR; cancer registry
		Period of equipment-specific downtime for cancer pathology in the previous 12 months (days)	Number of downtime days per specific cancer pathology equipment	Not applicable	90	30	Assessment report	NCCP/NCRL/ Counties	Annual	Division Annual Report
		Proportion of level 4-6 diagnostic pathology laboratories assessed for EQA	Number of level 4-6 diagnostic pathology laboratories assessed for EQA	Total number of level 4-6 laboratories	Not available	100	Assessment report	NCCP/NORL	Annual	NORL

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of tissue specimen handled suboptimally	Number of specimens handled suboptimally	Total number of specimens received	Not available	<10%	Laboratory registers	NCCP/NORL	Annual	NORL
		Proportion of cancer tissue specimens with turn around time of less than 21 days for histology	Number of cancer tissue specimens with turn around time of less than 21 days for histology	Total number of cancer tissue specimens received in the specific pathology lab	Not available	100%	Laboratory registers	NCCP/NORL	Monthly	NCRL
		Proportion of cancer tissue specimens with turn around time of less than 7 days for cytology	Number of cancer tissue specimens with turn around time of less than 7 days for cytology	Total number of cancer tissue specimens received in the specific pathology lab	Not available	100%	Laboratory registers	NCCP/NCRL	Monthly	NCRL
		Proportion of specimens with discrepancies after external review	Total number of specimens discrepancies after external review	Total number of specimens reviewed	Not available	<10%	Second opinion reports	NCCP/NCRL	Monthly	NCRL
3 (Treatment, palliative care and survivorship)	**Treatment**	Input								
		Proportion of designated cancer centers level 5&6 utilizing cancer treatment protocols	Number of designated cancer centers level 5&6 utilizing the cancer treatment protocols	Total number of level 5&6 facilities	75%	100%	Facility assessments	County/NCCP	Monthly	Dissemination reports
		Number of public regional comprehensive cancer treatment centres established by 2030	Number of centers	Not applicable	3	8	Commissioning reports	County /NCCP/ Mand E/ Health Infrastructure	Annually	Program reports
		Proportion of public cancer treatment centers accredited by NCI-K	Number of public cancer treatment centers accredited	Total number of public cancer treatment centers in the country	60%	100%	NCI-K Reports	NCI-K	Annually	Stakeholders meeting minutes
		Proportion of public cancer centers actively participating in MDTs discussions (physical teams/telemedicine)	Number of cancer centers with active MDTs	Total number of cancer centers	40%	100%	MDT reports	Cancer centers	Quarterly	NCCP Reports

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of cancer centres with stockouts of essential chemotherapy drugs in a given quarter	Number of cancer centres with stockouts	Total number of cancer centers	100%	<20%	National Oncology Dashboard	NCCP	Monthly	Oncology dashboard
		Proportion of cancer medicines in the Kenya essential medicines list available at the cancer centers	Number of essential cancer medicines available at cancer centers	Total number of cancer medicines listed in the Kenya essential medicines list	20%	80%	Supervision reports	NCCP	Monthly	Oncology dashboard
		Proportion of cancers diagnosed in early stages	Number of cancers diagnosed in stage 1 and 2	Total number of cancers diagnosed	30%	60%	MoH 746	NCCP	Monthly	MoH 746
		Output								
		Proportion of patients with complete TNM (tumor, nodes, metastases) staging	Number of patients with TNM staging	Total number of patients	Not available	80%	Registry reports	Cancer registry; cancer centers	Annual	KHIS; cancer registry
		Proportion of patients who complete the full recommended chemotherapy/ systemic anticancer therapy course of treatment	Number completing chemotherapy	Total number started on chemotherapy	Not available	90%	Treatment reports	Cancer centers	Annual	KHIS; EMR
		Multi-disciplinary team/tumor board discussions held at least monthly	Number of MDTs held per center	N/A	Not available	2	MDT reports	Cancer centers	Monthly	Reports
		Utilization of nationally- or internationally approved clinical guidelines	Number utilizing the guidelines	Number of cancer centers	Not available	100%	Assessments/ clinical audits	Cancer centers; NCI-K, NCCP	Annual	Assessment reports
		Proportion of patients receiving the appropriate surgical procedure for their stage	Number receiving appropriate surgical interventions	Total number eligible for surgery	Not available	90%	Assessments/ clinical audits	Cancer centers	Annual	Assessment reports

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of patients received the recommended multi-modal treatment for their stage	Number receiving correct treatment	Total number diagnosed	Not available	90%	Assessments/ clinical audits	Cancer centers	Annual	Assessment reports
		Proportion of cancer patients completing treatment	Number of cancer patients completing treatment	Total number of cancer patients in a given period	46% (Lancet Commission report)	100%	Cancer center assessment reports	National -NCCP, NCI-K	Annually	Population based cancer registry , Lancet Commission Report
		Percentage increase in the specialized oncology health workforce	Number of additional specialized health workforce trained	Number of exisiting oncology workforce	2%	10%	Regulatory Bod-ies Reports(KMP-DC,COC,NCK)	National and County	Annualy	Staff training Inventory
		Proportion of health workers who complete the early diagnosis of cancer for primary health workers course	Number of health workers who have completed the early diagnosis of cancer for primary health workers course	Number of health workers whoenrolled for the early diagnosis of cancer for primary health workers course	20%	80%	Training site Reports	NCCP	Quarterly	Reports
		Proportion of comprehensive cancer centres with patient support groups	Number of comprehensive cancer centres with patients support groups	Total number of comprehensive cancer centres	10%	100%	Reports	National and County	Annualy	Reports
		Number of cancer centers offering paediatric cancer care	Number of cancer centers	Not applicable	2	8	Facility assessments	National and County	Annualy	Reports
		Number of level 6 facilities offering bone marrow transplant services	Number of cancer centers	Not applicable	0	5	Facility assessments	NCCP		
		Outcome								
		Proportion of new cancer patients seen at the cancer centres	Number of new cancer patients	Total number of patients see at the cancer center	17%	Not Applicable	MoH 746/ Oncology dashboard	NCCP& Cancer Centres	Annually	KHIS
		Proportion of cancer patients with confirmed histology results	Number of cancer patients with histology results	Total number of cancer patients at the center	31%	90%	MoH 746/ Oncology dashboard	NCCP	Annually	KHIS

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of cancer patients referred out of the country for cancer treatment per year	Number of cancer patients referred out of the country per year	Total number of patients diagnosed with cancer	Not Available	<1%	MoH 746/ Oncology dashboard and Dept of Standards records	NCCP/NHIF	Annually	KHIS
		Proportion of cancer patients treated with chemotherapy	Total number of cancer patients treated with chemotherapy	Total number of cancer patients at the cancer centers	35%	Not Applicable	MoH 746	NCCP	Annually	KHIS
		Proportion of cancer patients treated with surgery	Total number of cancer patients treated with surgery	Total number of cancer patients at the cancer centers	35%	Not Applicable	MoH 746	NCCP	Annually	KHIS
		Proportion of cancer patients treated with radiotherapy	Total number of cancer patients treated with radiotherapy	Total number of cancer patients at the cancer centers	13%	Not Applicable	MoH 746	NCCP	Annually	KHIS
		Proportion of cancer patients treated hormonal/targeted therapy	Total number of cancer patients treated with hormonal therapy	Total number of cancer patients at the cancer centers	5%	Not Applicable	MoH 746	NCCP	Annually	KHIS
		Proportion of patients treated with a combination of chemotherapy, radiotherapy and surgery	Total number of cancer patients treated with combination treatment	Total number of cancer patients at the cancer centers	15%	Not Applicable	MoH 746	NCCP	Annually	KHIS
	Palliative Care	Input								
		Proportion of health facilities providing palliative care services	Number of health facilities providing palliative services	Total number of health facilities	3%	50%	Assessment report	NCCP	Annually	Survey report/ assessment
		Proportion of health facilities (level 4 and above) providing palliative care with morphine	Number of health facilities (level 4 and above) providing palliative care with morphine	Total number of health facilitiess (level 4 and above) providing palliative care	5%	50%	Assessment report	NCCP/counties	Annually	Survey report/ assessment
		Number of counties that have incorporated palliative care in their CHSSPs and AWPs	Number of counties incorporating PC in their health strategic documents	Not applicable	5	47	Health facility assessments reports	NCCP	Annually	Health facility assessments

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of HCWs of different cadres trained in palliative care	Number of HCWs of different cadres trained in palliative care	Not applicable	250	5000	Training reports	NCCP	Annually	Training reports
		Proportion of HCWs trained on PC offering PC services	Number of HCWs trained in PC offering PC services	Total number of HCWs trained in PC	10%	100%	Training reports	NCCP	Annually	NCCP
		Proportion of medical training institutions that have integrated PC training in their curriculums	Number of medical training institutions with PC integrated in their curriculums	Total number of medical training institutions	50%	100%	Training programs records	NCCP	Annually	NCCP
		Number of formal PC trainings programs established	Number of formal PC training programs established locally	Not applicable	3	10		NCCP	Annually	NCCP
		Number of essential PC commodities included in the national list of essential medicines	Number of commodities	Not applicable	1	10	Essential Medicines List	NCCP/HPT	Annually	NCCP
		Output								
		Proportion of cancer survivors with a detailed documented survivorship care plan	No.of cancer survivors with a detailed SCP	Total no.of cancer survivors	Not available	90%	KHIS	NCCP	Annually	KHIS
		Proportion of clients in need of PC accessing services	Number of clients in need of PC accessing services	Total number of clients in need of PC	2%	90%	Cancer registry reports	NCCP, NCI-K	Annually	Cancer registry
		Proportion of cancer clients in need of rehabilitative equipment accessing them	Number of clients in need of rehabilitative equipment (stents, stoma bags, mastectomy bras, PEG tubes, breast prosthesis, voice prosthesis) accessing the equipment	Total number of cancer patients in need of the equipment	2%	90%	Cancer registry reports	NCCP, NCI-K	Annually	Cancer registry
		Proportion of patients in need of PC linked to PC at diagnosis	Number of patients eligible for PC linked to PC services at time of diagnosis	Total number of patients in need of PC	2%	90%	Palliative care summary	NCCP	Monthly	KHIS

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
	Childhood Cancers	Input								
		Number of paediatric oncologists	Number of paediatric oncologists	Not applicable	10	20	Oncology workforce reports	NCCP	Annually	NCCP archives
		Proportion of tracer paediatric cancer available at KEMSA	Number of paediatric cancer formulations available at KEMSA	Total Number of tracer paediatric cancer formulations as per KEML	10%	100%	KEMSA inventory reports	NCCP	Annually	KEMSA
		Proportion of paediatric oncology patients alive five years after diagnosis	Number of paediatric oncology patients alive after five years	Total number of paediatric patients in a specified cohort	20%	60%	PBCR report	NCCP, NCI-K	Annually	Registries
		Number of local paediatric oncology fellowship programs established	Number of local paediatric oncology fellowship programs established	Not applicable	1	3	List of Fellowships available	NCCP	Biennually	NCCP archives
		Output								
		Number of primary health care workers trained on childhood cancers per year	Number of HCW trained on childhood cancers	Not applicable	1000	5000	Training reports	NCCP	Annual	NCCP archives
		Outcome								
		Mortality from childhood cancers per 100,000	Number of childhood cancer deaths	Population of children with cancer aged 0-18years	5.3	4.3	KDHS	Facilities	Annually	KHIS tracker
4 (Advocacy, partnerships, coordination and financing)	**Financing**	Input								
		Number of functional multi-sectoral TWGs established	Number of TWGs established	Not applicable	4	6	TOR, TWG meeting minutes	NCCP	Quarterly	NCCP archives
		Number of counties sensitized on all cancer control policies	Number of counties sensitized	Not applicable	15	47	Sensitization reports	NCCP/NCI-K	Annual	NCCP archives
		Number of stakeholder coordination meetings	Number of stakeholder coordination meetings	Not applicable	1	2	Meeting reports	NCCP	Annual	NCCP archives

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of counties including NCD coordinators in their CHMTs	Number of counties including NCD coordinators in their CHMTs	Not applicable	1	47	NCCP/county focal persons available	National and County	Annually	
		Output								
		Number of stakeholders identified and engaged in public private partnerships at national and county levels of government	Number of stakeholders identified and engaged in public private partnerships at national and county levels of government	Not applicable	60	100	Stakeholders engagement and analysis report	National Level (NCCP, NCI-K)	Annually	NCD navigator, NCCP stakeholder mapping reports
		Proportion of various cadres as per the staff establishment for national level cancer control agencies	Number of various cadres as per the staff establishment for national level cancer control agencies	Number recommended by the staff establishment for various cadres		100%	HR Audit	NCCP and NCI-K	Annually	NCCP human resource database
		Number of management trainings for staff at national cancer control agencies	Number of management trainings for program staff at national cancer control agencies	Not applicable	Not Available	5	Training Reports	NCCP and NCI-K	Annually	NCCP human resource database
		Number of partners supporting various aspects of cancer control interventions at the county and national level	Number of partners supporting various aspects of cancer control interventions at the county and national level	Not applicable		15	Partner mapping reports	NCCP, NCD navigator, NCD coordintors	Annually	NCD navigator, NCCP stakeholder mapping reports
		Number of PPP frameworks finalized	Number of PPPs	Not applicable	2	10	Framework documents	NCCP, NCI-K	Annually	
		Outcome								
		Percentage of total health expenditure allocated to NCDs (including cancer control) at national and county levels	Amount of total health expenditure allocated to NCDs (including cancer control) at national and county levels	Total health expenditure allocation	Not Available	17%	Budget reports	NCCP, NCI-K	Annually	MoH finance office

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
	NHIF and other insurance	Input								
		Number of public sensitization forums on health insurance	Number of forums	Not applicable	Not Available	5	Forum reports	NCCP/ NCIK	Annually	NCCP archives
		Output								
		Number of cancers included in the UHC screening packages	Number of cancers included in the UHC screening packages	Not applicable	0	4	Benefit package	NHIF	Once in two years	NHIF website
		Proportion of level 4-6 health facilities offering the reviewed oncology NHIF package according to the level of care	No. of level 4-6 health facilities offering the reviewed oncology NHIF package according to the level of care	Total no. of level 4-6 facilities	Not Available	50%	Assessment/ Survey report	NCCP/NHIF	Every five years	Survey report/ assessment
		Proportion of the population with health insurance	Number of people with health insurance cover	Total population of the country	20%	100%	Health financing reports	Health Financing	Every five years	MoH finance department
		Proportion of insurance companies offering comprehensive cancer packages	No. of insurance companies offering comprehensive cancer packages	Total no. of insurance companies	Not Available	50%	Assessment/ Survey report	AKI	Every two years	Survey report/ assessment
	Financing	Input								
		Proportion of resource mobilization proposals funded for cancer control	Number of resource mobilization proposals funded for cancer control	Total number of resource mobilization proposals submitted	Not Available	75%	Funding reports	NCCP/NCI-K	annually	NCCP reports/ archives
		Number of investment cases on cancer control funded	Number of investment cases on cancer control funded	Not applicable	1	5	Investment case reports	NCCP/NCI-K	Every five years	NCCP reports/ archives
		Number of costed action plans in cancer control	Number of costed action plans	Not applicable	2	5	Costed action plans	NCCP	Every five years	NCCP reports/ archives
		Output								
		Absorption rate of funds allocated to cancer control	Total funds utilized from the allocated funds	Total budget allocated for cancer control	To be confirmed	100%	Expenditure reports	Health Financing	Annually	Expenditure reports

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of cancer control budget financed from the national treasury	Total cancer control budget financed from the treasury	Total cancer control budget	9%	80%	Budget estimates reports	NCCP/ Finance	Annually	Budget estimates
		Number of county governments with specific budget line for cancer	Number of counties with county cancer budget lines	47	Unknown	100%	County budget documents	NCI-K, NCCP, COG	annually	County budgets documents
	ACSM	Input								
		Number of different IEC materials on cancer and risk factors developed including childhood cancer	Number of different IEC materials on cancer and risk factors developed including childhood cancer	Not applicable	0	7	IEC materials	NCCP, Division of tobacco control, Health Promotion	Annual	Division reports/ website
		Number of media personnel trained in cancer control communication	Number of media personnel trained in cancer control communication	Not applicable	10	50	Training records	NCCP, Health promotion, NCI-K	Annually	Training records
		Number of cancer key messages developed and disseminated for various media platforms	Number of cancer key messages developed and disseminated for various media platforms	Not applicable	55	100	Communication toolkits	NCCP, Health Promotion, NCI-K	Annually	Communication toolkits
		Number of Cancer communication materials for different special populations developed	Number of Cancer communication materials for different special populations developed	Not applicable	Not Available	20	Copy of developed materials	NCCP, Health Promotion, NCI-K	Every five years	NCCP/NCIK archives
		Training material on cancer reviewed	Media training material on cancer reviewed	Not applicable	0	1	Reviewed copy	NCCP, Health promotion, NCI-K	Every five years	NCCP/NCIK archives
		Finalization of National Cancer Communication plan 2022-2026	Not applicable	Applicable	0	1	Signed and final coordination frame work	NCCP	Every five years	NCCP/NCIK archives
		Number of policy briefs on key cancer issues developed and disseminated	Number of policy briefs developed and disseminated	Not applicable	2	10	Policy briefs copies	NCCP	Annual	MoH website

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of media campaigns/bulletins/ publications/ interviews/blogs/ adverts on cancer using various platforms	Number of media campaigns/ bulletins/ publications/ interviews/blogs/ adverts on cancer	Not applicable	2	30	Program/ publication reports/Minutes	NCC, health promotion, NCI-K	Annually	Program/ publication reports
		Number of media polls on cancer-related topics	Number of polls	Not applicable	0	5	Media space review	NCCP, Health Promotion, NCI-K	Annually	Media surveillance reports
		Output								
		Number of MDAs reached with cancer information	No of MDAs reached	Not applicable	5	22	Program reports	NCCP, NCI-K, DNCD	Annually	Program reports
		Proportion of the population reached with cancer messaging	Number of population reached reached with cancer messaging	Total number in the population	Not Available	70%	Communication coverage assessments	NCCP, NCIK, DNCD	Annually	Reports
		Number of HCWs and health administrators trained on cancer control communication	Number of HCWs and health administrators trained on cancer control communication	Not applicable	6000	10000	Training reports	NCI-K, NCCP, Health Promotion	Every two years	NCCP/ NCI-K/health promotion archives
		Proportion of community units that have integrated cancer in their community dialogue day schedules	Number of CU that have integrated cancer communication in their dialogue days	Total number of CUs	Not Available	90%	Community health reports	County Governments	Every five years	NCCP, community health, county departments of health
		Proportion of counties with at least 1 active cancer support group	Number of counties with at least 1 active cancer support group	47	10	47	TWG reports	counties	Every five years	NCCP, NCI-K archives
		Number of priority cancers with toolkits and guides developed	Number of priority cancers with toolkits and guides developed	Not applicable	1	5	Copies of the toolkits	NCCP	Every five years	NCCP
		Number of counties with county -specific cancer strategy action plans	Number of counties with county cancer action plans	Not applicable	0	47	Copies of the strategic action plans	Counties	Every five years	NCCP, NCI-K, county archives

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Proportion of counties incorporating cancer activities in their County Integrated development Plans and Annual Work Plans	Number of counties with cancer incorporated in their AWPs, CIDPs	47	10	47	Websites	Counties	Every 5 years	
		Outcome								
		Increased level of awareness on cancer control and prevention in the general population	Number of people demonstrating adequate level of awareness	Total number sampled	30%	80%	Cancer awareness surveys	NCCP, partners, KNBS	Every five years	Survey reports
5 (Strategic Information, surveillance, registration and research))	**Strengthening of Cancer Registration, Surveillance and M&E**	Input								
		Number of TOTs in cancer registration and surveillance	Number of TOTs	Not applicable	25	100	Training reports	NCCP, NCI-K	Annually	NCCP, NCI-K
		Number of registries (HBCR and PBCR) supported with the requisite infrastructure (IT, internet, physical)	Number of registries	Not applicable	5	10	Registry reports	NCCP, NCI-K	Annually	NCCP, NCI-K
		Proportion of health facilities adopting an integrated, comprehensive EMR in cancer care	Number of facilities with an integrated, comprehensive EMR in cancer care	Total number of facilities with cancer centres	0%	50%	Facility assessments reports	NCCP, Facilities, Implementing Partners	Annually	NCCP
		Proportion of HRIOs trained on Cancer registration	Number of HRIOs trained on Cancer registration	Total number of HRIOS	2%	70%	Training reports	NCCP	Annually	NCCP
		Proportion of HRIOs trained on use of ICD-11	Number of HRIOs trained on use of ICD-11	Total number of HRIOS	10%	70%	Training reports	NCCP	Annually	NCCP
		Number of county referral facilities with hospital-based cancer registries	Number of county referral facilities with hospital-based cancer registries	Not applicable	12	20	Annual Report	NCCP, NCI, County	Annual	NCCP,NCI-K
		Number of population based cancer registries established	Number of population based cancer registries established	Not applicable	2	5	Annual Report	NCCP, NCI-K	Annual	NCCP,NCI-K

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of DQAs conducted cancer data	Number of DQAs conducted cancer data	Not applicable	2	10	DQA Reports	NCCP,NCI-K,HISM&E	Biannually	NCCP,NCI-K
		Output								
		Reporting rates for MOH 745	Number of health facilities reporting to KHIS	Total number of health facilities offering cancer screening services	45%	100%	KHIS	NCCP,HIS	Monthly	KHIS
		Reporting rates for MOH 746	Number of health facilities reporting to KHIS	Total number of health facilities offering cancer treatment services	60%	100%	KHIS	NCCP,HIS	Monthly	KHIS
		Number of counties implementing a continous quality improvement program on cancer control	Number of counties	Not applicable	2	47	Quality audit/ assessment reports	County HMTs	Annually	NCCP
	Research	Input								
		Number of people trained on conducting cancer research	Number of people trained on conducting cancer research	Not applicable	0	100	Training reports	NCCP, NCI, KEMRI	Annually	Training reports
		Poportion of total national research budget allocated to cancer research	Research budget allocated to cancer research	Total national research budget	-	20%	Research grants award documents, NRF reports	NCCP, NRF	Annually	NRF Reports
		Number of dissemination fora for the national cancer research agenda	Number of fora	Not applicable	Not Available	5	Forum reports	NCCP, NCI-K	Annually	NCCP, NCI-K archives
		Number of cancer research proposals funded	Number of cancer research proposals funded	Not applicable	6	10	NRF grants reports	NRF, NCI-K, NCCP	annually	NRF grants reports
		Number of cancer research conducted within the country	Number of cancer research conducted within the country	Not applicable	15	50	Research projects repositories	NCI-K, NACOSTI, ERCs	annually	Research projects repositories

Pillar	Domain	Indicators	Numerator	Denominator	Baseline	Target	Means of verification	Reporting Responsibility	Reporting Frequency	Source of data
		Number of cancer research funding opportunities identified	Number of cancer research funding opportunities identified	Not applicable	5	20	Complied list of identified opportunities	NCI-K, NCCP	annually	
		Output								
		Number of published cancer research projects in the country	Number of published cancer research projects in the country	Not applicable	Not Available	10	Research databases searches (pubmed, SCOPUS, etc)	National	Annually	Research databases
		Number of policy briefs generated from published cancer research in the country	Number of policy briefs	Not applicable	1	10	MoH website	National	Annually	MOH websites
		Outcome								
		Cancer research uptake into policy and clinical guidelines incorporating locally generated research evidence	Number of policies/guidelines incorporating locally generated research	Not applicable	Not Available	10	MoH website	National	Every five years	MoH website

Annex 5: Implementation Matrix for Key M/E Activities

Key M&E result area	Activities	Expected Output	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028
Dissemination of the MEAL framework	Development of dissemination materials	Developed materials	X				
	Conduct the dissemination workshops in all the regions (all counties)	Workshops conducted	X				
	Prepare the dissemination report	Report finalized and disseminated	X				
Dissemination of the NCCS 2023-2027	Development of dissemination materials	Materials developed	X				
	Conduct the dissemination workshops in all the regions (all counties)	Workshops conducted	X				
	Prepare the dissemination report	Report finalized and disseminated	X				
Development of Annual Work Plans	Evaluation of previous AWPs	Evaluation conducted	X	X	X	X	X
	Pillar development of AWP	Pillar AWP developed	X	X	X	X	X
	Internal review of consolidated AWP	Internal AWP review conducted	X	X	X	X	X
	Finalization and submission of AWP	AWP finalized	X	X	X	X	X
Data and service quality improvement	Preparation of DQA and SQA concept/protocol	Concept finalized	X	X	X	X	X
	Conduction of scheduled DQAs	DQAs conducted	X	X	X	X	X
	Data processing and dissemination	Data processing finalized	X	X	X	X	X
	Preparation of the annual DQA reports	Annual report finalized and disseminated	X	X	X	X	X
Continuous quality improvement technical support to counties	Preparation of concept notes/ protocols	Concept finalized	X	X	X	X	X
	Conduction of the technical support visits	Visits finalized	X	X	X	X	X
	Preparation of visit reports	Report finalized and disseminated	X	X	X	X	X

Key M&E result area	Activities	Expected Output	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028
Annual review of the implementation of the NCCS 2023-2027	Preparation of the annual review meeting concepts	Concept finalized	X	X	X	X	X
	Review workshop logistical planning	Workshops planning completed	X	X	X	X	X
	Conduction of the annual review meetings	Annual review workshops conducted	X	X	X	X	X
	Annual review report preparation	Report drafting finalized	X	X	X	X	X
	Review of the annual evaluation report	Report reviewed and feedback incorporated	X	X	X	X	X
	Dissemination of the report to the stakeholders	Report disseminated	X	X	X	X	X
Development of the national cancer research agenda	Concept preparation	Concept finalized	X	X	X	X	X
	Conduction of stakeholder workshops	Stakeholder workshops conducted	X	X	X	X	X
	First draft of the research agenda finalized	Draft finalized	X	X	X	X	X
	External review of the research agenda	Draft reviewed	X	X	X	X	X
	Validation of the agenda	Validation conducted	X	X	X	X	X
	Finalization and launch of the research agenda	Research agenda finalized and launched	X	X	X	X	X
	Dissemination of the research agenda	Research agenda disseminated	X	X	X	X	X
Evaluation of the colorectal cancer screening pilot	Final evaluation protocol preparation	Protocol/concept developed					
	Conduction of the pilot evaluation	Pilot evaluation conducted					
	Data processing	Data processing finalized					
	Evaluation report drafting	Report finalized					
	Finalization and dissemination of the evaluation report	Reprt disseminated					
Roll-out of the oncology EMR	Finalization of the oncology modules	Modules finalized					
	Piloting of the oncology modules	Piloting conducted					
	Phase 1 roll-out	Roll-out complete	X				
	Phase 2 roll-out	Roll-out complete		X			
	Pashe 3 roll-out	Roll-out complete			X		

Key M&E result area	Activities	Expected Output	2023/ 2024	2024/ 2025	2025/ 2026	2026/ 2027	2027/ 2028
Conduction of national surveys with cancer indicators	Conduction of the various surveys (KDHS, STEPS)	Surveys conducted					X
	In-depth analysis on cancer indicators using the survey datasets	Analysis conducted	X				
	Dissemination of the detailed survey findings	Dissemination conducted	X				
Mid-term review of the NCCS 2023-2027	Preparation of the mid-term review concept paper/ protocol	Concept finalized			X		
	Mid-term review data collection	Data collection conducted			X		
	Data processing workshop	Workshop conducted			X		
	Report preparation	Report finalized			X		
	Report dissemination	Report disseminated			X		
End-term evaluation of the NCCS 2023-2027	Preparation of the end-term review concept paper/ protocol	Concept finalized					X
	End-term review data collection	Data collection conducted					X
	Data processing workshop	Workshop conducted					X
	Report preparation	Report finalized					X
	Report dissemination	Report disseminated					X
End-term evaluation of the MEAL framework 2023-2027	Preparation of the end-term review concept paper/ protocol	Concept finalized	X	X	X	X	X
	End-term review data collection	Data collection conducted	X	X	X	X	X
	Data processing workshop	Workshop conducted	X	X	X	X	X
	Report preparation	Report finalized	X	X	X	X	X
	Report dissemination	Report disseminated	X	X	X	X	X
Preparation of scientific products (manuscripts and abstracts)	Manuscripts writing workshops	Workshops held	X	X	X	X	X
	Internal review of manuscripts	Manuscripts reviewed	X	X	X	X	X
	Submission of manuscripts to journals/abstracts to conferences	Manuscripts/abstracts submitted	X	X	X	X	X

Annex 6: Glossary of Select Monitoring and Evaluation Terms

Inputs: Refer to all those resources that go into the cancer control programs at the onset or start-up phase or during the implementation to help the programs achieve their objectives.

Activities/Processes: These are actions taken, or the work performed as part of an intervention. Examples of activities include technical advice and supervision for health workers involved in various activities, training/capacity development, coordination and review. Activities utilize inputs, such as funds, technical assistance and other types of resources to produce specific outputs. Monitoring of these activities will show what has been done and how well and timely they have been done based on the planned nutrition programme as stipulated in the national and county level M&E Frameworks.

Outputs: These refer to all goods and services produced after implementation of activities by those involved in cancer control programs at the national and county levels in line with the priorities of the NCCS. These will include the number of training sessions, number of those trained, number of cancer technical supervisions at county and field levels etc.

Outcomes: These are changes in behaviours/ practices as a result of programme activities. The outputs, if of the right quantity and quality, should produce an outcome. For example, the knowledge and skills acquired by the health service providers should enable them to correctly undertake clinical breast examination or conduct cervical cancer screening.

Impacts: Refer to the achievement of higher-level goals which a programme can contribute to, for example increased cancer screening coverage, improved financing of cancer control programmes, improved legislation for cancer control etc.

Assumptions: Refers to the external factors, influences, situations or conditions which are necessary for a programme but are largely or completely beyond the control of programme management. Example: availability of financial resources.

Indicator: A measure of change, progress or state. Programme indicators are at various levels, input, output, process, outcome and impact.

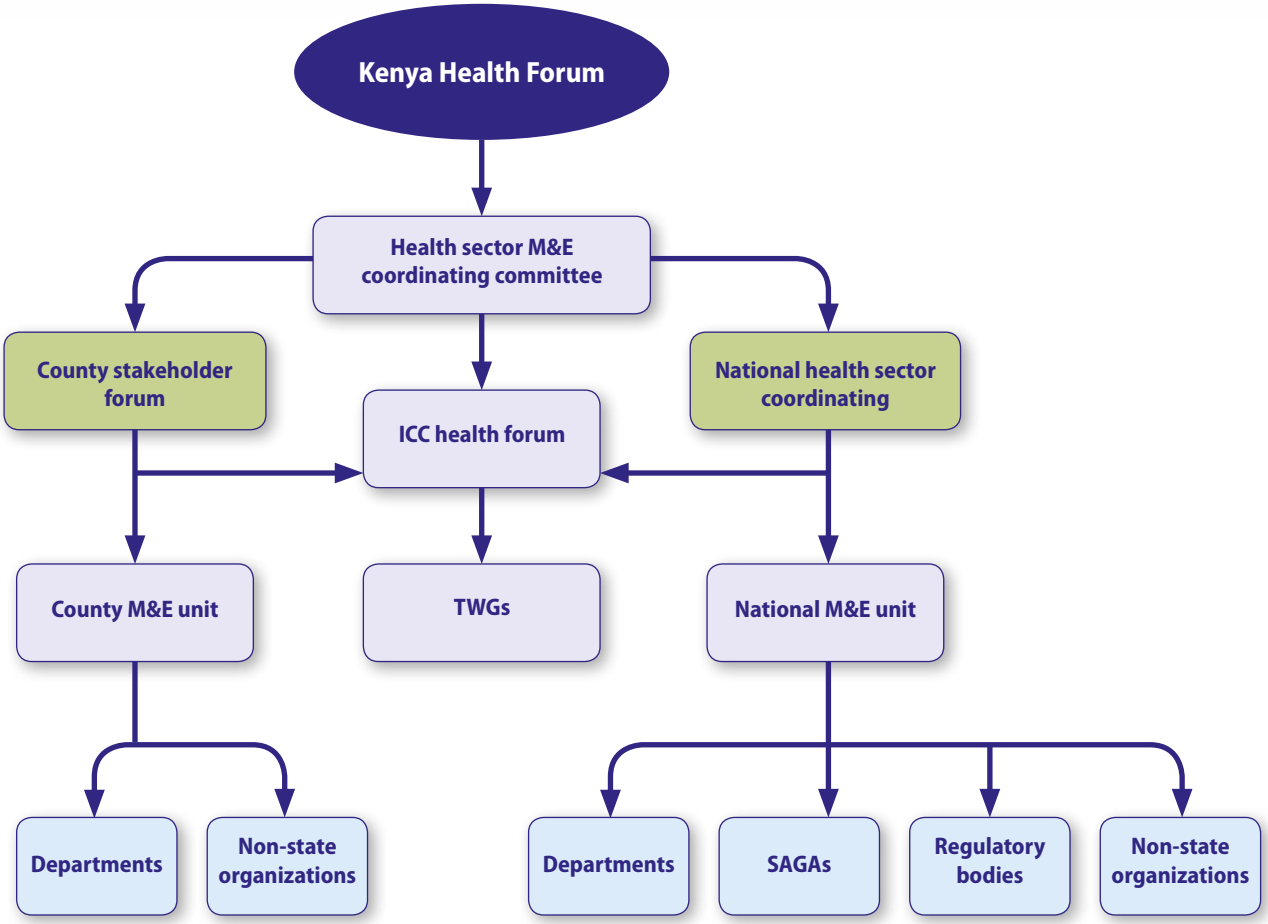

Figure 12: Examples of guiding questions for an effective cancer control QIT meeting

Annex 7: Examples of guiding questions for an effective cancer control QIT meeting

I. Do you have a functional Quality Improvement Team, that undertakes Continuous Quality Improvement?
II. Do you have function work improvement teams at all cancer service provision points at health facilities?
III. Have we internalized our indicators, targets and standards?
IV. Do we have a simple screening and treatment commodities inventory?
V. Do we have an effective fail-safe mechanism, that tracks screened clients throughout the cascade?

Annex 8: National and County M&E Organogram

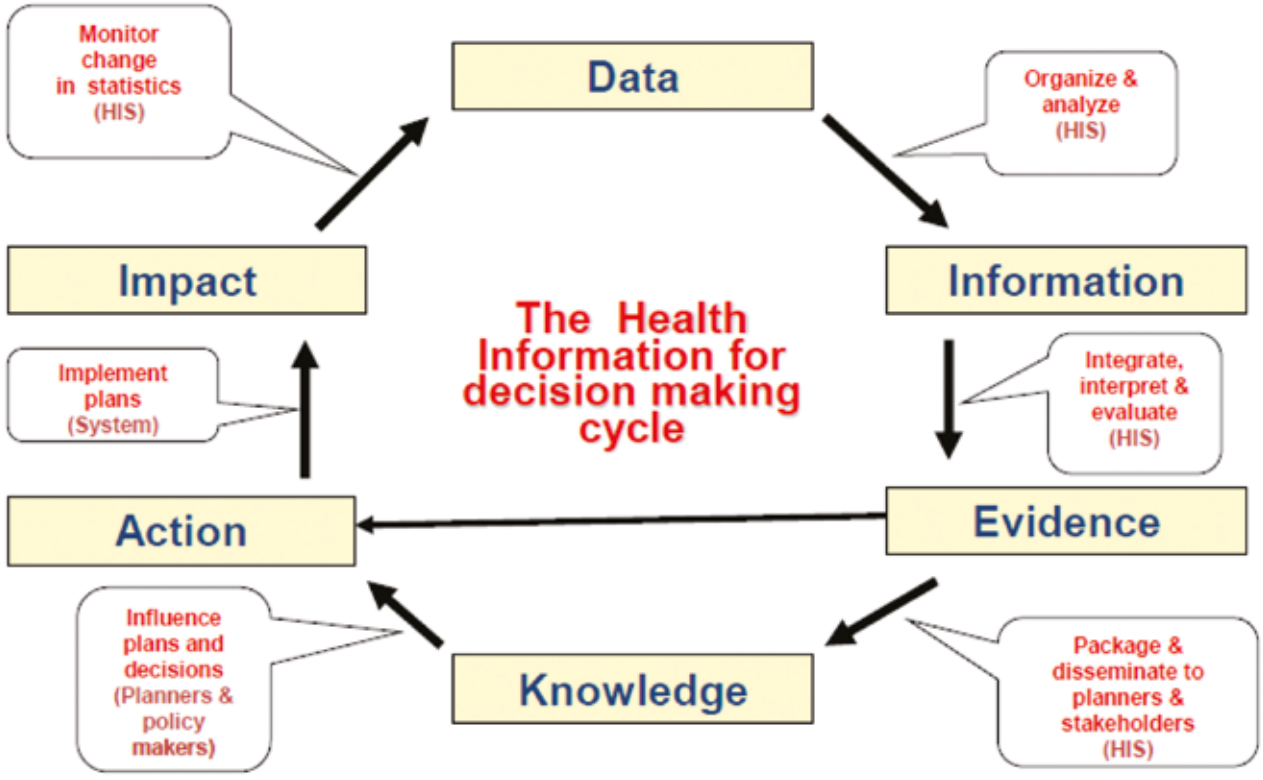

Figure 13: National and county M&E organogram

Annex 9: Data Use Cycle

Annex 10: List of contributors

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