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Ministry of Health

NATIONAL SURGICAL SERVICES STRATEGIC PLAN

2026-2031



NATIONAL SURGICAL SERVICES STRATEGIC PLAN

2026-2031



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Table of Contents

List of Tables	v
List of Figures	v
Foreword	vi
Acknowledgment	vii
Executive Summary	viii
Operational Definition of Terms	ix
Abbreviations	x
Chapter One: Background	1
1.1 Introduction	2
1.2 Global and Kenya National country context commitments	2
1.3 Rationale for the Strategic Plan	2
1.4 Purpose and Strategic Objectives	2
1.5 Scope and Application	2
1.6 Target Audience	2
1.7 Process of Plan Development	3
Chapter Two: Situational Analysis	4
2.1 Introduction	5
2.2 Kenya's Health Care Systems	5
2.2.2 Referral System	5
2.3 Policy Framework for NSSSP	6
2.3.1 Process and Methodology	6
2.4 Surgical Services Country Context	7
2.4.1 Workforce shortages and HRH maldistribution	7
2.4.2 Supply chain disruptions	7
2.4.3 Inadequate infrastructure	8
2.4.4 Fragmented Health Information Systems (HIS)	8
2.4.5 Weak surgical referral systems	8
2.4.6 Environmental scan	8
2.4.7 SWOT Analysis	8
2.4.7.1 Strengths	8
2.4.7.2 Weaknesses	9
2.4.7.3 Opportunities	9
2.4.7.4 Threats	10
2.4.8 PESTEL Analysis	10
2.5 Overall, National Surgical Services identified gaps in Kenya	10
2.5.1 Leadership and Governance	10
2.5.2 Health Financing	11
2.5.3 Health Products and Technologies (HPTs)	11
2.5.4 Health Workforce	11
2.5.5 Infrastructure	11
2.5.6 Service Delivery	11
2.5.7 Health Information Systems, Monitoring, Evaluation & Research	11
Chapter Three: Surgical Services Strategic Model	13
3.1 Vision	14
3.2 Mission	14
3.3 Strategic	14
3.4 Strategic objectives	14

3.4.1 STRATEGIC OBJECTIVE ONE: To strengthen leadership, governance, and coordination mechanisms for effective planning and delivery of surgical services.	14
3.4.1.0 Key Actions:	15
3.4.1.1 Develop and operationalize national policies on emergency surgical services coordination and integrated disaster preparedness	15
3.4.1.2 Establish coordination and partnerships frameworks for surgical services	15
3.4.1.3 Strengthen sustainable planning for financing of surgical resources	15
3.4.2 STRATEGIC OBJECTIVE TWO: To build and maintain a competent, well-distributed, and motivated surgical health workforce.	16
3.4.2.0 Key Actions:	16
3.4.2.1 Workforce and HRH development for surgical service delivery	16
3.4.2.2 Match workforce to population health needs through enhanced HRH planning and national observatories.	16
3.4.2.3 Institutionalize structured mentorship programs across all counties.	16
3.4.3 STRATEGIC OBJECTIVE THREE: To improve the availability, functionality, and maintenance of essential surgical infrastructure and equipment for optimal service delivery.	17
3.4.3.0 Key Actions:	18
3.4.3.1 Strengthen surgical infrastructure at all levels of care	18
3.4.3.2 Standardize procurement and distribution of surgical equipment	18
3.4.3.3 Enhance maintenance and sustainability of surgical equipment and infrastructure	18
3.4.3.4 Promote innovative technologies to expand surgical capacity	18
3.4.4 STRATEGIC OBJECTIVE FOUR: To expand equitable access to safe, timely, and quality surgical services at all levels of the health system.	19
3.4.4.0 Key Actions:	19
3.4.4.1 Strengthen referral systems for surgical services	19
3.4.4.2 Improve community awareness and health-seeking behaviour for surgical conditions	19
3.4.4.3 Strengthen surgical service delivery capacity at primary and county referral levels	19
3.4.4.4 Enhance quality and safety standards for surgical care	19
3.4.5 STRATEGIC OBJECTIVE FIVE: To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making.	20
3.4.5.0 Key Actions:	21
3.4.5.1 Strengthen integration of surgical indicators into national health information systems	21
3.4.5.2 Improve surgical data quality, analysis, and use	21
3.4.5.3 Strengthen surgical monitoring, evaluation, and learning systems	21
3.4.5.4 Promote operational research and innovation in surgical care	21
Chapter Four: Implementation & Co-ordination Framework	22
4.1 Roles and Responsibilities of Various Surgical Services Stakeholders	23
4.2 Coordination management and governance arrangements	24
Chapter Five: Monitoring & Evaluation Framework	25
Chapter Six: Financial Requirements, Costing & Budgeting	35
6.1 Strategic costing	36
6.2 Costing and budgeting	36
6.2.1 Financial Costing and Budgeting Approach	36
6.2.2 Total financial resource requirements	36
6.3 Financial per strategic objective Requirements	37
6.3.1 Proportionate requirements	37
Annexes	41
Annex I: Theory of Change	41
Annex II: Indicator Definitions	42
References	44
Key Contributors	46

List of Tables

Table 1: Kenya Essential Packages for Health facilities in the country	5
Table 2: Strengths of Kenya's Surgical System	8
Table 3: Weaknesses of Kenya's Surgical System	9
Table 4: Opportunities for Kenya's Surgical System	9
Table 5: Threats to Kenya's Surgical System	10
Table 6: PESTEL Analysis	10
Table 7: Overall Health Systemic Gap Analysis for Surgical Services	11
Table 8: STRATEGIC PILLAR 1: Leadership, Governance & Coordination	15
Table 9: STRATEGIC PILLAR 2: Health Financing & Resource Mobilization	16
Table 10: Strategic pillar 3: Surgical workforce.	17
Table 11: Surgical equipment and infrastructure analysis	18
Table 12: Strategic objective four situation analysis gaps	20
Table 13: Strategic objective five situation analysis gaps	21
Table 14: Responsibilities of various Stakeholders	23
Table 15: Monitoring and evaluation framework	27
Table 16: Financial requirement disaggregated by strategic objective (KES in millions)	37
Table 17: NSSSP implementation five-year financial requirements (KES)	39

List of Figures

Figure 1: Kenya referral health system structure	6
Figure 2: policy orientations, objectives, and goals	7
Figure 3: National and county surgical governance & coordination framework	24
Figure 4: Annual financial NSSSP Requirement	37
Figure 5: proportionate required allocation	38

Foreword

Surgical care is a vital component of our journey towards achieving Universal Health Coverage (UHC) and safeguarding the health and dignity of every Kenyan. Yet, far too many lives are lost or burdened due to preventable surgical conditions that go untreated because of limited access, workforce shortages, or under-resourced facilities, particularly in rural and underserved regions.

The development of the Kenya National Surgical Services Strategic Plan (NSSSP) 2026–2031 marks a significant milestone in our commitment to equitable and resilient healthcare. This strategic plan provides a bold, systematic, and well-costed framework for improving access to safe, timely, and affordable surgical, obstetric, and anaesthesia (SOTA) care across all levels of the health system. It aligns with global commitments such as WHA Resolution 68.15 and our national aspirations under Vision 2030 and the Kenya Health Policy 2014–2030.

The Plan is more than a health document, and health being in the social sector, the plan is a national commitment to justice, inclusion, and quality. It outlines pragmatic pathways to strengthening our surgical workforce, enhancing infrastructure, building robust referral systems, and integrating surgical indicators into our health information systems. With a projected investment of KES 33.7 billion over five years, this plan reflects our resolve to make lifesaving surgical care accessible to every Kenyan.

As we roll out this Plan, I call on all stakeholders; national and county governments, the private sector, professional societies, civil society, and development partners, to work in concert. Together, we can ensure that no Kenyan is denied surgery due to poverty, geography, or system failure.



Hon. Aden Duale, EGH
Cabinet Secretary for Health
Ministry of Health, Kenya



Hon. Aden Duale, EGH

Acknowledgment

The development of the Kenya National Surgical Services Strategic Plan (NSSSP) 2026–2031 has been a deeply collaborative and inclusive process, bringing together technical experts, health managers, the surgical workforce, researchers, professional bodies, civil society, and development partners from across Kenya and beyond.

I wish to sincerely thank the Surgical Society of Kenya, the Kenya Orthopaedic Association, anaesthesia providers, obstetricians, and health economists who played an instrumental role in shaping the technical direction of this Plan. We also appreciate the invaluable contributions of the Ministry of Health's planning, health workforce, and infrastructure departments. Their technical diligence ensured alignment with broader health system reforms and national development priorities.

Special thanks also go to the county governments who participated actively in consultations and offered crucial insights from the frontlines of service delivery. Our development partners, including WHO, NGOs, and private sector actors, provided both intellectual and financial support, for which we are grateful. The Ministry is also indebted to Operation Smile for their immense technical and financial assistance towards developing this Strategic Plan.

This Plan is not merely a document it is a call to action. It sets out a clear framework for addressing our nation's surgical care needs with equity, efficiency, and sustainability. I urge all stakeholders to take up their roles with urgency and resolve.



Dr. Ouma Oluga, OGW

Principal Secretary

State Department for Medical Services



Dr. Ouma Oluga, OGW

Executive Summary

Kenya's health system faces a significant burden of surgical, obstetric, and anaesthesia (SOTA) conditions, yet access to safe and timely surgical care remains limited for a large portion of the population. In response, the Kenya National Surgical Services Strategic Plan (NSSSP) 2026–2031 has been developed to provide a comprehensive, multisectoral, and costed roadmap to transform surgical care delivery across all levels of the health system.

The Plan is structured around five strategic objectives:

1. Leadership and Governance – To enhance coordination, regulatory oversight, and multisectoral collaboration.
2. Surgical Workforce – To build a competent, equitably distributed, and motivated surgical workforce through training, retention, and mentorship.
3. Infrastructure and Equipment – To improve availability, maintenance, and functionality of surgical infrastructure, including the adoption of innovative technologies.
4. Service Delivery – To expand equitable access to surgical services, strengthen referral systems, and improve community health-seeking behaviour.
5. Health Information Systems and Research – To strengthen surgical data systems, institutionalize monitoring and evaluation, and promote operational research.

The total projected investment for implementing the NSSSP is **KES 33.7 billion** over five years. The majority of this investment—**72%**—is directed toward service delivery improvements (SO4), followed by infrastructure (16%) and health information systems (9%). This distribution reflects a strategic focus on expanding access while building sustainable systems.

With clearly defined indicators, milestones, and accountability mechanisms, the NSSSP offers a robust framework to guide national and county-level planning, budgeting, and service implementation.



Dr. Patrick Amoth, CBS

Director - General for Health
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Operational Definition of Terms

1. **Surgical care:** Surgical care refers to a broad spectrum of medical services provided by professional surgical providers and professional surgical workforce. It encompasses all stages of surgical intervention, from diagnosis and preoperative care to intraoperative and postoperative management, including patient recovery and rehabilitation.
2. **Surgical provider:** are healthcare professionals who are trained to assist in or perform surgical procedures, depending on their level of education, licensure, and the healthcare system in which they operate. They play a critical role in improving access to surgical care, especially in resource-constrained settings such as rural or underserved areas in Kenya and other low- and middle-income countries.
3. **Surgical services:** Surgical services are the specific procedures and operations performed by healthcare professionals to treat injuries, diseases, and deformities. This includes all related activities such as preoperative assessment, surgical procedures, postoperative care, and follow-up consultations.
4. **National Surgical, Obstetric, and Anesthesia Plan (NSOAP):** NSOAP is a comprehensive, country-specific strategy developed to improve access to safe, affordable, and timely surgical, obstetric, and anaesthesia care. It outlines the key priorities, policies, and actions needed to strengthen surgical systems within the healthcare framework, addressing gaps in infrastructure, human resources, service delivery, financing, and information systems.
5. **National Surgical, Obstetric, Trauma, and Anesthesia Plan (NSOTA):** NSOTA is an expanded version of NSOAP, incorporating trauma care into the strategic framework. It aims to improve the quality and accessibility of surgical, obstetric, trauma, and anaesthesia services by addressing the broader spectrum of surgical needs, including emergency and trauma care.
6. **Preoperative care:** Preoperative care includes all the medical assessments, consultations, and preparations conducted before a surgical procedure to ensure that the patient is ready for surgery. This involves evaluating the patient's health status, optimizing medical conditions, and providing necessary patient education.
7. **Intraoperative care:** Intraoperative care refers to the management and monitoring of a patient during a surgical procedure. It includes anaesthesia administration, surgical technique, and the continuous assessment of the patient's physiological status to ensure a successful operation.
8. **Postoperative care:** Postoperative care involves the monitoring and management of a patient's recovery following surgery. This includes pain management, wound care, monitoring for complications, and rehabilitation services aimed at ensuring full recovery and minimizing the risk of postoperative complications.
9. **Post discharge care:** Encompasses all the follow-up services provided to a patient after they have been discharged from the hospital following surgery. It includes home care instructions, outpatient visits, monitoring of recovery progress, and any additional treatments or interventions needed to ensure complete recovery.
10. **Surgical workforce:** Includes all health professionals involved in the delivery of surgical care and allied health professionals who support surgical services such as procedures and patient care.
11. **Surgical infrastructure:** Refers to the physical facilities, equipment, and technology required to deliver surgical services. This includes operating rooms, recovery units, diagnostic tools, sterilization equipment, and other essential resources needed to perform surgeries safely and effectively.
12. **Universal Health Coverage (UHC):** UHC is the concept of ensuring that all individuals and communities have access to the healthcare services they need without suffering financial hardship. It encompasses the full spectrum of essential health services, including preventive, promotive, curative, rehabilitative, and palliative care.
13. **Health System Strengthening (HSS):** Efforts and strategies aimed at improving the performance of a health system. This includes improving service delivery, health financing, health workforce, health information systems, and governance, ensuring that the system is resilient, efficient, and responsive to the needs of the population.
14. **Essential Surgical Package:** Set of surgical interventions or priority range of procedures considered necessary and cost-effective for addressing the most common and severe health conditions.

Abbreviations

Abbreviation	Full Form
AI	Artificial Intelligence
CHMT	County Health Management Team
CHP	Community Health Promoter
CIDP	County Integrated Development Plan
COSECSA	College of Surgeons of East, Central and Southern Africa
CPD	Continuing Professional Development
CUE	Commission for University Education
DDMU	Disaster and Disease Management Unit
eCHIS	Electronic Community Health Information System
e-LMIS	Electronic Logistics Management Information System
EML	Essential Medicines List
FIF	Facility Improvement Fund
HIS	Health Information System
HMIS	Health Management Information System
HMT	Hospital Management Team
HRH	Human Resources for Health
HRHIS	Human Resource for Health Information System
HRIS	Human Resource Information System
ICT	Information and Communication Technology
KEMSA	Kenya Medical Supplies Authority
KEPH	Kenya Essential Package for Health
KHIS	Kenya Health Information System
M&E	Monitoring and Evaluation
MDT	Multidisciplinary Team
MES	Managed Equipment Services
MTEF	Medium-Term Expenditure Framework
NSSSP	National Surgical Services Strategic Plan
OT	Operating Theatre
PPPs	Public-Private Partnerships
QAU	Quality Assurance Unit
SAO	Surgical, Anaesthesia, and Obstetric
SDG	Sustainable Development Goal
SDU	Surgical Department–Unit
SOTA	Surgical, Obstetric, Trauma, and Anaesthesia
TVET	Technical and Vocational Education and Training
TWG	Technical Working Group
UHC	Universal Health Coverage



Chapter One: Background

Chapter One: Background

1.1 Introduction

Surgical care is an essential component of a resilient and equitable health system. In Kenya, a significant proportion of the disease burden arises from conditions requiring surgical, obstetric, trauma, and anaesthesia (SOTA) care, including maternal health complications, trauma, cancer, and non-communicable diseases. Yet access to safe, timely, and affordable surgical care remains limited, with an estimated 70% of the population lacking access.

Deaths due to surgically treatable conditions are higher than those from HIV/AIDS, tuberculosis, and malaria combined in many low- and middle-income countries (LMICs), and about one-third of the global burden of disease is treatable through surgery. Kenya's surgical system faces persistent challenges: shortages of skilled personnel, inadequate infrastructure, high out-of-pocket costs, and regional disparities in access. The availability and distribution of the surgical workforce remains insufficient, with only 2,280 surgical specialists as of 2024 equating to a density of 3.8 Surgical, Anaesthesia, and Obstetric (SAO) providers per 100,000 population, far below the recommended 20-40 per 100,000.

Kenya's devolved health system, established under the 2010 Constitution, was designed to improve access, equity, and service delivery efficiency. The country's health system is structured into six levels, with surgical services offered predominantly at levels 4 to 6.

1.2 Global and Kenya National country context commitments

The 68th World Health Assembly (WHA) passed Resolution 68.15 in 2015, calling for all member states to strengthen emergency and essential surgical care as part of Universal Health Coverage (UHC). This aligns closely with Kenya's UHC agenda, the World Bank's surgical World Development Indicators, and the United Nations' Sustainable Development Goals (SDGs). In line with global trends, many LMICs have developed National Surgical, Obstetric, and Anaesthesia Plans (NSOAPs) to systematize and scale up surgical care.

Kenya, recognizing the importance of coordinated and well-resourced surgical services, initiated development of its first National Surgical Services Strategic Plan (NSSSP) 2026–2031. The plan aims to strengthen health systems across Kenya, ensuring surgical care is accessible, safe, affordable, and of high quality.

1.3 Rationale for the Strategic Plan

The concentration of surgical services at higher-level facilities has led to significant bottlenecks resulting in delays, complications, and high mortality rates. Lower-level facilities often lack trained personnel, essential equipment, and operational theatres, making timely interventions difficult. These disparities strain resources at national and county referral hospitals, contributing to inefficiencies and adverse outcomes.

To address these challenges and align with UHC, the NSSSP was developed to guide the transformation of surgical care delivery. It incorporates global best practices and frameworks, including the WHO's six health system building blocks, and integrates insights from Kenya's own context and baseline situational analysis.

1.4 Purpose and Strategic Objectives

Purpose: To ensure the provision of affordable, accessible, safe, timely, and standardized surgical services at all levels of healthcare to improve quality of life in line with UHC.

1.5 Scope and Application

The NSSSP covers all levels of healthcare and targets all population cohorts across the life course. It is intended for national and county governments, professional societies, academic institutions, healthcare providers, civil society organizations, and development partners involved in strengthening surgical systems.

1.6 Target Audience

Health Managers, CHMT, Surgical providers and health practitioners in the public and private sector, and stakeholders in Kenya

1.7 Process of Plan Development

The NSSSP was developed through a participatory process that included a national workshop held in Naivasha in June 2024. Stakeholders included representatives from the Ministry of Health, county governments, professional associations (e.g., Surgical Society of Kenya, Kenya Orthopaedic Association), academic institutions, private sector players, civil society, development partners, and health service users. The process involved stakeholder consultations, priority-setting exercises, and a national situational analysis

Chapter Two: Situational Analysis

Chapter Two: Situational Analysis

This chapter provides a comprehensive analysis of the internal and external environment shaping Kenya's surgical services landscape. It draws from system-level data, government reports, academic literature, and stakeholder insights to identify key strengths, weaknesses, opportunities, and threats (SWOT), as well as Political Economic Social Technological, Ecological and Legal (PESTEL) and current factors influencing the delivery and planning of surgical services.

2.1 Introduction

Surgical care forms a critical pillar of a functional health system and is essential to achieving Universal Health Coverage. In Kenya, surgical, obstetric, trauma, and anaesthesia (SOTA) services address a significant proportion of the country's disease burden, including maternal conditions, injuries, and non-communicable diseases. Estimates suggest that up to 30% of the global disease burden is amenable to surgical care, including conditions like obstructed labour, traumatic injuries, cancers, and congenital anomalies.

However, despite its critical role, the surgical system in Kenya remains underfunded, poorly integrated, and unequally distributed across the country. Rural and underserved counties face chronic shortages of surgical workforce, infrastructure, and essential supplies, contributing to delayed or inadequate care.

2.2 Kenya's Health Care Systems

General Health Care System

The Kenyan health system has six Kenya Essential Package for Health (KEPH) levels of care with three categories of services providers namely; government (GOK), private, faith-based and NGO health facilities as shown in the table below. As per the Kenya Master Health Facility Register (KMFR) there are 17,109 health facilities in Kenya, of which 41.7% are public, 49.7% are private, 6.3% are Faith-based organizations and 2.2% are non-government organizations (NGOs).

Table 1: Kenya Essential Packages for Health Facilities in the Country

Service Category	KEPH Level	MOH	Private Practice	Faith-Based Organization	NGO	Total	Percentage
Primary Care Services	Level 2+3	6693	7871	936	372	15872	93%
	Level 2	5298	5617	679	307	11901	70%
	Level 3	1395	2254	257	65	3971	23%
County Referral Health Services	Level 4+5	440	640	138	12	1230	7%
	Level 4	406	611	129	12	1158	7%
	Level 5	34	29	9	0	72	0%
National Referral Services	Level 6	7	0	0	0	7	0%
Total		7140	8511	1074	384	17109	100%
Percentage		41.7%	49.7%	6.3%	2.2%		

Source: Kenya Master Health Facility Register (KMFR) March 2026

2.2.1 Referral System

The Kenya Health Sector Referral Strategy classifies the different referral services, taking into consideration the existing infrastructure in the KEPH levels as follows: -

- Community health services (level 1) facilitate linkage to primary health care services.
- Primary health care services (levels 2 and 3) manage referrals from communities and facilitate referrals to the nearest county referral facilities.
- County health referral services (levels 4 and 5) form the county referral system, with specific services shared among the existing county referral facilities to form an effective network of comprehensive referral services.
- National health referral services (level 6) form the national centres of excellence providing specialized services and training of health care workers.

In some county referral hospitals in Kenya, there are surgical units although with different capacities. Most of them can offer emergency surgical services, and some offer surgical services with options for onward referral to level 6. Referrals are usually received from Primary Care networks (PCN) within the counties, other County health facilities, Community health units. There are also the apex national referral services at level 6 which operate with a defined level of autonomy. In Kenya, there are three four national referral hospitals namely Kenyatta National Hospital, Moi Teaching and Referral Hospital, Kenyatta University Teaching, Referral and Research Hospital, Jaramogi Oginga Odinga Teaching and Referral Hospital, Mathari National Teaching and Referral Hospital, National Spinal Injury Referral Hospital that offer highly specialized surgical services. In addition, there are some Faith Based and privately owned facilities that offer specialized SURGICAL services.

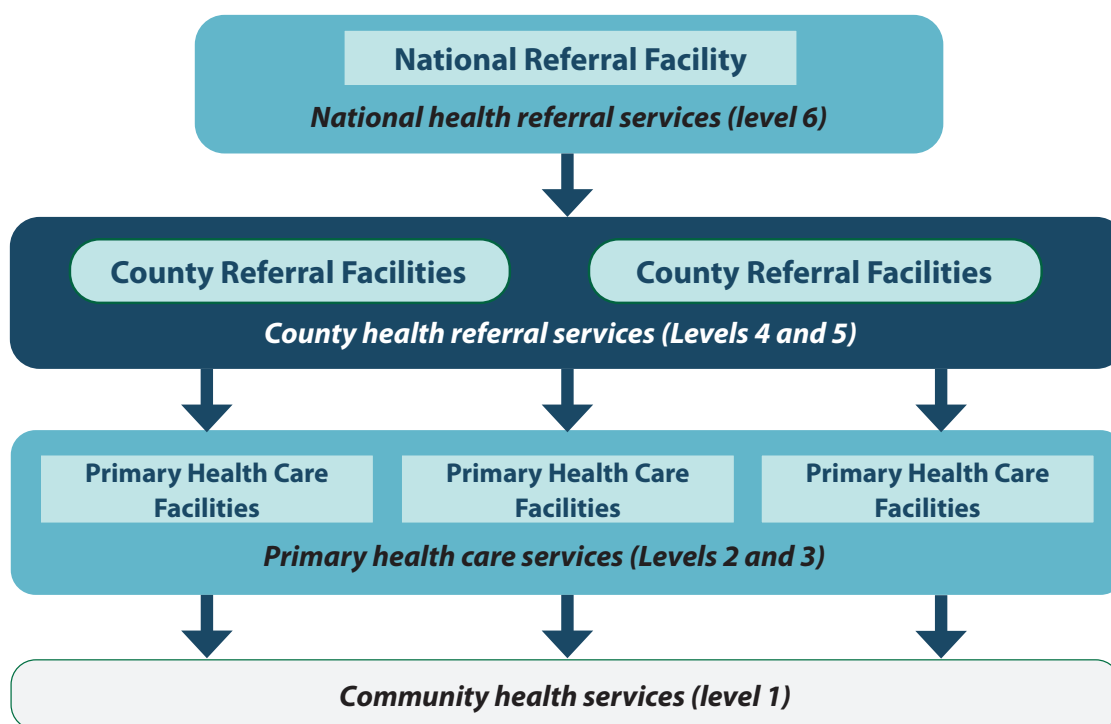


Figure 1: Kenya referral health system structure

Source; Kenya Health Sector Referral Implementation Guidelines 2014

2.3 Policy Framework for NSSSP

Kenya Health Policy 2014 -2030 is the overarching policy document that provides the long-term direction for health in the country. The policy outlines the intentions the country will take towards attaining the overall health aspirations of the people of Kenya through supporting the provision of equitable, affordable, and quality health and related services for achieving the highest attainable standards of healthcare (MOH). The general policy orientations, objectives, and goals are illustrated in Figure 2.

2.3.1 Process and Methodology

This National Surgical Strategic Plan is anchored at the operationalization of the overarching broad Kenya Health Policy 2014-2030. This NSSSP 2026 - 2031 has been developed through a participatory process and incorporates diverse inputs and views from various stakeholders. Desk reviews from relevant national and global health frameworks, evaluations of strategic plans, policies, and guidelines, including available national data were among the sources of information used to design the strategic plan.

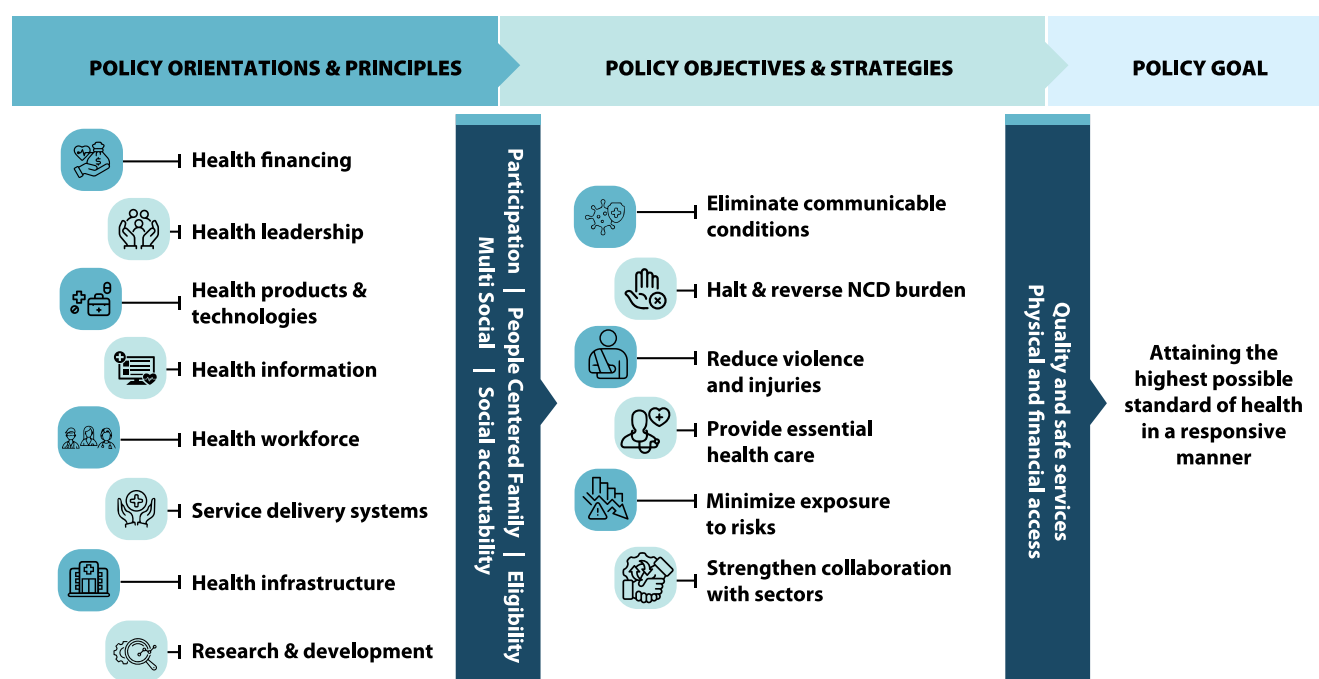


Figure 2: policy orientations, objectives, and goals

2.4 Surgical Services Country Context

The performance of Kenya's surgical system is shaped not only by national policies and external factors, but also by several internal dynamics within the health sector. These include critical challenges in human resources, infrastructure, supply chains, data systems, and referral pathways that hinder equitable access to safe surgical care. There is also growing demand for surgical services due to increased injuries and non-communicable diseases.

2.4.1 Workforce shortages and HRH maldistribution

Kenya faces significant shortages of surgical professionals^{vi}. While the country produces over 8,000 health workers annually, public sector absorption is limited, and many graduates remain unemployed or migrate abroad.^{vii} Rural counties suffer the most, with understaffing causing burnout and prolonged wait times for surgery.^{viii} Overall shortages in Kenya's health workforce are expected to include key perioperative staff with surgical workforce density still below the WHO-recommended threshold of 20 - 40 per 100,000 population^{xii}. While the recruitment of over 20,000 health workers in 2023 under the Health Labour Market Analysis (HLMA) framework may have helped ease the pressure, it did not sufficiently address the need for specialized cadres who remain critically underrepresented, especially in surgical teams^{viii}. Furthermore, significant geographic disparities persist, with underserved counties experiencing up to sevenfold differences in workforce allocation relative to their population, limiting access to essential surgical care in rural and remote areas^{xii, xi}.

In addition, there is a mismatch between training and deployment. Health workers are often deployed to facilities that lack the equipment or patient volumes needed for skill retention, creating inefficiencies in workforce utilization^{iv}.

2.4.2 Supply chain disruptions

Persistent surgical health commodity and supply chain bottlenecks in Kenya have led to stockouts of essential surgical supplies^x. Procurement lead times can stretch from 4 to 8 months, particularly for high-value surgical items. These delays disrupt elective surgeries and emergency care, especially in county hospitals^{xi}. Efforts such as e-LMIS implementation aim to streamline commodity tracking and improve accountability, but gaps remain in last-mile delivery^{vi}.

In Kenya, access to high-value surgical items, such as advanced imaging equipment (CT/MRI scanners), surgical towers, anesthesia machines, laparoscopic sets, and orthopedic implants, remains limited and unevenly distributed across counties including ENT microsurgery equipment, Fiber-optic endoscopes, laser equipment, accessories, ear sets and Operation microscope. Public sector facilities, particularly in rural and underserved areas, frequently lack these essential tools due to budget constraints, fragmented

procurement systems, and weak maintenance infrastructure. Even when procured, sustainability is compromised by inadequate user training, a lack of biomedical technicians, and unreliable supply chains for consumables. Strengthening local procurement systems and investing in surgical equipment can improve facility readiness; these are necessary to optimize the impact of these high-value investments^{xii}.

2.4.3 Inadequate infrastructure

Surgical infrastructure remains uneven across levels of care. Level 3–4 facilities in many counties lack functional theatres, sterilization units, or basic diagnostic imaging, which undermines timely care^{xiii}. A nationwide audit found that only 54% of public health facilities had reliable access to electricity, an essential requirement for safe surgery^{xiv}. Moreover, Level 4 and 5 hospitals often operate below standard due to insufficient theatre space, equipment, or staff housing, underutilized and uninstalled infrastructural equipment^{xv}. While flagship initiatives like the Managed Equipment Services (MES) program sought to address these gaps, evaluations revealed that many high-cost items were underutilized due to infrastructure mismatches and staffing shortages^{xvi}.

2.4.4 Fragmented Health Information Systems (HIS)

Multiple parallel digital platforms operate across the health sector, causing data fragmentation. Surgical indicators are inconsistently captured in the Kenya Health Information System (KHIS), impeding planning and performance management. The lack of interoperable systems also limits clinical continuity and decision-making across facilities^{xvii}. The Ministry's Kenya Health Information Systems Interoperability Framework (KHISIF) aims to harmonize data platforms and enhance surgical data collection.

2.4.5 Weak surgical referral systems

Referral mechanisms for surgical patients are often inefficient, relying heavily on informal communication and undocumented transfers^{iv}. Facility readiness at receiving hospitals is rarely assessed in advance, contributing to delays, overcrowding, and compromised outcomes^{xviii}. A review at Kenyatta National Hospital (KNH) found that while formal referrals increased following the dissemination of the guideline, most lacked referral letters, thereby limiting continuity of care^{xix}.

2.4.6 Environmental scan

An assessment of Kenya's surgical health system reveals critical internal and external dynamics that influence the development, access, quality, and sustainability of surgical services. These dynamics are grouped into Strengths, Weaknesses, Opportunities, and Threats (SWOT) to inform overall strategic directions and decision-making resource allocation.

2.4.7 SWOT Analysis

2.4.7.1 Strengths

Kenya's health system has several strengths that offer a foundation for expanding surgical care. The devolution of health services has brought healthcare closer to communities, increasing opportunities for timely surgical interventions (MOH, 2018). A dedicated surgical workforce, complemented by existing training institutions, contributes to continued professional development and service quality^{xx}.^{xxi} In addition, the regulatory environment supports standardization and patient safety, while growing awareness and community health systems improve health-seeking behaviours and referrals. In addition Kenya's Human Resources for Health Strategic documents and allied regulatory frameworks provide a structured institutional foundation for resolving perceived scope-of-practice ambiguities among overlapping perioperative workforce, progressively strengthening inter-professional cohesion, accountability, and quality of surgical care.

Table 2: Strengths of Kenya's Surgical System

Factor	Implications	Response Actions
Devolved healthcare system ⁱⁱ	Enhanced proximity and equity of service delivery	Advocate for increased sub-national funding and infrastructure upgrades
Dedicated surgical workforce ^{iv}	High-quality service delivery and professionalism	Capacity building, mentorship, and retention incentives
Regulatory frameworks	Assurance of standards and safety	Enforcement of guidelines and quality assurance mechanisms ^{iv}
Training institutions ^{vii}	Pipeline for minor surgical workforce development	Expand programs and ensure quality control

Surgical awareness ^v	Increased demand and timely health-seeking behavior	Scale community engagement and health literacy campaigns
Community health systems	Effective linkage and referrals	Strengthen integration and awareness through Community health workers for early referral

2.4.7.2 Weaknesses

Despite progress, significant systemic weaknesses continue to hinder equitable access to surgical care. These include an inadequate workforce, poor mentorship structures, limited infrastructure, and fragmented referral systems. Moreover, stockouts of surgical supplies, uncoordinated HR planning, and inconsistent data systems contribute to inefficiencies and missed opportunities for surgical scale-up. Cultural disconnects, lack of policy integration, and low community engagement also affect service utilization and outcomes.

^{iv} Growing demand for surgical services due to injuries and non-communicable diseases and limited initiatives on prevention.

Table 3: Weaknesses of Kenya's Surgical System

Factor	Implications	Response Actions
Inadequate workforce ^{vi}	Burnout, long waiting times, compromised quality	Recruit, equitably distribute, and absorb HRH
Limited infrastructure	Inaccessibility and compromised outcomes	Capital investment in surgical theaters and equipment
Poor mentorship ^{vi}	Skills transfer constraints and low morale	Establish structured mentorship programs
Fragmented referral systems	Service delays, inequity, and overload at lower facilities	Strengthen and enforce referral protocols
Data gaps and fragmentation	Poor planning and underfunding	Digitize HIS and integrate surgical dashboards ^{vi}
Inadequate funding	Inconsistent access and compromised quality ^{vi}	Advocate for protected budget lines
Uncoordinated HR planning	Workforce mismatches and inefficiencies ^{vi}	Establish a national HR observatory
Stockouts and supply chain issues	Surgical delays and cancellations	Strengthen logistics and expand EML to include surgical items
Weak integration of cultural practices	Mistrust and low utilization of surgical care	Culturally sensitive awareness campaigns
Poor facility maintenance ^{xxiii}	Downtime and service interruptions	Introduce preventive maintenance systems

2.4.7.3 Opportunities

Several emerging trends offer unique opportunities for Kenya's surgical system. The rollout of Universal Health Coverage (UHC) and Social Health Insurance Fund (SHIF) opens avenues for the inclusion of surgical packages into health financing reforms^{iv}. Investments in technology, such as telesurgery and artificial intelligence, can bridge access gaps, while public-private partnerships (PPPs) and medical tourism offer pathways for innovation, infrastructure development, and economic growth ^{xxiii, v}.

Table 4: Opportunities for Kenya's Surgical System

Factor	Implications	Response Actions
UHC and SHIF rollout	Inclusion of surgical services in the benefits package	Cost and include essential surgery in SHIF
PPPs	Resource mobilization and innovation	Formalize sustainable PPP frameworks
Technological innovation ^x	Remote care, safety, efficiency, transmission	Invest in digital surgery and AI with reliable internet access across health care facilities.
Medical tourism ^v	Economic and service delivery benefits	Create surgical centres of excellence

2.4.7.4 Threats

The system faces threats from both global and local pressures. These include industrial unrest, labour migration, and political and economic instability^{xxiv}. Rising inflation, cybersecurity risks, and natural disasters further constrain the delivery of surgical services. Moreover, cultural misconceptions, environmental trauma, and resource mismanagement may erode public trust and overwhelm already strained facilities^{iv}.

Table 5: Threats to Kenya's Surgical System

Factor	Implications	Response Actions
Industrial unrest and labour migration ^{vi}	Disrupted services, specialist shortages	Fair wages, structured career paths
Political and economic instability	Reduced sectoral funding and strategic focus	Contingency funding, long-term political commitment ^x
Climate change and disasters	Spikes in trauma-related surgeries	Build resilient emergency systems ^x and regional trauma preparedness plans
Inflation and cost of imports	Increased commodity input costs ^{iv}	Bulk procurement and promote local manufacturing EML
Cultural resistance and misinformation	Delays in surgical decision-making	Sensitization campaigns (Myths-Busting) and community engagement, and dialogues

2.4.8 PESTEL Analysis

The broader policy, economic, technological, and social environment plays a pivotal role in shaping the performance and resilience of Kenya's surgical care system. The PESTEL framework (Political, Economic, Social, Technological, Environmental, Legal, and Ethical) is used to examine the key macro-level external factors influencing the planning and implementation of surgical services in the country.

Table 6: PESTEL Analysis

Domain	Factor	Implications
Political	Devolution and UHC policy ⁱⁱ	Opportunity to prioritize surgery in sub-national budgets
	Political instability ^x	May disrupt funding, staffing, and long-term planning
Economic	Middle-income status ^{iv}	Reduced donor support for surgery-specific programs
	High inflation and costs ^{iv}	Increased price of surgical supplies and infrastructure
	Public-Private Partnership investment ^{iv}	Room for innovation, infrastructure, and training support
Social	Cultural beliefs ⁱⁱ	Affects uptake of surgical services among certain groups
	Literacy and awareness ⁱⁱ	Opportunity for demand generation and improved outcomes
Technological	Digital health and Artificial Intelligence (AI) in line with SDG ^{xxv}	Enhances reach and safety; needs digital readiness
	Cybersecurity threats	Risk of data breaches and patient information misuse
Environmental	Natural disasters and trauma ^x	Sudden increase in surgical emergencies and caseloads
Legal	Licensing and regulation	Conflicts between multiple regulatory institutions and agencies may affect the service delivery
Ethical	Data protection and human rights ⁱⁱ	Emphasis on safe, respectful, and equitable surgical care

2.5 Overall, National Surgical Services identified gaps in Kenya

Overall, from the above, the country's context analysis, landscape, environmental scan, SWOT, and PESTEL reveal gaps and challenges for surgical services that can be grouped in the Kenya's health systems building block with an aim of operationalizing the Kenya health policy 2014-2030.

2.5.1 Leadership and Governance

Leadership challenges persist in the form of fragmented referral protocols and weak integration of cultural practices into surgical service planning. This lack of coordination across health system levels undermines the efficiency and equity of surgical care, while insufficient engagement with communities hampers the acceptance and utilization of available surgical services.

2.5.2 Health Financing

Surgical care continues to be underfunded and poorly prioritized within national and county budgets. The absence of dedicated or ring-fenced financing for surgical services contributes to systemic service gaps, delayed scale-up of interventions, and heavy reliance on out-of-pocket payments by patients, thereby limiting financial protection and exacerbating health inequities.

2.5.3 Health Products and Technologies (HPTs)

Supply chain inefficiencies present significant obstacles to surgical readiness. Lengthy procurement lead times especially for high-value surgical items—combined with frequent stockouts and unreliable last-mile delivery systems, result in cancelled procedures, increased morbidity, unavailability of blood for transfusion and resource wastage. These challenges are further exacerbated by maintenance gaps and poor accountability frameworks.

2.5.4 Health Workforce

The surgical workforce in Kenya faces critical shortages and uneven distribution, particularly of specialized cadres in surgical service workforce. This is especially acute in rural counties, where long waiting times, health workforce burnout, and poor service quality prevail. Furthermore, the lack of coordinated human resource (HR) planning has led to workforce mismatches, with health workers deployed to facilities lacking the necessary infrastructure or caseloads, undermining both efficiency and job satisfaction.

2.5.5 Infrastructure

Many Levels 3 and 4 health facilities lack essential surgical infrastructure, including functional operating theatres, sterilization units, and basic diagnostic imaging. Reliable electricity and water supply are often unavailable, further compromising patient safety. These infrastructural gaps delay or deny surgical care and contribute to poor outcomes, especially in underserved communities in the counties.

2.5.6 Service Delivery

Surgical service delivery in Kenya is constrained by weak referral systems, where informal communication and lack of preparedness at receiving hospitals hinder timely surgical interventions. This results in poor continuity of care, congestion at referral facilities, and elevated mortality rates. Cultural barriers and misinformation further compound the problem, as traditional beliefs and a lack of community sensitization delay health-seeking behavior, contributing to the underutilization of surgical services and mistrust in modern healthcare. Additionally, the absence of structured mentorship and continuous professional development (CPD) programs limits skill retention among surgical teams, leading to low morale and suboptimal patient outcomes.

2.5.7 Health Information Systems, Monitoring, Evaluation & Research

Kenya's surgical information landscape is hindered by parallel and fragmented digital platforms that impede the integration of surgical indicators into the Kenya Health Information System (KHIS). This fragmentation results in weak monitoring and evaluation (M&E), poor decision-making, and underinvestment in surgical services. In addition, there is limited research and operational data to guide policy and strategic planning, contributing to misaligned investments and lost opportunities for innovation and quality improvement.

Table 7: Overall Health Systemic Gap Analysis for Surgical Services

Challenge Gaps	Description	Implications
Service Delivery		
Weak Referral Systems	Referrals are informal or undocumented; poor communication and lack of preparedness at receiving hospitals hinder timely surgical care.	Poor continuity of care, congestion at referral hospitals, and increased mortality risk.
Cultural Barriers and Misinformation	Misinformation and traditional beliefs delay health-seeking behaviors for surgical care; community sensitization is minimal.	Underutilization of surgical services and mistrust of modern healthcare.
Limited Mentorship and CPD	Lack of structured mentorship programs hinders skill retention and development among surgical teams.	Low morale and suboptimal patient outcomes.

Challenge Gaps	Description	Implications
Health Workforce		
Workforce Shortages and Maldistribution	Significant shortages of surgical providers, surgical workforce and specialized staff. Rural counties remain understaffed and underserved.	Long waiting times, burnout, and poor-quality care, especially in remote areas.
Uncoordinated HR Planning	Workforce mismatches and inefficiencies; lack of national HR observatory.	Misaligned deployment, skill wastage, and burnout in high-volume areas.
Health Financing		
Underfunding and Low Prioritization	Surgical services receive insufficient funding at the national and county levels; few ring-fenced budgets exist for surgery.	Service gaps, delays in surgical scale-up, and reliance on out-of-pocket payments.
Leadership and Governance		
Fragmented Referral Systems	Lack of coordination across levels and regions undermines referral effectiveness.	Service delays, inequity, and systemic overload.
Weak Integration of Cultural Practices	Inadequate engagement of communities in surgical service planning and delivery. Limited initiatives on prevention on injuries and non-communicable diseases	Resistance to surgical interventions and poor utilization.
Health Products & Technologies		
Supply Chain Disruptions	Delays in procurement (4–8 months), especially for high-value surgical items stockouts disrupt surgeries.	Surgical cancellations, increased morbidity, and inefficiencies in service delivery.
Stockouts and Supply Chain Issues	Frequent lack of essential items due to procurement inefficiencies and weak last-mile delivery systems.	Delays in service delivery, resource wastage, and patient harm.
Health Information Systems, Monitoring, Evaluation & Research		
Fragmented Health Information Systems	Parallel digital platforms cause data silos; surgical indicators are inconsistently captured in KHIS.	Gaps in M&E, poor decision-making, and weak accountability.
Data Gaps and Fragmentation	Weak integration of surgical indicators in KHIS limits data-driven decision-making.	Underfunding and missed planning opportunities.
Limited Evidence for Policy and Planning	Lack of implementation research and operational data on surgical service bottlenecks.	Policy gaps, misaligned investments, and missed innovation opportunities.
Infrastructure		
Inadequate Infrastructure	Many Levels 3–4 facilities lack functioning theatres, sterilization units, or basic imaging; electricity issues are widespread.	Delayed or denied care, unsafe surgery practices, and poor outcomes.

Chapter Three: Surgical Services Strategic Model

Chapter Three:

Surgical Services Strategic Model

3.1 Vision

To have a Kenya that is free from the burden of surgical conditions.

3.2 Mission

To provide the highest accessible, affordable, attainable quality of surgical services to Kenyans in a responsive manner.

3.3 Strategic

The National Surgical Strategic Plan 2026 - 2031 is built on a foundation with a vision, mission, and strategic directions. This further ensures that strategic objectives that are derived from the Situational analysis in Chapter Two inform the strategic model in Chapter Three, which further gives rise to the Key Actions under each strategic objective

3.4 Strategic objectives

1. To strengthen leadership, governance, and coordination mechanisms for effective resource mobilization, planning, and delivery of surgical services.

This objective supports the establishment of national and county-level surgical coordination platforms, policy implementation, regulatory oversight, and multisectoral collaboration. This also focuses on integrating SOTA services into national and county health budgets and health insurance schemes, while promoting innovative financing mechanisms and collaborative partnerships.

2. To build and maintain a competent, well-distributed, and motivated surgical health workforce.

This will be achieved through strategic investments in training, recruitment, deployment, retention, and continuous professional development (CPD) of surgical, anaesthesia, and peri-operative personnel.

3. To improve the availability, functionality, and maintenance of essential surgical infrastructure, equipment, and supplies.

This includes upgrading theatres, ensuring a consistent supply of surgical commodities, implementing preventive maintenance systems, and strengthening supply chain management.

4. To expand equitable access to safe, timely, and quality surgical services at all levels of the health system.

This objective aims to reduce geographic and socioeconomic disparities in surgical care by strengthening service delivery, improving referral systems, and enhancing the readiness of lower-level facilities.

5. To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making.

This involves integrating surgical indicators into national health information systems, promoting data use for planning and accountability, and investing in operational research and innovation.

3.4.1 STRATEGIC OBJECTIVE ONE: To strengthen leadership, governance, and coordination mechanisms for effective planning and delivery of surgical services.

Leadership and governance entail direction, organization, decision-making, and coordination of surgical strategies. The set Leadership and governance structures will guide the strategic direction, and development of appropriate initiatives, policies, and activities with effective oversight, regulation, motivation, and essential partnerships integrated into the surgical health system, all to achieve the desired objectives, mission, and vision.

The Governance is anchored on existing legal Frameworks and regulations for both the Public and Private Sectors. Effective leadership and governance is key to achieving the desired actions in this Strategic plan. The structures described here will provide appropriate linkages and collaborations in the health sector.

The Leadership, Governance, and Coordination, Health Financing and Resource Mobilization strategic pillars 1 and 2 are operationalized by key actions outlined below:

Pillar:1: Leadership, Governance, and Coordination

3.4.1.0 Key Actions:

3.4.1.1 Develop and operationalize national policies on emergency surgical services coordination and integrated disaster preparedness

- Develop and implement national policies on emergency surgical services coordination.
- Integrate surgical services into national and county disaster preparedness and climate change response frameworks.

3.4.1.2 Establish coordination and partnerships frameworks for surgical services

- Establish surgical service units within MOH, CHMTs, and HMTs in Levels 4 – 6 facilities.
- Institutionalize surgical representation in national and county emergency preparedness and disaster response committees.
- Allocate resources for coordination structures and operationalization.
- Establish intersectoral coordination and partnerships with academic institutions, professional societies, and private sector for surgical system strengthening.

Pillar:2 Resource Mobilization & Health Financing

3.4.1.3 Strengthen sustainable planning for financing of surgical resources

- Establish a dedicated budget line for surgical services at national and county levels.
- Increase the proportion of the healthcare budget allocated to surgical services from baseline of <10% to at least 40% by 2030*.
- Advocate for full implementation of the Facility Improvement Fund (FIF) Act in all 47 counties to ensure facility-level resource mobilization.

*Baseline of <10% is a planning assumption derived from expert consultation during the NSSSP development process.

Table 8: STRATEGIC PILLAR 1: Leadership, Governance & Coordination

Key Action	Response Initiative	Situation Analysis Gap Addressed
3.4.1.1 Develop and operationalize national policies on emergency surgical services coordination and integrated disaster preparedness	Develop and implement national policies on emergency surgical services coordination.	Fragmented referral systems: lack of coordination across levels and regions undermines effectiveness. (Weakness)
	Integrate surgical services into national and county disaster preparedness and climate change response frameworks.	Weak integration of surgical services in emergency preparedness. (Threat)
3.4.1.2 Establish coordination and partnerships frameworks for surgical services	Establish surgical service units within MOH, CHMTs, and HMTs in Levels 4–6 facilities.	Absence of surgical service units at key governance levels. (Weakness)
	Institutionalize surgical representation in national and county emergency preparedness and disaster response committees.	Limited trauma and disaster response coverage. (Threat)
	Allocate resources for coordination structures and operationalization.	Weak coordination frameworks for surgical service delivery. (Weakness)
	Establish intersectoral coordination and partnerships with academic institutions, professional societies, and private sector for surgical system strengthening.	Weak coordination frameworks for surgical service delivery. (Opportunity – PPPs, UHC)

Table 9: STRATEGIC PILLAR 2: Health Financing & Resource Mobilization

3.4.1.3 Strengthen sustainable planning for financing of surgical resources	Establish a dedicated budget line (votehead) for surgical services at national and county levels.	Underfunding and low prioritization: surgical services receive insufficient funding; no dedicated votehead. (Weakness)
	Increase the proportion of healthcare budget allocated to surgical services to at least 40% by 2030.	Lack of sustainable financing frameworks for surgical scale-up. (Weakness)
	Advocate for full implementation of the Facility Improvement Fund (FIF) Act in all 47 counties to ensure facility-level resource mobilization.	Underfunding and low prioritization: surgical services receive insufficient funding; no dedicated votehead. (PESTEL – Economic: high inflation, reduced donor funding)

3.4.2 STRATEGIC OBJECTIVE TWO: To build and maintain a competent, well-distributed, and motivated surgical health workforce.

This objective seeks to strengthen Kenya's surgical workforce by assessing staffing gaps, recruiting more specialists, and expanding training opportunities through partnerships with key institutions. It also focuses on attracting and retaining staff in underserved areas using targeted incentives and enforcing minimum staffing standards. Workforce planning will be improved through a national surgical workforce observatory and better deployment policies. Additionally, structured mentorship programmes will be institutionalised nationwide to build skills, support professional development, and improve surgical care outcomes.

This strategic objective has strategic pillars 3. Surgical workforce is operationalized by key actions outlined below:

3.4.2.0 Key Actions:

3.4.2.1 Workforce and HRH development for surgical service delivery

- Conduct a national surgical workforce needs assessment to identify gaps by cadre, facility level, and county.
- Scale up recruitment of surgical specialists, particularly for anesthesiology, peri-operative, surgical providers, and theatre staff, with priority for underserved counties.
- Expand training opportunities for surgical cadres through partnerships with universities, KMTC, COSECSA programs, and specialist fellowship programs.
- Implement targeted incentives (e.g., hardship allowances, career progression, housing) to attract and retain surgical staff in rural and underserved areas.
- Develop and enforce minimum staffing standards for surgical services at each facility level to guide equitable deployment.
- Collaborate with regulatory bodies to fast-track accreditation of new surgical training programs to address critical gaps.

3.4.2.2 Match workforce to population health needs through enhanced HRH planning and national observatories.

- Establish a national surgical workforce observatory to monitor training outputs, deployment, and distribution trends.
- Integrate surgical workforce planning into the national HRH strategic plan and county integrated development plans (CIDPs).
- Develop and implement a deployment policy to match surgical cadres to facilities based on population density, disease burden, and service capacity.
- Strengthen inter-county coordination to enable staff sharing and rotation programs to optimize existing workforce.

3.4.2.3 Institutionalize structured mentorship programs across all counties.

- Develop a national surgical mentorship framework outlining mentor-mentee roles, standards, and monitoring tools.
- Identify and train senior surgical professionals to serve as county-level mentors and trainers.
- Integrate mentorship programs into continuing professional development (CPD) requirements and licensing renewal.
- Facilitate regular skills transfer and clinical attachment rotations between national referral hospitals and county facilities.
- Monitor and evaluate the impact of mentorship programs on surgical outcomes and staff retention.

Table 10: Strategic pillar 3: Surgical workforce.

Key Action	Response Initiatives	Situation Analysis Gap Addressed
3.4.2.1 Workforce and HRH development for surgical service delivery	Conduct a national surgical workforce needs assessment to identify gaps by cadre, facility level, and county.	Workforce shortages and maldistribution: significant shortages; rural areas remain underserved.
	Scale up recruitment of surgical specialists, surgical workforce, and theatre technologists, with priority for underserved counties.	
	Expand training opportunities for surgical cadres through partnerships with universities, KMTC, COSECSA programs, and specialist fellowship programs.	
	Implement targeted incentives (e.g., hardship allowances, career progression, housing) to attract and retain surgical workforce in rural and underserved areas.	
	Collaborate with regulatory bodies to fast-track accreditation of new surgical training programs to address critical gaps.	
	Develop and enforce minimum staffing standards for surgical services at each facility level to guide equitable deployment.	Uncoordinated HR planning: workforce mismatches and inefficiencies; lack of a national HR observatory.
3.4.2.2 Match workforce to population health needs through enhanced HRH planning and national observatories	Establish a national surgical workforce observatory to monitor training outputs, deployment, and distribution trends.	Uncoordinated HR planning: workforce mismatches and inefficiencies; lack of a national HR observatory.
	Integrate surgical workforce planning into the national HRH strategic plan and county integrated development plans (CIDPs).	
	Develop and implement a deployment policy to match surgical cadres to facilities based on population density, disease burden, and service capacity.	Workforce shortages and maldistribution: inequitable distribution and deployment inefficiencies.
	Strengthen inter-county coordination to enable surgical workforce sharing and rotation programs to optimize existing workforce.	
3.4.2.3 Institutionalize structured mentorship programs across all counties	Develop a national surgical mentorship framework outlining mentor-mentee roles, standards, and monitoring tools.	Limited mentorship and CPD: lack of structured mentorship programs hinders skill development.
	Identify and train senior surgical professionals to serve as county-level mentors and trainers.	
	Integrate mentorship programs into continuing professional development (CPD) requirements and licensing renewal.	
	Facilitate regular skills transfer and clinical attachment rotations between national referral hospitals and county facilities.	
	Monitor and evaluate the impact of mentorship programs on surgical outcomes and surgical retention.	

3.4.3 STRATEGIC OBJECTIVE THREE: To improve the availability, functionality, and maintenance of essential surgical infrastructure and equipment for optimal service delivery.

This objective focuses on enhancing surgical infrastructure and equipment across Kenya to ensure quality service delivery. Key actions include conducting a national audit to identify infrastructure gaps, upgrading Level 3–4 facilities with theatres, sterilization units, and imaging, and ensuring reliable utilities like electricity and oxygen. Procurement systems will be strengthened through national

guidelines, reduced lead times, and pooled purchasing for cost efficiency. Maintenance will be enhanced by establishing preventive maintenance schedules, building biomedical engineering capacity, and creating an asset management system. Finally, innovative technologies such as telemedicine, telesurgery, and minimally invasive surgery will be integrated, with surgical teams trained and public-private partnerships leveraged for sustainability.

This strategic objective has is operationalized by pillar 4, Surgical infrastructure and equipment is operationalized by key actions outlined below:

Pillar 4: Surgical equipment

3.4.3.0 Key Actions:

3.4.3.1 Strengthen surgical infrastructure at all levels of care

- Conduct a national audit and mapping of existing surgical infrastructure to identify facility-level and county gaps.
- Upgrade and equip Level 3–4 facilities with standard operating theatres, sterilization units, and basic diagnostic imaging.
- Ensure reliable utility infrastructure (electricity, water, oxygen) in all surgical facilities through targeted investments and partnerships.

3.4.3.2 Standardize procurement and distribution of surgical equipment

- Develop and implement national guidelines for procurement, standardization, and equitable distribution of surgical equipment.
- Strengthen central and county procurement systems to reduce lead times, especially for high-value surgical items.
- Promote pooled procurement mechanisms for cost efficiency and standardization.

3.4.3.3 Enhance maintenance and sustainability of surgical equipment and infrastructure

- Establish preventive maintenance schedules and contracts for surgical equipment and infrastructure.
- Build capacity of biomedical engineering departments at national and county levels to support routine maintenance and repairs.
- Develop a national inventory and asset management system for surgical equipment tracking and accountability.

3.4.3.4 Promote innovative technologies to expand surgical capacity

- Integrate telemedicine, telesurgery, and minimally invasive surgical technologies into services, prioritizing underserved areas.
- Train surgical teams on use of new technologies, including laparoscopic sets, surgical towers, and energy devices.
- Establish public-private partnerships to support the acquisition and sustainability of innovative surgical technologies.

Pillar 4: Surgical equipment and infrastructure

Table 11: Surgical equipment and infrastructure analysis

Key Action	Response Initiative	Situation Analysis Gap Addressed
3.4.3.1 Strengthen surgical infrastructure at all levels of care	Conduct a national audit and mapping of existing surgical infrastructure to identify facility-level and county gaps.	Inadequate infrastructure: Many Levels 3–4 facilities lack functional theatres, sterilization units, or basic imaging; electricity issues are widespread. (Weakness)
	Upgrade and equip Level 3–4 facilities with standard operating theatres, sterilization units, and basic diagnostic imaging.	
	Ensure reliable utility infrastructure (electricity, water, oxygen) in all surgical facilities through targeted investments and partnerships.	
3.4.3.2 Standardize procurement and distribution of surgical equipment	Develop and implement national guidelines for procurement, standardization, and equitable distribution of surgical equipment.	Supply chain disruptions: delays in procurement (4–8 months), fragmented systems; stockouts disrupt surgeries. (Weakness, PESTEL – Economic)
	Strengthen central and county procurement systems to reduce lead times, especially for high-value surgical items.	
	Promote pooled procurement mechanisms for cost efficiency and standardization.	

Key Action	Response Initiative	Situation Analysis Gap Addressed
3.4.3.3 Enhance maintenance and sustainability of surgical equipment and infrastructure	Establish preventive maintenance schedules and contracts for surgical equipment and infrastructure.	Poor facility maintenance: downtime and service interruptions due to inadequate maintenance systems. (Weakness)
	Build the capacity of biomedical engineering departments at the national and county levels to support routine maintenance and repairs.	
	Develop a national inventory and asset management system for surgical equipment tracking and accountability.	
3.4.3.4 Promote innovative technologies to expand surgical capacity	Integrate telemedicine, telesurgery, and minimally invasive surgical technologies into services, prioritizing underserved areas.	Technological innovation: Opportunity for remote care, efficiency, and improved surgical outcomes. (Opportunity)
	Train surgical teams on the use of new technologies, including laparoscopic sets, surgical towers, and energy devices.	
	Establish public-private partnerships to support the acquisition and sustainability of innovative surgical technologies.	

3.4.4 STRATEGIC OBJECTIVE FOUR: To expand equitable access to safe, timely, and quality surgical services at all levels of the health system.

This strategy focuses on expanding equitable access to safe, timely, and quality surgical services across all levels of Kenya's health system. It aims to reduce disparities in surgical care by strengthening referral systems to ensure coordinated and timely patient transfers, improving community awareness and health-seeking behaviour to increase utilisation of surgical services, and enhancing the capacity of primary and county referral facilities to deliver essential surgical interventions closer to communities. The strategy also focuses on ensuring high standards of surgical quality and safety by developing national guidelines, conducting routine audits, and establishing facility-based safety committees. Overall, it seeks to create an integrated, efficient, and people-centred surgical service delivery system that addresses both geographic and socioeconomic barriers to surgical care.

This strategic objective has is operationalized by pillar 5 surgical service delivery by key actions outlined below:

3.4.4.0 Key Actions:

3.4.4.1 Strengthen referral systems for surgical services

- Review and update national surgical referral guidelines to standardize referral pathways.
- Implement a digital surgical referral and feedback system linking all levels of care.
- Train healthcare providers on referral protocols and emergency surgical triage.

3.4.4.2 Improve community awareness and health-seeking behaviour for surgical conditions

- Develop and implement community health education programs targeting surgical conditions, prevention of injuries and non communicable diseases and timely care-seeking.
- Integrate surgical education into CHP (community health Promoter) packages for early identification and referrals.
- Conduct culturally sensitive campaigns to address myths, misconceptions, and stigma around surgery.

3.4.4.3 Strengthen surgical service delivery capacity at primary and county referral levels

- Scale up minor surgical services at Level 3 facilities to decongest higher-level hospitals.
- Expand surgical outreach programs to underserved counties and hard-to-reach areas.
- Implement task-sharing approaches with trained non-physician health workforce for basic surgical procedures where appropriate.
- Strengthen blood transfusion services for surgical cases with an aim to ensure that safe blood is available pre and postsurgical services.

3.4.4.4 Enhance quality and safety standards for surgical care

- Develop and implement national surgical safety and quality standards to Safe Surgery guidelines.
- Conduct routine surgical quality audits and mortality reviews to inform continuous improvement.
- Establish facility-based surgical safety committees to oversee compliance and patient safety practices.

Table 12: Strategic objective four situation analysis gaps

Key Action	Response Initiative	Situation Analysis Gap Addressed
3.4.4.1 Strengthen referral systems for surgical services	Review and update national surgical referral guidelines to standardize referral pathways.	Weak referral systems: referrals are informal or undocumented; poor communication and lack of preparedness at receiving hospitals hinder timely surgical care. (Weakness)
	Implement a digital surgical referral and feedback system linking all levels of care.	
	Train healthcare providers on referral protocols and emergency surgical triage.	
3.4.4.2 Improve community awareness and health-seeking behaviour for surgical conditions	Develop and implement community health education programs targeting surgical conditions and timely care-seeking.	Cultural barriers and misinformation: misinformation and traditional beliefs delay health-seeking behaviors for surgical care; community sensitization is minimal. (Weakness, PESTEL – Social)
	Integrate surgical education into CHV (community health volunteer) packages for early identification and referrals.	
	Conduct culturally sensitive campaigns to address myths, misconceptions, and stigma around surgery.	
3.4.4.3 Strengthen surgical service delivery capacity at primary and county referral levels	Scale up minor surgical services at Level 3 facilities to decongest higher-level hospitals.	Inadequate infrastructure and service bottlenecks: concentration of surgical services at higher-level facilities leading to bottlenecks, delays, and high mortality. (Weakness, Opportunity – UHC rollout)
	Expand surgical outreach programs to underserved counties and hard-to-reach areas.	
	Implement task-sharing approaches with trained non specialized workforce for basic surgical procedures where appropriate.	
3.4.4.4 Enhance quality and safety standards for surgical care	Develop and implement national surgical safety and quality standards aligned to WHO Safe Surgery guidelines.	Gaps in surgical safety and quality standards; compromised outcomes due to unstandardized practices. (Weakness)
	Conduct routine surgical quality audits and mortality reviews to inform continuous improvement.	
	Establish facility-based surgical safety committees to oversee compliance and patient safety practices.	

3.4.5 STRATEGIC OBJECTIVE FIVE: To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making.

Focuses on strengthening Kenya's surgical health information systems, monitoring, evaluation, and research to enable evidence-based decision-making. It aims to integrate comprehensive surgical indicators into national health information systems to improve data capture, quality, and utilization. This includes developing standardized tools, training staff, and establishing data dashboards for performance monitoring. The objective also aims to enhance monitoring, evaluation, and learning by implementing a surgical monitoring and evaluation framework, conducting mid-term and end-term evaluations, and institutionalizing facility assessments to track quality and equity. Furthermore, it promotes operational research and innovation by developing a national surgical research agenda, fostering partnerships with academic and research institutions, and scaling up proven innovative surgical technologies and techniques. Overall, this objective ensures that planning, resource allocation, and service delivery for surgical care are informed by accurate data, robust evaluation, and continuous learning to drive quality improvement and innovation.

The strategic objective is operationalized under pillar 6, which deals with Monitoring, Evaluation, Research, Learning, and HIS

3.4.5.0 Key Actions:**3.4.5.1 Strengthen integration of surgical indicators into national health information systems**

- Review and update KHIS to include comprehensive surgical indicators across all levels of care.
- Develop standardized data collection tools and reporting templates for surgical services.
- Identify and train health facility staff on surgical data capture, reporting, and use for decision-making.

3.4.5.2 Improve surgical data quality, analysis, and use

- Conduct regular data quality audits for surgical indicators at facility, county, and national levels.
- Establish surgical data dashboards for performance monitoring and decision-making.
- Build capacity of MOH and county teams in surgical data analysis and interpretation.

3.4.5.3 Strengthen surgical monitoring, evaluation, and learning systems

- Develop and implement an M&E framework for surgical services aligned with national health sector frameworks.
- Conduct mid-term and end-term evaluations of surgical strategic plan implementation.
- Institutionalize periodic surgical facility assessments to track readiness, quality, and equity of services.

3.4.5.4 Promote operational research and innovation in surgical care

- Establish a national surgical research agenda focusing on service delivery, outcomes, and cost-effectiveness.
- Facilitate partnerships with academic and research institutions for implementation research on surgical interventions.
- Promote adoption and scale-up of innovative surgical technologies and techniques based on evidence.

Table 13: Strategic objective five situation analysis gaps

Key Action	Response Initiative	Situation Analysis Gap Addressed
3.4.5.1 Strengthen integration of surgical indicators into national health information systems	Review and update KHIS to include comprehensive surgical indicators across all levels of care.	Fragmented health information systems: parallel digital platforms cause data silos; surgical indicators inconsistently captured in KHIS. (Weakness) Data gaps and fragmentation limit data-driven decision-making. (Weakness)
	Develop standardized data collection tools and reporting templates for surgical services.	
	Identify and train health facility staff on surgical data capture, reporting, and use for decision-making.	
3.4.5.2 Improve surgical data quality, analysis, and use	Conduct regular data quality audits for surgical indicators at facility, county, and national levels.	Fragmented health information systems leading to poor M&E and weak accountability. (Weakness) Data gaps and fragmentation limit data-driven decision-making. (Weakness)
	Establish surgical data dashboards for performance monitoring and decision-making.	
	Build capacity of MOH and county teams in surgical data analysis and interpretation.	
3.4.5.3 Strengthen surgical monitoring, evaluation, and learning systems	Develop and implement an M&E framework for surgical services aligned with national health sector frameworks.	Limited evidence for policy and planning due to lack of implementation research and operational data. (Weakness) Policy gaps and misaligned investments due to weak M&E systems. (Weakness)
	Conduct mid-term and end-term evaluations of surgical strategic plan implementation.	
	Institutionalize periodic surgical facility assessments to track readiness, quality, and equity of services.	
3.4.5.4 Promote operational research and innovation in surgical care	Establish a national surgical research agenda focusing on service delivery, outcomes, and cost-effectiveness.	Limited evidence for policy and planning due to lack of implementation research and operational data. (Weakness) Missed opportunities for innovation and quality improvement due to limited research. (Weakness) Limited innovation uptake and operational research for surgical service delivery improvement. (Opportunity – Technological Innovation)
	Facilitate partnerships with academic and research institutions for implementation research on surgical interventions.	
	Promote adoption and scale-up of innovative surgical technologies and techniques based on evidence.	

Chapter Four: Implementation & Co-ordination Framework

Chapter Four: Implementation & Co-ordination Framework

A multisectoral approach involving all stakeholders is necessary for the successful implementation of various aspects of this plan. The National government and county governments, international organizations, development partners, non-governmental organizations, professional bodies, Faith and community-based organizations and communities all share responsibilities in ensuring implementation of this Strategic plan.

4.1 Roles and Responsibilities of Various Surgical Services Stakeholders

Table 14: Responsibilities of various Stakeholders

Stakeholders	Roles and Responsibilities
National Government	• Provide an enabling environment for implementing key Actions in this plan. • Allocate necessary resources using existing national initiatives for the implementation of the strategy. • Through regulatory bodies, provide regulatory services to maintain quality of surgical care. • Ensure regular monitoring and evaluation of progress made by stakeholders. • Engage the private sector, NGOs, FBOs, and CBOs operating at different levels of health care through monitoring and coordination of their activities. • Mobilize and provide technical and financial support for the planning, implementation, monitoring, and evaluation. • Recognize the need, strengthen rehabilitation services, and train personnel. • Establish a national and county surgical coordination framework .
County Governments	• To implement the National Surgical Strategic plan and Surgical Guidelines. • To integrate the Key Actions in this NSSSP Plan into the county-integrated development plan (CIDP). • To identify and appoint Surgical focal persons.
Development Partners	• Place surgical services on the global health agenda. • Advocate for more resources for priority surgical services. • Support national and regional capacity building of policy and decision-makers on this plan. • Support social mobilization activities to promote appropriate surgical practices. • Support the monitoring and evaluation of the implementation of the surgical services strategic plan.
Private Sector, NGOs, FBOs, CBOs	• Participate in the provision of surgical services. • Provide their members with accurate information on Surgical services. • Provide community-based early referrals and support . • Advocate for early surgical services local, national, and international levels.
Education, Training and Research Institutions	• Review and integrate Current modern surgical methods and services into the existing curricula in their respective institutions. • Train competent and skilled human resources for quality surgical services. • Support the County government in ensuring the maintenance of quality surgical services. • To regularly conduct operations and outcomes research and disseminate findings to all stakeholders. • To support the health sector at the county level in the translation of research findings into programming and service delivery.
Professional Associations	• Collaborate with the Ministry of Health in the following: • Provide surgical health services. • Monitor surgical service provision. • Monitor surgical-related diseases by including the establishment of registries. • Conduct research and share findings to inform policy.
Individuals, Families and Communities	• Individuals, parents, and caregivers are of utmost importance as they have a direct responsibility over their health. They therefore need to: • Observe promote preventive and health care practices that in the long run avert surgical procedures. • Timely seek health care. • Comply with treatment and advice from health care workers. • Participate in awareness creation on positive health care practices. • Advocate for resources. • Hold their leaders accountable and demand for surgical services.
Media	• Advocacy and Communication.

4.2 Coordination management and governance arrangements

The coordination structure illustrated in Figure 3 outlines a hierarchical and collaborative coordination governance structure with the aim of overseeing the implementation of the National Surgical Services Strategic Plan (NSSSP) in Kenya. This mechanism ensures clarity of roles, promotes accountability, and fosters alignment between national policy direction and local service delivery.

- At the Apex, the Surgical Services Multisectoral Advisory and Steering Committee TWG (DG Level) will provide strategic leadership, advisory and high-level oversight for surgical care initiatives, multisectoral engagement and ensuring political commitment and resource alignment for the implementation of the NSSSP.
- It will also provide administrative and strategic alignment (PS Level) ensuring that decisions emanating from the highest governance level are translated into operational plans, budgets, and time-bound implementation actions across national and county structures.
- The committee will offer technical guidance, ensures coherence with broader health sector goals, and provides the analytical and programmatic interface between high-level political direction and the National Surgical Services Secretariat responsible for day-to-day coordination and implementation of the strategic plan.
- At the core of day-to-day operations is the National Surgical Services Secretariat, which is responsible for managing and coordinating the implementation of the strategic plan across all levels. It will serve as the link between national leadership and sub-national structures.
- At the county level, the County Surgical Services Technical Working Groups (TWGs), lead and supported by designated Surgical Services Focal Persons, will translate national strategies into county-specific plans, monitor implementation, and provide feedback for continuous improvement.
- At the frontline of delivery, the Sub-County to Ward-level Surgical Multidisciplinary Teams (MDTs) will implement surgical services within communities, ensuring the reach and quality of care in accordance with national surgical guidelines

This multi-tiered coordination framework ensures a coherent, coordinated implementation of actions outlined in this surgical strategic plan. Furthermore it will allow a participatory and accountable approach to surgical systems strengthening across the country.

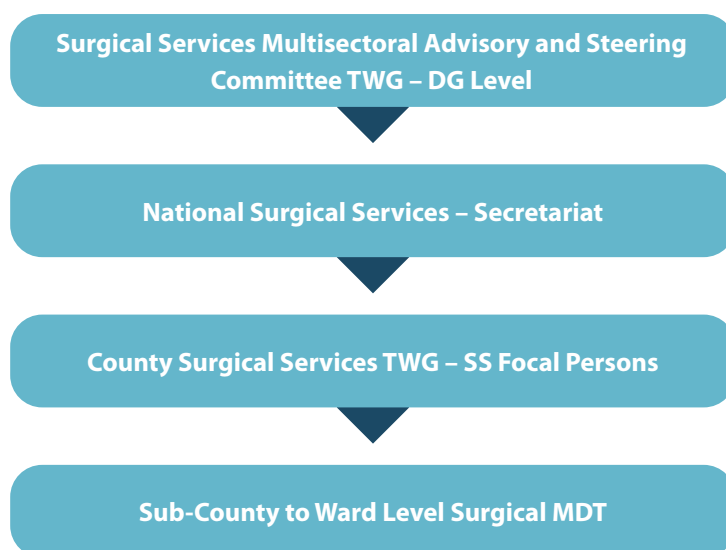


Figure 3: National and county surgical governance & coordination framework

The specific composition, membership criteria, quorum requirements, and sectoral representation of each Coordinating Committee, Steering Committee, and Technical Working Group shall be established and determined through the development of a dedicated Surgical Services Coordination Framework, to be finalised as a priority deliverable within Year One of NSSSP implementation.

Chapter Five: Monitoring & Evaluation Framework

Chapter Five: Monitoring & Evaluation Framework

The Monitoring and Evaluation (M&E) process will utilize an action research approach, which involves iterative cycles of planning, implementation, and reflection. This method is particularly effective as it allows M&E to be embedded within the ongoing activities and implementation of each Key Action in this Strategic Plan.

This will be collected and documented on a monthly, quarterly, and annual basis to monitor surgical health indicators across all counties. Regular performance review meetings and workshops will be convened by the National, County and Sub-County Surgical Services Units. The following M&E indicators will be monitored to assess progress under each strategic objective and respective strategic pillars:

Table 15: Monitoring and evaluation framework

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
Strategic Objective 1: To strengthen leadership, governance, and coordination mechanisms for effective planning and delivery of surgical services													
Strategic Pillar 1: Leadership, Governance & Coordination													
3.4.1.1 Develop and operationalize national policies on emergency surgical services coordination and integrated disaster preparedness	Develop and implement national policies on emergency surgical services coordination	No. of policies developed and implemented	% of surgical facilities using the national emergency coordination policy	0	80%	Policy documents, facility reports	Annually	MOH-SDU	10%	30%	50%	70%	80%
	Integrate surgical services into national and county disaster preparedness and climate change response frameworks	Number of county disaster plans with integrated surgical services	% of counties with integrated disaster plans	TBD	70%	Disaster response plans, county health reports	Annually	MOH-DDMU, County HMTs	10%	25%	40%	55%	70%
3.4.1.2 Establish coordination and partnerships frameworks for surgical services	Establish surgical service units within MOH, CHMTs, and HMTs in Levels 4–6 facilities	Number of surgical units established	% of counties and Level 4–6 facilities with surgical units	0	47	HRH records, MOH organogram, CHMT structures	Bi-annually	MOH-SDU, County Directors of Health	10	20	30	40	47
	Institutionalize surgical representation in national and county emergency preparedness and disaster response committees	Number of committees with surgical reps	% of emergency response plans with surgical representation	TBD	70%	Emergency committee minutes, disaster planning reports	Annually	MOH-DDMU, SDU	15%	30%	45%	60%	70%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base Line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
	Allocate resources for coordination structures and operationalization	Amount of budget allocated to surgical coordination	% of planned coordination activities implemented	0	80%	County and national budget reports	Annually	MOH, County Treasuries	10%	30%	50%	70%	80%
	Establish intersectoral coordination and partnerships with academia, societies, private sector	Number of MOUs/ partnerships signed	% of surgical strengthening initiatives involving multiple sectors	2	25	Partnership records, academic/NGO project reports	Bi-annually	MOH-SDU, KCCB, PSK,SSK, Kenya Orthopaedic Association	5	10	15	20	25
Strategic pillar 2: Health Financing & Resource Mobilization													
3.4.1.3 Strengthen sustainable planning for financing of surgical resources	Establish a dedicated budget line for surgical services at national and county levels	Number of counties with a dedicated surgical budget line	% of counties with ring-fenced budget lines for surgery	0	47	Budget documents, county finance bills	Annually	County Treasuries, MOH-SDU	10	20	30	40	47
	Increase the proportion of the healthcare budget allocated to surgical services to at least 40% by 2030	% increase in surgical health budget allocation	Proportion of surgical services funded from county health budgets	<10%	40%	County budgets, MTEF reports	Annually	MOH, County Health Departments	15%	20%	25%	30%	40%
	Advocate for full implementation of the Facility Improvement Fund (FIF) Act	% of total county and national health budget allocated to surgical services.	% of counties using FIF for surgical service improvement	TBD	40%	County/ national budget documents, MTEF reports, FIF utilization reports, county treasury financial statements. Revenue utilization reports	Annually	MOH, County Treasuries	15%	20%	25%	30%	40%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
Strategic Objective 2: To develop a competent, equitably distributed, and motivated surgical workforce													
Strategic Pillar 3: Surgical Health Workforce													
3.4.2.1 Conduct national surgical workforce needs assessment and planning	Conduct a national surgical workforce mapping and gap analysis	Report on existing surgical workforce gaps	% of workforce needs addressed	TBD	100% of counties assessed	HRH records, workforce assessment reports	Biennially	MOH HR Unit, Training institutions	20%	50%	70%	90%	100%
	Develop a national surgical HRH strategic plan	Surgical HRH strategic plan validated	National HRH plan implementation rate	No	Yes	Planning records	Every 3 years	MOH, TWG	-	Yes	-	-	-
3.4.2.2 Build capacity of surgical training institutions	Update curricula to align with WHO standards and surgical priorities	Number of training institutions with revised curricula	% of training institutions implementing updated curricula	TBD	80%	Accreditation body reports, institutional audits	Annually	MOH, CUE, KMTC	20%	40%	60%	70%	80%
	Recruit and equip trainers and surgical faculty	Number of new trainers recruited and oriented	Trainer-to-student ratio in surgical training	TBD	01:10	HR reports, institutional data	Annually	KMTC, Universities	20%	40%	60%	80%	100%
3.4.2.3 Strengthen CPD and mentorship for surgical providers	Develop and roll out a national surgical mentorship and CPD program	Number of mentorship programs implemented	% of surgical workforce accessing CPD or mentorship	TBD	80%	CPD records, HRHIS	Semi-annually	MOH, Regulatory Boards	20%	30%	50%	70%	80%
3.4.2.4 Improve distribution and retention of surgical workforce	Deploy surgical personnel equitably using a needs-based approach	% of underserved counties with surgical teams deployed	Counties with full surgical HRH teams	TBD	47 counties	Deployment logs, HRIS	Annually	MOH HRM, PSC, Counties	10	20	30	40	47
	Institutionalize incentive packages for retention	Number of facilities with non-monetary retention schemes	% reduction in annual surgical workforce/staff attrition rate	TBD	50% reduction	HRH exit interviews, retention survey	Annually	MOH, PSC	10%	20%	30%	40%	50%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
Strategic Objective 3: To improve the availability, functionality, and maintenance of essential surgical infrastructure and equipment for optimal service delivery													
Strategic Pillar 4: Surgical Infrastructure, Equipment & Technologies													
3.4.3.1 Strengthen surgical infrastructure at all levels of care	Conduct a national audit and mapping of surgical infrastructure	Number of facilities mapped	Proportion of counties with surgical infrastructure plans	TBD	100%	National/ County reports, Mapping audit	Annually	MOH, County Health Departments	20%	40%	60%	80%	100%
	Upgrade and equip Level 3–4 facilities with standard surgical infrastructure	Number of facilities upgraded	Proportion of Level 3–4 facilities equipped with functional OTs, sterilization units	TBD	80%	Facility x reports	Annually	County Gov'ts, MOH	20%	30%	50%	70%	80%
	Ensure reliable utility infrastructure in all surgical facilities	% facilities with essential utilities (water, power, oxygen)	Proportion of surgical facilities with uninterrupted utility support	TBD	90%	Infrastructure and utility reports	Bi-Annually	MoH, PPPs	40%	55%	70%	80%	90%
3.4.3.2 Standardize procurement and distribution of surgical equipment	Develop and implement national equipment procurement guidelines	Availability of standardized surgical equipment list	Proportion of counties using standardized procurement frameworks	TBD	80%	Procurement reports	Annually	MOH, KEMSA	30%	50%	60%	70%	80%
	Promote pooled procurement and reduce lead times	Number of counties participating in pooled procurement	Reduction in procurement lead times for surgical equipment	TBD	60%	KEMSA data, County procurement plans	Bi-Annually	KEMSA, County Procurement Units	20%	30%	40%	50%	60%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
3.4.3.3 Enhance maintenance and sustainability of surgical equipment	Establish preventive maintenance schedules	Number of facilities with maintenance contracts	Proportion of surgical equipment under routine maintenance	TBD	70%	Biomedical engineering reports	Quarterly	MOH, County Biomedical Units	20%	35%	50%	60%	70%
	Build capacity of biomedical engineering departments	Number of engineers trained	Ratio of surgical facilities with on-site biomedical support	TBD	80%	HR records, training reports	Annually	MOH, KMTC, TVETs	20%	40%	60%	70%	80%
	Integrate telemedicine and laparoscopic technologies	Number of facilities using tele-surgical technologies	Proportion of surgical procedures supported by tech platforms	TBD	50%	Digital health systems, facility service reports	Bi-Annually	MOH, ICT Authority, PPPs	10%	20%	30%	40%	50%
3.4.3.4 Promote innovative technologies to expand surgical capacity	Train surgical teams on use of new technologies	Number of surgical teams trained	Increase in surgeries conducted using modern technologies	TBD	60%	Training records, facility operation logs	Annually	MOH, Council of Health Professions	20%	30%	40%	50%	60%
Strategic Objective 4: To expand equitable access to safe, timely, and quality surgical services at all levels of the health system													
Strategic Pillar 5: Surgical service delivery													
3.4.4.1 Strengthen referral systems for surgical services	Review and update national surgical referral guidelines	Number of updated referral guidelines disseminated	Proportion of facilities using updated referral guidelines	TBD	80%	MOH Reports	Annually	MOH	20%	40%	60%	70%	80%
	Implement digital surgical referral and feedback system	Number of facilities linked through digital referral system	Proportion of referred cases managed through digital system	TBD	70%	Digital Referral Logs	Quarterly	MOH ICT	15%	30%	50%	60%	70%
	Train providers on referral protocols and triage	Number of providers trained on surgical referrals	Proportion of providers applying triage protocols	TBD	80%	Training Reports	Annually	County Health Dept	20%	40%	60%	70%	80%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
3.4.4.2 Improve community awareness and health-seeking behaviour for surgical conditions	Develop and implement community education programs	Number of education programs implemented	Community awareness score on surgical conditions	TBD	80%	Program Reports	Annually	MOH Health Promotion	20%	40%	60%	70%	80%
	Integrate surgical education into CHP packages	Number of CHPs trained on surgical identification	Proportion of CHPs referring surgical cases	TBD	70%	CHP Activity Logs	Annually	CHP Units	15%	30%	50%	60%	70%
	Culturally sensitive campaigns on surgical myths	Number of campaigns conducted	Reduction in stigma-related delays in surgery	TBD	80%	Campaign Reports	Annually	Health Promotion Unit	20%	40%	60%	70%	80%
3.4.4.3 Strengthen surgical service delivery capacity at primary and county referral levels	Scale up minor surgical services at Level 3	Number of Level 3 facilities offering minor surgeries	Proportion of minor surgeries done at Level 3	TBD	70%	Facility Data	Bi-Annually	County Gov	20%	40%	60%	70%	70%
	Expand outreach to underserved and hard-to-reach areas	Number of outreach activities conducted	Proportion of counties with outreach programs	TBD	75%	Outreach Records	Quarterly	County Gov	15%	35%	55%	70%	75%
	Implement task-sharing for basic procedures	Number of non-physician clinicians trained	Increase in minor surgeries by non-physician clinicians	TBD	60%	Training Reports	Annually	MOH HRH Unit	10%	30%	50%	60%	60%
3.4.4.4 Enhance quality and safety standards for surgical care	Develop and implement surgical safety standards	Number of safety standards implemented	Compliance rate with WHO surgical safety standards	TBD	80%	Audit Reports	Annually	MOH QAU	20%	40%	60%	70%	80%
	Conduct routine surgical quality audits	Number of quality audits conducted	Reduction in surgical adverse outcomes	TBD	70%	Surgical Reports	Bi-Annually	QAU/ Mortality Review Boards	15%	35%	55%	70%	70%
	Establish surgical safety committees	Number of committees formed	Proportion of facilities with active safety committees	TBD	80%	Facility Reports	Annually	Facility MDTs	20%	40%	60%	70%	80%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
Strategic Objective 5: To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making													
Strategic Pillar 6: Monitoring Evaluation Research & Health Information Systems													
3.4.5.1 Strengthen integration of surgical indicators into national health information systems	Review and update KHIS to include comprehensive surgical indicators across all levels of care.	Number of KHIS versions updated to include surgical indicators	Proportion of facilities using updated KHIS	TBD	80%	KHIS updates	Annually	MOH HMIS Unit	20%	40%	60%	70%	80%
	Develop standardized data collection tools and reporting templates for surgical services.	Number of standardized tools and templates developed	Proportion of facilities using standardized tools	TBD	80%	MOH reports	Annually	MOH HMIS Unit	20%	40%	60%	75%	80%
	Train health facility staff on surgical data capture, reporting, and use for decision-making.	Number of staff trained on surgical data reporting and use	Proportion of facilities reporting surgical data accurately	TBD	80%	Training reports	Annually	County Health Depts	10%	30%	50%	70%	80%
	Conduct regular data quality audits for surgical indicators at facility, county, and national levels.	Number of surgical data quality audits conducted	Proportion of facilities with improved data quality scores	TBD	80%	Audit reports	Annually	MOH M&E Unit	10%	30%	50%	70%	80%
3.4.5.2 Improve surgical data quality, analysis, and use	Establish surgical data dashboards for performance monitoring and decision-making.	Number of dashboards established and functional	Proportion of counties using dashboards for decision-making	TBD	80%	Dashboard system logs	Annually	MOH HIS Unit	15%	35%	55%	70%	80%
	Build capacity of MOH and county teams in surgical data analysis and interpretation.	Number of personnel trained in data analysis and interpretation	Improvement in decision-making based on surgical data	TBD	80%	Training and evaluation reports	Annually	MOH M&E Unit	10%	30%	50%	70%	80%

Key Action	Response Initiative/ Activity	Process Indicator (Output)	Performance Indicator (Outcome)	Base line	Target by Yr 5	Data Sources	Frequency of Data Collection	Lead Entity	Target FY1	Target FY2	Target FY3	Target FY4	Target FY5
3.4.5.3 Strengthen surgical monitoring, evaluation, and learning systems	Develop and implement an M&E framework for surgical services aligned with national health sector frameworks.	Existence of M&E framework for surgical services	Proportion of MOH/county plans aligned to M&E framework	TBD	80%	Policy and planning documents	Annually	MOH Planning	15%	30%	50%	70%	80%
	Conduct mid-term and end-term evaluations of surgical strategic plan implementation.	Number of evaluations conducted	Change in strategic plan implementation effectiveness	TBD	80%	Evaluation reports	Annually	MOH M&E Unit	10%	30%	50%	70%	80%
	Institutionalize periodic surgical facility assessments to track readiness, quality, and equity of services.	Number of assessments institutionalized	Improvement in surgical facility readiness and service quality	TBD	80%	Assessment reports	Annually	County Health Depts	10%	30%	50%	70%	80%
	Establish a national surgical research agenda focusing on service delivery, outcomes, and cost-effectiveness.	Existence of national surgical research agenda	Proportion of surgical research agenda implemented	TBD	80%	Research policy documents	Annually	MOH Research Unit	10%	20%	40%	60%	80%
3.4.5.4 Promote operational research and innovation in surgical care													

Chapter Six: Financial Requirements, Costing & Budgeting

Chapter Six: Financial Requirements, Costing & Budgeting

6.1 Strategic costing

Strategic costing is a process of determining, in monetary terms, the value of inputs that are required to generate a particular output. For this strategic plan, it involved estimating the quantity of inputs required. This involved a quantitative process, estimating both operational costs and capital costs of the Country's first SSSP. The process ensured that the value of resources required to deliver the actions under each strategic objective is effective and affordable. The process allocated costs of inputs based on each intervention and activity to achieve the strategic objective. The costing identified cost drivers and all costs of activities are traced to Key Actions and strategic pillars.

This chapter describes in detail the level of resource requirements for the NSSSP period, the available resources, and the gap between what is anticipated and what is required.

6.2 Costing and budgeting

The One Health International tool was utilized to define most of the tenets and cost approaches. Costing and budgeting were conducted factoring in inflation, with expert consultation from the health systems strengthening specialist, the monitoring and evaluation team, the health economist, the Surgical specialists, Health systems specialists and Surgical Society of Kenya.

This brought forward the normative unit costs of all the Surgical services by cost centre's, level of care, and for each of the five years. These methods consequently allowed for the estimation of the budget for the years under consideration from both the unit costs established with projected inflation costs as well as Health Systems costs and operationalization costs of this plan. This led to summaries of financial requirements.

6.2.1 Financial Costing and Budgeting Approach

This NSSSP also applied result-based costing to estimate the total resources required for implementing the action plan over five years. Specifically, the approach used was Activity-Based Costing (ABC), a bottom-up, input-based method that allocates costs to specific activities based on the inputs they consume. This included the Identification of activities necessary to achieve each expected output under each strategic pillar. Determination of input types (e.g., labour, venue, materials) required for each activity. Quantification of inputs based on unit cost, quantity, and frequency. Calculation of total input costs, which were summed to determine the cost of each activity; Aggregation of activity costs to derive output costs, then objective costs, and finally the total budget.

This approach enabled a detailed and accurate estimation of resource needs, tracing all input costs directly to their respective strategic objectives eventually the overall financial resource requirement budget for implementing the NSSSP.

6.2.2 Total financial resource requirements

The cost over time for all the Key Actions provides important details that are necessary for Leaders in the county, together with development partners, to discuss priorities and decide on effective resource optimization.

The strategic objectives provided Key Actions to be executed within the next five years. Based on the costs for the strategic plan computation, NSSSP to fully actualize, Ksh 33.7 billion as shown in Table 16 cumulatively across the 5 years required. With more details in Table 17. Further 3 below annual breakdown of cost requirement (s) is also presented.

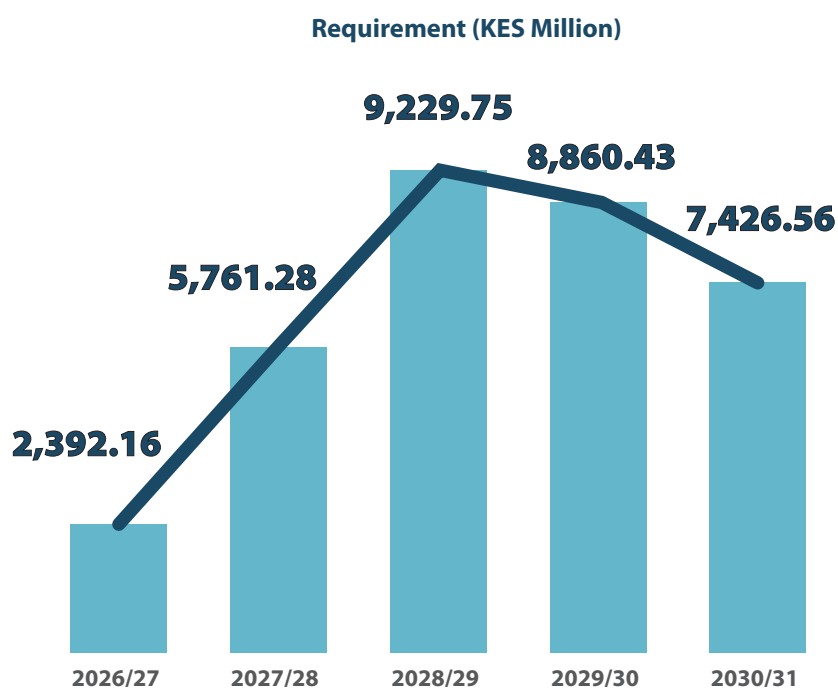


Figure 4: Annual financial NSSSP Requirement

6.3 Financial per strategic objective Requirements

According to the costing estimates, the NSSSP requires an investment worth Ksh 33.7 billion over the plan period. This has further been disaggregated by strategic objectives as shown in Table 16

Table 16: Financial requirement disaggregated by strategic objective (KES in millions)

Strategic Objectives (SO)	Year 1	Year 2	Year 3	Year 4	Year 5	Totals
SO1: To strengthen leadership, governance, and coordination mechanisms for effective planning and delivery of surgical services	42.03	113.83	195.5	163.38	114.54	653.68
SO2: To develop a competent, equitably distributed, and motivated surgical workforce	19.34	261.51	155.61	36.46	35.2	508.12
SO3: To improve the availability, functionality, and maintenance of essential surgical infrastructure and equipment for optimal service delivery	437.66	750.66	1158.35	1536.63	1401.85	5285.15
SO4: To expand equitable access to safe, timely, and quality surgical services at all levels of the health system.	1761.21	4238.34	6221.25	6425.98	5556.86	24228.1
SO5: To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making	131.92	396.95	1499.04	697.98	318.12	3044.01
Grand Total	2392.16	5761.28	9229.75	8860.43	7426.56	33719.0

6.3.1 Proportionate requirements

The chart in Figure 5 illustrates the proportionate required cost allocation of the KES 33.7 billion budget across five Surgical Services strategic objectives. Over two-thirds of the total funding (72%) is allocated to expanding equitable access to safe, timely, and quality surgical services (SO4), highlighting Kenya's strategic focus on strengthening service delivery across all levels of the health system. This substantial investment reflects the country's commitment to addressing geographic and socioeconomic barriers to surgical care.

This is followed by infrastructure and equipment improvements (SO3), which account for 16% of the total budget. These resources are aimed at enhancing the availability and functionality of critical surgical infrastructure necessary for optimal service delivery.

Strategic investments in surgical health information systems (SO5) represent 9% of the budget, reinforcing the importance of data-driven decision-making, monitoring, and research. Meanwhile, leadership, governance, and coordination (SO1) and workforce development (SO2) receive 2% each, signaling a targeted but modest investment in foundational systems and human resources.

Overall, the distribution of resources reflects a deliberate emphasis on improving access and service quality, while laying the groundwork for sustainable, efficient, and evidence-informed surgical care in Kenya.

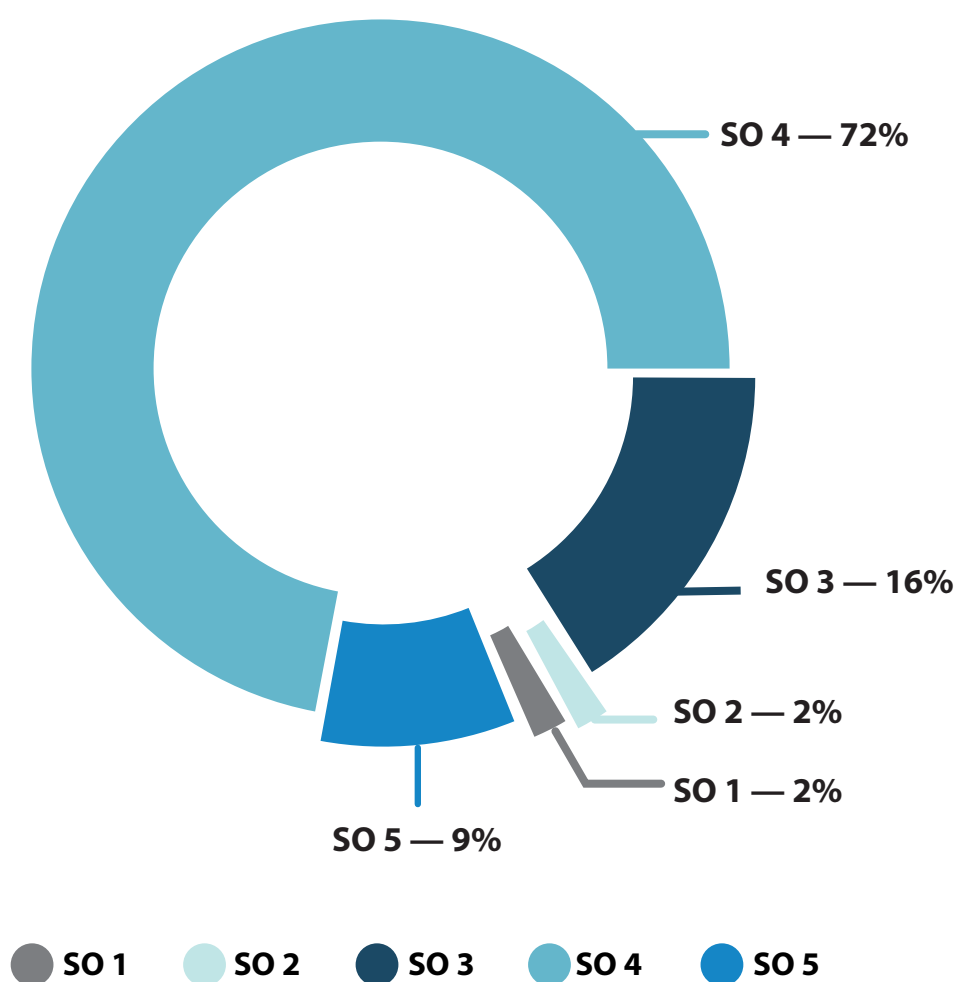


Figure 5: proportionate required allocation

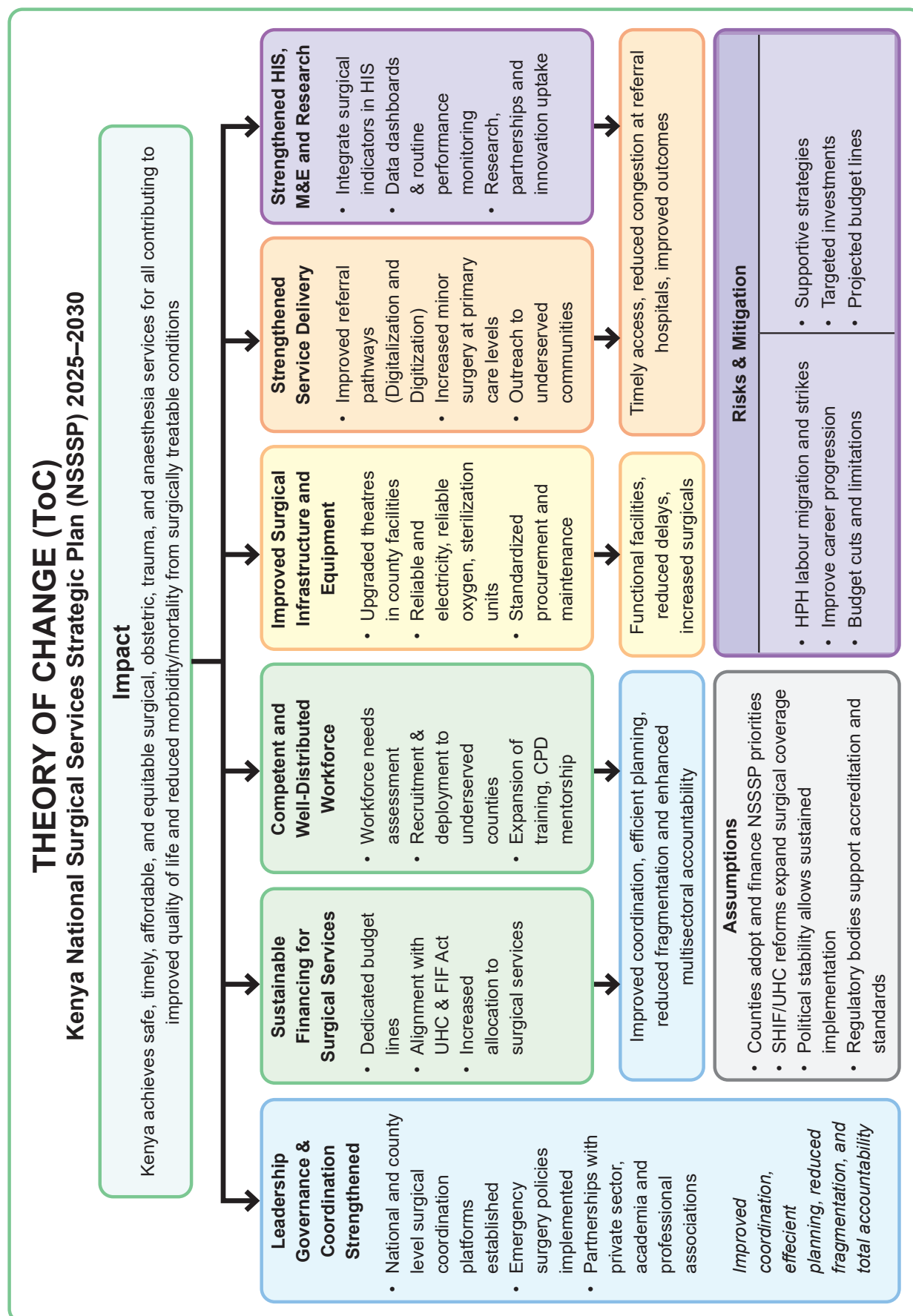
Table 17: NSSSP implementation five-year financial requirements (KES)

Strategic objective	Strategic Pillar	Key Action	Year 1	Year 2	Year 3	Year 4	Year 5	Total
1. To strengthen leadership, governance, and coordination mechanisms for effective planning and delivery of surgical services	Leadership, Governance & Coordination	3.4.1.1 Develop and operationalize national policies on emergency surgical services coordination and integrated disaster preparedness	24,410,500.0	40,575,470.0	78,152,591.4	73,051,764.2	47,869,000.0	264,059,325.5
	Health Financing & Resource Mobilization	3.4.1.2 Strengthen sustainable planning for financing of surgical resources	17,620,000.0	32,677,800.0	39,189,927.0	17,273,106.3	18,800,000.0	125,560,833.3
2 To develop a competent, equitably distributed, and motivated surgical workforce		Subtotals:	42,030,500.0	113,828,740.0	195,495,109.7	163,376,634.7	114,538,000.0	653,679,484.4
	Surgical Health Workforce	3.4.2.1 Conduct national surgical workforce needs assessment and planning	-	96,300,000.0	61,824,600.0	-	-	158,124,600.0
		3.4.2.2 Build capacity of surgical training institutions	8,400,000.0	57,780,000.0	31,599,240.0	29,401,032.0	30,000,000.0	157,180,272.0
		3.4.2.3 Strengthen CPD and mentorship for surgical providers	-	96,300,000.0	61,824,600.0	-	-	158,124,600.0
		3.4.2.4 Improve distribution and retention of surgical workforce	940,000.0	15,408,000.0	4,945,968.0	7,056,247.7	5,200,000.0	33,550,215.7
		Subtotals:	19,340,000.0	261,508,000.0	155,614,808.0	36,457,279.7	35,200,000.0	508,120,087.7
3: To improve the availability, and functionality, and maintenance of essential surgical infrastructure and equipment for optimal service delivery	Surgical Infrastructure, Equipment & Technologies	3.4.3.1 Strengthen surgical infrastructure at all levels of care	376,000,000.0	629,481,000.0	979,347,460.0	1,469,194,069.9	1,334,800,000.0	4,788,822,529.9
		3.4.3.2 Standardize procurement and distribution of surgical equipment	4,512,000.0	19,260,000.0	20,663,155.2	-	-	44,435,155.2
		3.4.3.3 Enhance maintenance and sustainability of surgical equipment	21,150,000.0	37,717,500.0	48,429,270.0	8,636,553.2	7,050,000.0	122,983,323.2
		3.4.3.4 Promote innovative technologies to expand surgical capacity	36,000,000.0	64,200,000.0	109,910,400.0	58,802,064.0	60,000,000.0	328,912,464.0
		Subtotals:	437,662,000.0	750,658,500.0	1,158,350,285.2	1,536,632,687.1	1,401,850,000.0	5,285,153,472.3

Strategic objective	Strategic Pillar	Key Action	Year 1	Year 2	Year 3	Year 4	Year 5	Total
4. To expand equitable access to safe, timely, and quality surgical services at all levels of the health system.	Surgical Service Delivery	3.4.4.1 Strengthen referral systems for surgical services	48,210,000.0	105,336,150.0	184,557,880.0	138,184,850.4	131,600,000.0	607,888,880.4
		3.4.4.2 Improve community awareness and health-seeking behaviour for surgical conditions	-	102,959,252.0	208,664,894.4	70,663,420.3	-	382,287,566.7
		3.4.4.3 Strengthen surgical service delivery capacity at primary and county referral levels	42,750,000.0	142,256,500.0	255,484,435.0	254,441,431.1	204,450,000.0	899,382,366.1
		3.4.4.4 Enhance quality and safety standards for surgical care	1,670,251,500.0	3,887,788,504.0	5,572,544,292.4	5,962,691,975.3	5,220,806,000.0	22,338,492,771.7
		Subtotals:	1,761,211,500.0	4,238,340,406.0	6,221,251,501.8	6,425,981,677.2	5,556,856,000.0	24,228,051,585.0
5. To strengthen surgical health information systems, monitoring, evaluation, and research for evidence-based decision-making	Monitoring Evaluation Research Learning (MERL) & Health Information Systems (HIS)	3.4.5.1 Strengthen integration of surgical indicators into national health information systems	12,520,000.0	233,623,800.0	1,112,842,800.0	595,370,898.0	-	1,954,357,498.0
		3.4.5.2 Improve surgical data quality, analysis, and use	90,360,000.0	125,318,400.0	79,135,488.0	84,674,972.2	69,120,000.0	448,608,860.2
		3.4.5.3 Strengthen surgical monitoring, evaluation, and learning systems	20,040,000.0	28,376,400.0	307,062,180.0	6,909,242.5	240,000,000.0	602,387,822.5
		3.4.5.4 Promote operational research and innovation in surgical care	9,000,000.0	9,630,000.0	-	11,025,387.0	9,000,000.0	38,655,387.0
		Subtotals:	131,920,000.0	396,948,600.0	1,499,040,468.0	697,980,499.7	318,120,000.0	3,044,009,567.7
		GRAND TOTALS:	2,392,164,000.0	5,761,284,246.0	9,229,752,172.7	8,860,428,778.2	7,426,564,000.0	33,719,014,196.9

Annexes

Annex I: Theory of Change



Annex II: Indicator Definitions

Key Performance Indicators		
Performance Indicator	Numerator	Denominator
SP 1: Leadership, Governance & Coordination		
% of surgical facilities using the national emergency coordination policy	Number of facilities meeting the indicator requirement	Total number of surgical facilities
% of counties with integrated disaster plans	Number of counties with integrated disaster plans	Total number of counties (47)
% of counties and Level 4–6 facilities with surgical units	Number of counties/facilities with surgical units	Total number of Level 4–6 facilities
% of emergency response plans with surgical representation	Emergency plans with surgical representation	Total number of emergency response plans
% of planned coordination activities implemented	Implemented coordination activities	Total planned coordination activities
% of surgical strengthening initiatives involving multiple sectors	Initiatives involving multiple sectors	Total number of surgical initiatives
SP 2: Health Financing & Resource Mobilization		
% of counties with ring-fenced budget lines for surgery	Counties with ring-fenced surgery budget lines	Total number of counties (47)
Proportion of surgical services funded from county health budgets	Funding allocated to surgical services	Total county health budget
% of counties using FIF for surgical service improvement	Counties using FIF for surgical services	Total number of counties (47)
SP 3: Surgical Health Workforce		
% of workforce needs addressed	Counties that conducted HRH needs assessments	Total number of counties (47)
National HRH plan implementation rate	Whether national HRH plan is implemented (Yes = 1, No = 0)	1
% of training institutions implementing updated curricula	Institutions with updated curricula	Total number of training institutions
Trainer-to-student ratio in surgical training	Number of surgical trainers	Number of surgical trainees
% of surgical workforce accessing CPD or mentorship	Workforce accessing CPD/mentorship	Total surgical workforce
Counties with full surgical HRH teams	Counties with complete surgical teams	Total number of counties (47)
% reduction in annual surgical workforce-staff attrition rate	Reduction in staff leaving annually	Baseline attrition rate
SP 4: Surgical Infrastructure, Equipment & Technologies		
Proportion of counties with surgical infrastructure plans	Counties with infrastructure plans	Total number of counties (47)
Proportion of Level 3–4 facilities equipped with OTs, sterilization units	Facilities with equipped OTs and sterilization	Total Level 3–4 facilities
Proportion of surgical facilities with uninterrupted utility support	Facilities with consistent utility services	Total surgical facilities
Proportion of counties using standardized procurement frameworks	Counties using standard procurement	Total number of counties (47)
Reduction in procurement lead times for surgical equipment	Reduction in days from baseline	Baseline procurement lead time
Proportion of surgical equipment under routine maintenance	Equipment receiving scheduled maintenance	Total surgical equipment
Ratio of surgical facilities with on-site biomedical support	Facilities with biomedical technicians on-site	Total surgical facilities
Proportion of surgical procedures supported by tech platforms	Procedures using digital platforms	Total surgical procedures

Key Performance Indicators		
Performance Indicator	Numerator	Denominator
Increase in surgeries conducted using modern technologies	Surgeries using modern tech	Total surgical procedures
SP 5: Surgical Service delivery		
Proportion of facilities using updated referral guidelines	Facilities using new referral guidelines	Total surgical facilities
Proportion of referred cases managed through the digital system	Referred cases tracked digitally	Total referred surgical cases
Proportion of providers applying triage protocols	Providers applying protocols	Total trained providers
Community awareness score on surgical conditions	Average awareness score	Maximum achievable score
Proportion of CHPs referring surgical cases	CHPs referring surgical cases	Total active CHPs
Reduction in stigma-related delays in surgery	Reported reduction from baseline	Baseline measure
Proportion of minor surgeries done at Level 3	Minor surgeries performed at Level 3	Total minor surgeries
Proportion of counties with outreach programs	Counties conducting surgical outreach	Total number of counties (47)
Increase in minor surgeries by non-physician clinicians	Minor surgeries by non-physicians	Total minor surgeries
Compliance rate with WHO surgical safety standards	Facilities compliant with WHO standards	Total surgical facilities
Reduction in surgical adverse outcomes	Reduction in reported adverse events	Baseline adverse outcome count
Proportion of facilities with active safety committees	Facilities with safety committees	Total surgical facilities
SP 6: MERL & HIS		
Proportion of facilities using updated KHIS	Facilities using updated KHIS version	Total reporting facilities
Proportion of facilities using standardized tools	Facilities using standard MoH tools	Total surgical facilities
Proportion of facilities reporting surgical data accurately	Facilities submitting accurate data	Total reporting facilities
Proportion of facilities with improved data quality scores	Facilities showing improvement in audits	Total surgical facilities
Proportion of counties using dashboards for decision-making	Counties using dashboards	Total number of counties (47)
Improvement in decision-making based on surgical data	Documented data-informed decisions	Total decision events assessed
Proportion of MOH/county plans aligned to M&E framework	Plans aligned to the framework	Total county/MoH plans
Change in strategic plan implementation effectiveness	Improvement over baseline indicators	Baseline plan implementation score
Improvement in surgical facility readiness and service quality	Facilities showing readiness improvement	Total surgical facilities assessed
Proportion of surgical research agenda implemented	Research priorities implemented	Total planned research agenda items

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