Republic of Kenya

Kenya Health Sector Strategic Plan

Transforming Health Systems: Achieving Universal Health Coverage by 2022

July 2018–June 2023

Republic of Kenya

Kenya Health Sector Strategic Plan

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Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
BMI	Body Mass Index
CRS	Civil Registration System
CYP	Couple-Years of Protection
DALYs	Disability-Adjusted Life Years
DHIS2	District Health Information Software 2
GDP	Gross Domestic Product
HHFA	Harmonized Health Facility Assessment
HIV	Human Immunodeficiency Virus
ICT	Information and Communication Technology
KDHS	Kenya Demographic and Health Survey
KEMSA	Kenya Medical Supplies Authority
KENPHIA	Kenya Population-based HIV Impact Assessment
KHHEUS	Kenya Household Health and Expenditure Survey
KHIS	Kenya Health Information System
KMCHUL	Kenya Master Community Health Unit List application
KMHFL	Kenya Master Health Facilities List application
KMIS	Kenya Malaria Indicator Survey
KNBS	Kenya National Bureau of Statistics
NTSA	National Transport and Safety Authority
PHC	Primary Health Care
STEPS	STEP-wise Survey for Non-Communicable Diseases Risk Factors
TB	Tuberculosis
TIBU	Tuberculosis Information from Basic Units system
UHC	Universal Health Coverage
WHO	World Health Organization

Foreword

The development of the Kenya Health Sector Strategic Plan 2018–2023 is guided by the Constitution of 2010, the Kenya Vision 2030 and the Kenya Health Policy 2014–2030. The Constitution states that every person has the right to the highest attainable standard of health, while enshrining a system of devolved government to ensure improved service delivery, greater accountability, improved public participation and equity in the distribution of resources. The Kenya Vision 2030 aims to transform Kenya into a globally competitive and prosperous country with a high quality of life by 2030. Improved health is a critical driver in the achievement of this vision. The Kenya Health Policy 2014–2030 aims for a level and distribution of health services commensurate with those of a middle-income country, through the attainment of specific health-related targets.

The Kenya Health Sector Strategic Plan 2018–2023 has been developed using a consultative approach that involved all the key stakeholders in the health sector, while taking into account all the new actors under the devolved system of government. It includes key recommendations from the performance reviews of the previous plan, the Kenya Health Sector Strategic and Investment Plan 2014–2018, and considers emerging health trends and global priorities.

The Strategic Plan provides the health sector with the medium-term focus, objectives and priorities needed to enable the country to move towards achievement of the health goals described in the Constitution and the strategic imperatives mentioned above. It provides a detailed description of the desired health outcomes, the priority health investments needed to achieve the outcomes, the resource implications and financing strategy, and the organizational frameworks required to implement the Plan.

The Government of Kenya has committed itself to providing universal health coverage under the "Big Four" agenda (along with increased manufacturing, food security and affordable housing) as part of efforts to ensure socioeconomic transformation through access to equitable, affordable and high-quality health care for all Kenyans. This will be achieved through implementation of appropriate policies and programmes in the health sector.

The Ministry of Health is committed to the full realization of the Strategic Plan. The Plan is supported by a robust monitoring and evaluation framework to track the achievement of milestones in a way that is responsive and accountable to the health needs of the Kenyan people.

We look forward to working collaboratively with the national and county governments, partners and all other stakeholders to ensure its successful implementation.

Sen. Mutahi Kagwe, E.G.H.
CABINET SECRETARY

Acknowledgements

The Kenya Health Sector Strategic Plan 2018–2023 sets forth the strategic direction, the areas of investment, the implementation framework and the resources that are required in the health sector between 2018 and 2023. It is the second strategic plan under the Kenya Health Policy 2014–2030.

The Ministry of Health appreciates the special support provided by the Office of the Cabinet Secretary and the office of Director General (DG) in terms of overall stewardship and technical guidance, respectively, and by the Council of Governors in coordinating the counties' participation in the development of the Plan.

Thanks also go to all the various other stakeholders who contributed to the development of this strategic Plan. In particular, I applaud the Central Planning and Project Monitoring Department of MOH, especially for its tireless efforts in coordinating this process. I commend the team for the way it guided the process and facilitated the various working groups. The efforts of officers from other directorates in connection with the development of this strategic plan are also appreciated. Similarly, I thank the county technical teams and development and implementing partners for their input and contributions.

Development of the Plan was made possible by the technical and financial support provided by our development partners, to whom we are extremely grateful. Special mention goes to the World Health Organization, the United States Agency for International Development, the United Nations Population Fund and the United Nations Children Fund for their immense support.

Successful implementation of the Strategic Plan will require the participation of all stakeholders in the health sector and the coordinated efforts and action of many. I am confident, however, that this Plan will inform the joint annual planning process and enhance sector coordination, the forging of partnerships and monitoring efforts.

Susan N. Mochache, C.B.S.
PRINCIPAL SECRETARY

Executive Summary

Introduction

The strategic focus of the health sector in 2030 (Government of Kenya, 2012) and the Kenya Health Policy 2014–2030 (Ministry of Health, 2014a). The Kenya Vision 2030 aims to transform Kenya into "a globally competitive and prosperous country with a high quality of life by 2030", while the Constitution introduces critical principles related to the right to health and devolution of the management of health services. The long-term health objectives that the country intends to achieve in pursuit of the imperatives of the Constitution and the Kenya Vision 2030 are set out in the Kenya Health Policy 2014–2030. The Kenya Health Sector Strategic Plan 2018–2023 defines medium-term priorities and goals for attainment of the objectives of the Kenya Health Policy 2014–2030. It will guide the health sector and other sectors with regard to the strategic priorities on which they need to focus in addressing the health agenda in Kenya.

The Plan provides the overall framework for the health sector in the medium term, in terms of direction, investment priorities and guidance. It will be informed by a series of documents such as the draft universal health coverage road map (Ministry of Health, 2018a), the Kenya Essential Package for Health, health sector norms and standards relating to human resources and infrastructure; the draft Kenya Health Sector Partnership and Coordination Framework (Ministry of Health, 2018b) and the Monitoring and Evaluation Framework for the health sector (Ministry of Health, 2018c). Other operational documents include county-specific health strategies, programme-specific strategies and the strategies of specific semi-autonomous government agencies.

Alignment of the Kenya Health Sector Strategic Plan 2018–2023 with global and regional commitments relating to health

This strategy plan aims to provide a framework for investing in primary health care (PHC), following the Astana Declaration on Primary Health Care (World Health Organization, 2018) that aims to galvanize commitment to and action relating to PHC in the twenty-first century and stimulate global investment in PHC. Other health commitments with which the strategic plan is aligned include the Sustainable Development Goals (United Nations, 2015); the International Health Regulations (World Health Organization, 2005); the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa (World Health Organization, 2008a), the International Health Partnership and Related Initiatives, the Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases (Organization of African Unity, 2001), the African Union Agenda 2063 (African Union, 2015) and international human right law agreements such as the Universal Declaration of Human Rights (United Nations General Assembly, 1948), the Convention on the Elimination of All Forms of Discrimination against Women (United Nations General Assembly, 1979), the Convention on the Rights of the Child (United Nations General Assembly, 1989), the Programme of Action of the International Conference on Population and Development (United Nations, 1994) and the Beijing Declaration and Platform of Action adopted at the fourth World Conference on Women (United Nations, 1995).

Development of the Kenya Health Sector Strategic Plan 2018–2023

The Strategic Plan set out here was developed through a comprehensive consultative process based on the procedure for development of strategic plans documented in the quality management system of the Ministry of Health. Eight thematic groups were formed, according to the investment areas of the Kenya Health Policy 2014–2030. The groups comprised representatives of all key stakeholders and were given clear terms of reference. The drafting of the strategic plan was carried out by the various thematic groups. Comprehensive and structured consultations then took place on the draft strategy at various levels, including at the national Ministry of Health level and at the county level and among key health-sector stakeholders.

The draft Kenya Health Sector Strategic Plan 2018–2023 was subjected to the Joint Assessment of National Health Strategies approach, supported by the World Health Organization (WHO), and various recommendations were incorporated. Stakeholders validated the final strategy, which was then endorsed by the Cabinet Secretary for Health and disseminated for implementation.

Situation analysis

The midterm review of the first plan (Ministry of Health, 2016) – the Kenya Health Sector Strategic and Investment Plan July 2014–June 2018 (Ministry of Health, 2014b) – revealed a significant increase in access to and use of health services. These changes were attributed in part to the expansion of health infrastructure and the reduction of financial barriers through the provision of free PHC services, respectively.

Of note are the increases in the proportion of HIV-positive pregnant women receiving antiretroviral therapy and the proportion of pregnant women receiving long-lasting insecticide-treated nets. There was a general increase in breastfeeding at both the national and county levels, with exclusive breastfeeding increasing from less than 60 per cent in 2013/14 to nearly 80 per cent in 2016/17. The nutritional status of children is improving, with stunting rates decreasing from 35 to 26 per cent. Approximately 13 million school-age children were dewormed, while mass treatment of lymphatic filariasis was conducted in 23 endemic subcounties in 2015 and 2016, achieving 63 per cent treatment coverage.

On the contrary, the proportion of deliveries attended by a skilled health worker remained relatively constant between 2013/14 and 2016/17, although there were wide disparities across the counties. The proportion of women that received antenatal care four times decreased at the national level, from about 50 per cent to about 40 per cent, and in most counties, between 2016/17 and 2013/14. The proportion of fully immunized children below 1 year of age dropped from 90 per cent in 2013/14 to less than 80 per cent in 2016/17. The same pattern could be seen in most counties, with 34 of the 47 counties showing lower levels of full immunization coverage in 2016/17 than in 2013/14. The proportion of women of reproductive age receiving family planning support decreased between 2013/14 and 2016/17, from 60 to 48 per cent.

Data from a variety of sources and studies show that the health sector has made remarkable progress in reducing the burden of disease. This includes reductions of 15 and 16 per cent in the under-5 and infant mortality rates, respectively, during the period 2014 to 2017 (Institute for Health Metrics and Evaluation, 2017). Between 2012 and 2016, 95 percent of deaths were due to preventable diseases, with HIV, lower-respiratory-tract infections and malaria causing 12, 9 and 5 per cent, respectively, of all deaths (Ministry of Health, 2018d).

In terms of morbidity, the prevalence of **HIV** among people aged 15 to 49 is estimated to have dropped from 5.9 to 4.8 per cent between 2015 and 2017 . In 2016, the true burden of **tuberculosis** (TB) in Kenya was 426 cases per 100,000 population. In 2017, it is estimated that 158,000 persons fell ill with TB, yet only about 85,518 were notified, and that there were about 2,800 cases of drug-resistant TB, yet only 577 were detected and notified. **Malaria**

remains a significant public health concern in Kenya. Three-quarters of the population are at risk of infection and the actual prevalence is highest, at 11 per cent, among children aged 10–14 years. The prevalence of **diabetes mellitus** among adults is 2 percent, but it is estimated that only 41 per cent of actual cases have been diagnosed. Effective treatment coverage is 7 percent. It is estimated that almost one quarter of the adult population (23 per cent) suffer from **raised blood pressure**, but only 20 per cent have been diagnosed. Effective treatment coverage for hypertension is only 4 per cent.

Cancer accounts for 4 percent of overall national mortality. Prevalence of cancer has been rising, from fewer than 200 cases per 100,000 people in 1990 to 250 cases per 100,000 people in 2017.

Kenya is undergoing an epidemiological change marked by a decline in morbidity and mortality due to **communicable** diseases and an increase in the burden of **non-communicable** diseases. The Kenya STEPwise Survey for Non-Communicable Disease Risk Factors (STEPS) of 2015 (Ministry of Health and others, 2015) revealed that 10 percent of Kenyans had been seriously injured in the preceding 12 months, while another 4 per cent had been involved in a violent incident.

Gender-based violence is a major human rights violation that tends disproportionally to affect women, not only in Kenya, but worldwide. Statistics from the Kenya Demographic and Household Survey (KDHS) 2014 (Kenya National Bureau of Statistics and others, 2015) revealed that 44 and 14 per cent of women had at some time experienced physical violence and sexual violence, respectively.

Routine data from 2018 indicates that **road traffic accidents** were among the top ten leading causes of mortality in Kenya, accounting for 3.2 percent of hospital deaths in Kenya in 2017/18. The number of deaths due to road traffic injuries is approximately 3,000 annually.

Achievement of **universal health coverage** (UHC) has remained elusive owing to: unequal access to the different health care services as a result of poor distribution and use of resources; geographical and sociocultural barriers that prevent many interventions from reaching the people that most need it; and the high costs associated with accessing and using the available services.

Progress made thanks to **investments in the key building-blocks of the health system** was also looked at, with a focus on the following areas: health service delivery; health leadership and governance; human resources for health; health products and technologies; health financing; health infrastructure; health information monitoring and evaluation; and health research and development.

Service delivery: Investment by key stakeholders in health has led to growth in the number of health facilities in the country. According to the Kenya Master Health Facility List application, the number of health-care facilities in the country increased from fewer than 9,000 in 2013 to 10,000 in 2016, pushing up the national average facility density from 1.9 to 2.2 health facilities per 10,000 people. To strengthen disease surveillance and outbreak response, the Government has established the Public Health Emergency Operations Centre. Its role is to develop, strengthen and maintain the capacity to respond effectively to public health emergencies. Areas for improvement include unregulated training of emergency medical personnel, poor coordination of major incident activities and a lack of standard operating procedures and emergency plans.

Health leadership and governance: Intergovernmental coordination structures have been established and are functioning fairly well. Achievements of the period covered by the previous strategic plan, include: enactment of legislation; development and dissemination of norms and standards and manuals; development and implementation of health service management structures by the counties; capacity-building; establishment of social accountability mechanisms; development and implementation of partnership coordination

frameworks in some counties; and the conduct of annual performance reviews at both levels of government. Some leadership and governance challenges were experienced, most attributable to teething problems in implementing the two levels of government provided for in the Constitution. Some of the issues that need to be addressed are: varying political commitment and budgetary allocations at all levels; a lack of inclusion of all stakeholders; weak social accountability at all levels; an absence of managerial processes; inexistant or inadequate support in creating an enabling environment for effective institutional performance; absence of functional governance tools and structures; absence of a public–private partnership framework (although a draft exists); inadequate stewardship, alignment and harmonization of policy and strategic documents; and the lack of a well-coordinated and structured capacity-building plan for the counties.

Human resources for health: As at November 2018, Kenya had 68,085 health workers in the public sector and 10,626 in the private sector, totalling 78,711 health workers for a population of 47.8 million, given by the Kenya National Bureau of Statistics. This gives a ratio of 16.5 health workers per 10,000 people, whereas the WHO recommendation is 23 per 10,000. That means that the optimal number of health workers would be 109,940 and there is a shortfall of 31,229. According to professional associations, Kenya has 11,000 doctors, 76,000 nurses and 19,085 clinical officers, of whom only 4,000 doctors, 47,000 nurses and 6,659 clinical officers were active in the public health sector as at June 2018. This translates to an average of 21 doctors and 100 nurses per 100,000 people compared with the WHO-recommended minimum staffing levels of 36 doctors and 356 nurses per 100,000 people. Similarly, the country has a total of 53,090 community health volunteers and 1,740 community health extension workers. Some of the key issues that need to be addressed include: gaps in policy guiding the management of health workers; a lack of coordination among governments and between the county government and the national government in relation to human resources for health; industrial action by health workers; inadequate management and leadership capacity in relation to human resources at the county level; inadequate numbers and inequitable distribution of health workers; low absorption of skilled health professionals into the health system and inadequate numbers of trained specialists and subspecialists; high staff turnover; out migration of human resources to other countries and other counties; a recruitment model that is not cost-effective; and a lack of performance-based management.

Health products and technology: The National Medicines and Therapeutics Committee was reconstituted in 2014 and various guidelines relating to health products and technology have been reviewed. These include guidelines for medicines and therapeutics; guidelines for quantification of health commodities; guidelines for management of medicines and medical supplies; and guidelines for supportive supervision for health commodities. The supply of health products and technologies in Kenya is supported by both local and international pharmaceutical manufacturers. There are currently 35 local manufacturers of pharmaceuticals for both local consumption and export, yet the country imports over 95 per cent of non-pharmaceutical health products. This increases both the procurement lead times and the cost of these commodities. The country requires 450,000 units of blood and blood products per year, and in 2017 the Kenya National Blood Transfusion Service provided 183,790 units. About 63 per cent of the country's blood needs have remained unmet since 2003. The service plans to collect 250,000 units of blood in 2018/2019 and increase the number of units collected by 15 per cent a year for the next five years. This is on account of the increase in accidents, injuries, complications in pregnancy and delivery and non-communicable conditions. As at 2018, the Kenya National Blood Transfusion Service had 24 facilities located in 23 counties. Guidelines and policies on appropriate use of blood and blood products and the national standards for blood transfusion have been reviewed and are in use. The key issues to be addressed include:

the shortfall in blood; use of uncoordinated logistics management information systems that pose challenges for the collection of data for ascertaining demand and managing supply at both the national and county levels; counterfeit medicines; procurement lead times and the price of health commodities.

Health financing: Spending on health in Kenya increased by 176 per cent between 2001/02 and 2015/16, from approximately KSh 125 billion (US$ 1,596 million) in 2001/02 to KSh 346 billion (US$ 3,476 million) in 2015/16. During the years 2001/02, 2005/06, 2009/10, 2012/13 and 2015/16, total health spending in the country was 5.1, 4.7, 5.4, 6.8 and 5.2 percent of nominal GDP, respectively. Government health spending as a proportion of total government expenditure was estimated to have been 8.0, 5.1, 4.8, 6.1 and 6.7 per cent in those same years. Several emerging issues relating to health finance that has guided the desired output of the Plan: low insurance coverage; no real increases in health expenditure; donor choices in the funding landscape; inefficient management of multiple funding sources; inefficiencies and inequities in current pooling and management arrangements; overlapping roles among financers, purchases and service providers; and uneven investment in delivery of the benefit package.

Health infrastructure: This investment area comprises three interrelated components –medical devices, information and communication technology (ICT) and transport. The Ministry of Health has made investment in modern medical equipment a key priority through the Managed Equipment Services project. The seven-year contract that runs from 2015 to 2022 focuses on 98 hospitals (two hospitals in each of the 47 counties and four national hospitals). Health care and ICT are slowly becoming more interconnected in the country thanks to the comprehensive Kenya National e-Health Policy 2016–2030. In this context, communication services and facilities include telemedicine, mobile-health, e-learning, telephone connections, Internet services, intercom or public address systems, local area networks and computers with the necessary accessories. In terms of transport, countrywide, the average proportion of required emergency transport that is actually available is 18 per cent. This proportion is lowest in Kitui, where it is 6 percent, and highest in Taita Taveta, where it is 46 per cent. Despite the growth in the number of health facilities in the country, there are imbalances in their geographic distribution. A patient's average distance from a health facility is about 9.5 km. Some of the key issues to be addressed include: a lack of implementation of health infrastructure norms and standards; uneven distribution of the available infrastructure; a high proportion of stalled projects; and poor maintenance and lack of repair of health infrastructure.

Health information monitoring and evaluation: Major progress has been made in the development of policies and documents to guide health information activities relating to: indicators; the institutionalization of monitoring and evaluation; data quality assurance; health information systems; performance review; e-health; mobile-health; interoperability of systems and tools; and a uniform platform for generating aggregate information. Some of the key challenges that need to be addressed in the present strategy include: an inadequate capacity for analysis; the development of targeted dissemination products; use of information for decision making; the existence of multiple unlinked ; inadequate use of ICT and poor investment in e-health and other technologies; inadequate resources.

Health research and development: During the period covered by the previous strategic plan, the Kenya Medical Research Institute had more than 1,000 new proposals approved, produced more than 1,200 publications and eight other products and each year wrote five policy briefs. Other notable achievements in the area of research and development include: creation of the Health Research and Development Unit with the Ministry of Health; development of research coordination framework, which is now included as part of the Health Act 2017 (National Council for Law Reporting, 2017); establishment of a technical working group

on research for health; establishment of the Kenya Health and Research Observatory; dissemination of research findings through various forums And training of Ministry of Health officials on evidence-informed policymaking. There are, however, some key challenges faced by research for health in the country that need to be addressed. Current research for health is not appropriately coordinated, leading to unwarranted duplication and preventing optimal use of resources and findings. Funding for research has remained very low and the sector has continued to rely on donors and funding from partners. The level of translation of research findings into policy and products is low.

Health sector priorities

The goal of the Kenya Health Policy 2014–2030 is to attain "the highest possible health standards in a responsive manner", and the overarching focus of the Strategic Plan is the Government's target of achieving UHC. The priorities of the health sector are set out in the objectives of the policy. They are to eliminate communicable conditions; to halt and reverse the rising burden of non-communicable conditions and mental disorders; to reduce the burden of violence and injuries; to provide essential health care; to minimize exposure to health risk factors; and to strengthen collaboration with the private sector and other health-related sectors.

The policy principles that will guide prioritization are: equity in the distribution of health services and interventions; a people-centred approach to health and health interventions; participatory approach to the delivery of interventions; a multisectoral approach to the realization of health goals; efficiency in the application of health technologies; and social accountability.

The key outputs in the Strategic Plan relate to improvements in access (physical, financial and sociocultural) to health services, in demand to services and in the quality of services. These should be the expected result of any investments in health.

Health system investment areas, strategies, outputs and key actions

The Strategic Plan is geared towards achieving key objectives in each investment area. The target and indicators are clearly spelled out in the monitoring and evaluation framework for the health sector for the period of implementation of the Plan and are summarized in the table at the end of this executive summary. Following are the strategic outputs for each investment area:

- **Service delivery:** increasing access to care that is equitable in terms of quality and availability of services at all levels, including emergency care; creating and sustaining demand for improved preventive and promotive health-care services; and strengthening community health systems to be responsive and resilient to public health emergencies and outbreaks of disease (health security).
- **Health leadership and governance:** improving health-system stewardship and public and social accountability at all levels; implementing appropriate health governance structures at the national level and in all 47 counties; establishing and coordinating health and strategic partnership arrangements at all levels; and advocating increased support for and investment in health systems at all levels among policymakers and parliamentarians.
- **Human resources for health:** ensuring adequate numbers of appropriately and equitably distributed human resources for health; improving and institutionalizing management of human resources for health in the context of decentralization; streamlining training for human resources for health for high-level performance in the context of decentralization; strengthening the PHC capacity of community-level health workers; and improving the use of data and information relating to human resources for health in decision-making and planning.

- **Health products and technologies:** increasing access to all health commodities; enhancing the quality of all health commodities; ensuring prudent management of health commodities; enhancing supportive supervision in relation to health commodities; strengthening the legal identity of and advocacy relating to the Kenya National Blood Transfusion Service; ensuring an adequate, safe and equitable supply of blood and blood products; and enhancing the quality of blood transfusion services and products.
- **Health financing:** increasing public financing for health; maximizing the availability of resources and fairness in relation to their use (risk pooling); and strengthening strategic purchasing.
- **Health infrastructure:** expanding and improving physical infrastructure (buildings, plants, utilities, energy sources and others); expanding and improving use of equipment (medical devices, hospital equipment and other technologies); improving ICT for all facilities; and providing reliable transport services (ambulances, utility motor vehicles and others).
- **Health information monitoring and evaluation:** strengthening the timely generation and use of integrated, comprehensive and high-quality health information; strengthening the system of health information validation; enhancing analysis capacity at all levels for improved decision-making; strengthening systems for the predictable and targeted dissemination of information to all stakeholders; improving the use of health information to guide policies, planning and programme management; improving governance of health information systems; and managing the development of key health information systems.
- **Health research and development:** developing an integrated research plan and capacity-building initiative at the national and county levels; enhancing investment in research and evidence generation for effective policy and programme development; and strengthening research links with academic institutions.

Resource requirements and availability

The Health Sector Strategic Plan was costed using the One Health model that computes the cost implications of achieving the targets set under programmes relating to specific diseases and those relating to elements of the overall health system. According to the costing, KSh 2,660 billion are required to finance the health sector over the period covered by the KHSSP. This is the combination of the costs required per health-programme area (maternal, newborn and reproductive health; child health; immunization; malaria; TB; HIV/AIDS; nutrition; water, sanitation and hygiene; non-communicable conditions; mental, neurological, and substance-use disorders; adolescent health; and neglected tropical diseases) and per health-system investment area, i.e Health Governance, Health Financing, Human Resources for Health, Logistics, Infrastructure, Health Information & M&E, Service Delivery, and Research & Development.

Overall, a total of K Sh 1,988 billion is expected to be available to support implementation of the Strategic Plan. The major financiers of the Plan are expected to be the Government and households themselves, with contributions of 52 and 33 per cent, respectively. The difference between the resource requirements and the resources projected to be available gives the shortfall in the funding required if the Strategic Plan is to be fully implemented. This gap amounts to KSh 672 billion. The draft Kenya Health Financing Strategy 2016–2030 details the approach that the health sector is taking to reduce this funding gap.

Implementation arrangements

The Ministry of Health will take the lead role in implementation of the strategic plan, in collaboration with all stakeholders at the national and county levels. Implementation takes into account that the country now functions under a devolved system of governance. Stakeholders in the health sector will include: clients (individuals, households and communities); State actors (national and county governments, including in other sectors that relate to health); non-State actors (implementing partners, the private sector, civil society and faith-based and non-governmental organizations); and external actors (development partners).

The draft Kenya Health Sector Partnership and Coordination Framework 2018–2030 outlines structures and mechanisms that bring together all key partners at different levels to collaborate in improving the health of the population. To improve the overall partnership and coordination efforts, priority will be given to the following issues: improving adherence to agreed coordination structures; improving harmonization of stakeholder efforts; establishing a capacity-building process for partnerships; and establishing a fully functional partnership secretariat. Common planning and budgeting processes will be adopted. The common planning framework for the health sector is set by the Kenya Health Policy 2014–2030; the Kenya health sector strategic and investment plans; annual work plans; county integrated development plans; and national programme plans. A common budgeting framework, which includes not only the public resource envelope, but all of the sector's resources from State, non-State and external actors, guides the sector in prioritizing use of the available resources.

There is a need to develop a communication strategy to foster greater support and buy-in among key stakeholders, including the public. The communication strategy will focus on ensuring that all stakeholders understand the Kenya Health Sector Strategic Plan 2018–2023 and the ongoing health reform process; ensuring that all stakeholders are fully informed of and understand their roles and responsibilities with regard to the implementation of the Strategic Plan; and enhancing consultation with agencies in achieving set outcomes. The strategies outlined in the Plan are prone to influence from external factors that are not necessarily related to the health sector. It is therefore crucial that a deliberate effort be made to predict these and identify risk mitigation measures early enough to ensure that implementation continues smoothly. Predicted risks include waning political commitment, inadequate financial, human and technological resources, lack of community involvement, epidemics, instability and environmental factors.

Monitoring and evaluation

The purpose of the Monitoring and Evaluation mechanism is to facilitate systematic tracking of progress against interventions outlined in this strategy. While regular monitoring will be done at predetermined intervals to assess progress towards set targets and objectives, evaluation of the strategy will facilitate consolidation of intelligence on how well implemented interventions have worked both at midterm and end term. This information at midterm will be used to assess the likelihood of achieving the strategy's objectives and targets, and consequently inform any need to revise both targets and interventions where these may be found to be unachievable or inappropriate. Overall achievements of the strategy against its intended objectives will be assessed at the end term evaluation, and this will form the basis of the consecutive strategic plan.

A Health Sector Monitoring and Evaluation plan has been developed to guide the M&E functions at all levels from community, facility, sub-county, county and National, ensuring that generated information is utilized at the point of generation to make decisions. This M&E plan outlines the structures and mechanisms that will support this function, including outlining all strategy indicators and targets, data sources and data collection methods that will be needed to collect the relevant information to inform decisions. Methods to analyze and scale up utilization of generated information, as well as the roles and responsibilities of the various entities are also outlined in the sector plan.

Mechanisms to review and share results have been outlined which include joint review meetings as well as health forums at both County and National level. These forums will bring stakeholders together to share progress made after every annual performance review.

Outputs expected include regular performance review reports, a Mid Term Review report (MTR), and an end term report. Various surveys are expected to be carried out to inform achievements on several indicators in the strategy.

Chapter One: Background

1.1 Introduction

The Kenya Health Sector Strategic Plan 2018–2023 is the second such five-year plan for implementation of the Kenya Health Policy 2014–2030. It is premised on the need to accelerate the achievement of UHC and incorporates the priorities and targets of the Sustainable Development Goals and the African Union Agenda 2063. In addition, the priorities of the Kenya Health Policy and the Third Medium-Term Plan 2018–2022 (Government of Kenya, 2018) of the Kenya Vision 2030, including the latter's flagship projects, are given pre-eminence.

The strategic focus of the health sector in Kenya is guided by the Constitution of 2010, the Kenya Vision 2030 and the Kenya Health Policy 2014–2030. The Kenya Vision 2030 aims to transform Kenya into "a globally competitive and prosperous country with a high quality of life by 2030", while the Constitution introduces critical principles related to the right to health and devolution of the management of health services. The long-term health objectives that the country intends to achieve in pursuit of the imperatives of the Constitution and the Kenya Vision 2030 are set out in the Kenya Health Policy 2014–2030. The policy is aimed at "attaining the highest possible health standards in a responsive manner". It seeks to achieve this goal by supporting the provision of equitable, affordable and high-quality health and related services to all Kenyans according to the highest attainable standards. It aims to reach a level and distribution of health services commensurate with those of a middle-income country.

The Strategic Plan defines medium-term priorities and goals for attainment of the objectives of the Kenya Health Policy 2014–2030. It will guide the health sector and other sectors with regard to the strategic priorities on which they need to focus in addressing the health agenda in Kenya. The Plan has been developed in a consultative manner and is a consolidation of the views and perceptions of all stakeholders, including counties, development partners, implementing partners and the private sector, regarding the actions to be prioritized in the medium term to achieve the imperatives of the Kenya Health Policy.

Over the past five years, the health sector has made remarkable progress in reducing the burden of disease in the country. The health of the Kenyan people has slowly improved and life expectancy has marginally increased. Nevertheless, the burden of communicable diseases, although declining, has continued to weigh heavily on the country, and there has been a rise in non-communicable conditions and injuries. Significant progress, however, has been made in strengthening the health system through the provision of critical input and resources. The Strategic Plan aims to consolidate the gains made over the past five years by transforming health systems so that they are able to deliver high-quality services to all Kenyans and achieve UHC by 2023.

1.2 Kenya Health Sector Strategic Plan 2018–2023 and global and regional health commitments

The Strategic Plan 2018–2023 is aligned with several of the global and regional health-related instruments and processes to which the country has committed itself. The critical ones

that have informed the focus and priorities of the Plan include the following:

- **Sustainable Development Goals** – a focus of global efforts to improve health by implementing a UHC agenda, as shown in figure 1.1;
- **Astana Declaration on Primary Health Care** – outcome of the global conference on PHC, aiming to galvanize commitment to and action relating to PHC in the twenty-first century and stimulate global investment in PHC;
- **International Health Regulations** and the related guidance for countries on the key actions needed to ensure compliance with the regulations;
- **Ouagadougou Declaration on Primary Health Care and Health Systems in Africa** – outcome of the international conference on the same topic, reiterating the principles of the PHC approach in strengthening a health system overall.;
- **International Health Partnership and Related initiatives** – aimed at improving development cooperation in the field of health to help meet the Millennium Development Goals;
- **Abuja Declaration on HIV/AIDS, Tuberculosis and Other Related Infectious Diseases** – outcome of the special summit of heads of State and Government on the same topic, aiming to support improvements in health systems in countries by ensuring the allocation of 15 per cent of each government's annual budget to the health sector;
- **International human rights law agreements** such as the 1948 Universal Declaration of Human Rights, the 1979 Convention on the Elimination of All Forms of Discrimination against Women, the 1989 Convention on the Rights of Child, the 1994 Programme of Action of the International Conference on Population and Development and the 1995 Beijing Declaration and Platform of Action, adopted at the fourth World Conference on Women;
- **Africa Union Agenda 2063** – a strategic framework for the socioeconomic transformation of the continent over the next 50 years that builds on, and seeks to accelerate the implementation of, past and existing continental initiatives for growth and sustainable development.

Figure 1.1: Sustainable Development Goals

Source: United Nations (2015).

Figure 1.2 shows where the Sustainable Development Goals build on, and expand, the unfinished agenda of the Millennium Development Goals (targets 3.1, 3.2, 3.3 and 3.7), while embracing additional emerging health concerns (targets 3.4, 3.5, 3.6 and 3.9).

1.3 Kenya health development agenda

The development agenda in Kenya is anchored in the Kenya Vision 2030 and its realization is taking place through the incremental implementation of medium-term plans. The Government is committed to implementing UHC as one of the elements of its "Big Four" agenda. UHC is an integral part of the country's efforts to attain the health status set out in the Kenya Health Policy 2014–2030. The Government has committed itself to making sustained and progressive investments to help meet the country's objectives in terms of UHC. These objectives are:

a. To progressively increase the percentage of Kenyans covered by essential health services;

b. To increase the percentage of Kenyans covered by prepaid health-financing mechanisms, such as health insurance, subsidies and direct government funding, for accessing health services;

c. To progressively expand the scope of the health benefit package accessible to all Kenyans;

d. To improve the quality of health services;

e. To protect Kenyans from catastrophic health expenditures, in particular the poor and other vulnerable groups;

Figure 1.2: Interrelation between the health-related Sustainable Development Goals and targets

SUSTAINABLE DEVELOPMENT GOAL 3: ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL, AT ALL AGES		
TARGET 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all		
Sustainable Development Goal targets relating to unfinished Millennium Development Goals and expanded agenda	New targets of Sustainable Development Goal 3	Means of implementation of the targets of Sustainable Development Goal 3
TARGET 3.1: Reduce maternal mortality **TARGET 3.2:** End preventable deaths of newborns and children under 5 **TARGET 3.3:** End the epidemics of AIDs, TB, malaria and neglected tropical diseases and combat hepatitis, waterborne and other communicable diseases **TARGET 3.7:** Ensure universal access to sexual and reproductive health-care services and the integration of reproductive health into national strategies and programmes	**TARGET 3.4:** Reduce mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being **TARGET 3.5:** Strengthen prevention and treatment of substance abuse **TARGET 3.6:** Halve the number of global deaths and injuries from road traffic accidents **TARGET 3.9:** Reduce deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination	**3.a:** Strengthen implementation of the WHO Framework Convention on Tobacco Control **3.b:** Support research and development of vaccines and medicines for communicable and non-communicable diseases; provide access to affordable medicines and vaccines **3.c:** Increase health financing and the recruitment, development, training and retention of the health workforce **3.d:** Strengthen the capacity for early warning, risk reduction and management of health risks
Interaction with economic, other social and environmental Sustainable Development Goals and Goal 17 on means of implementation		

Source: United Nations (2015).

f. To provide and maintain the supply resources needed for the delivery of health services;

g. To strengthen leadership and governance within the health sector.

The Kenya Health Sector Strategic Plan 2018–2023 will guide the health sector and other stakeholders in prioritizing and ensuring the alignment of key projects/programmes that aim to transform the health system and achieve UHC.

1.4 Kenya Health Sector Strategic Plan 2018–2023 and the Constitution

The promulgation of the Constitution 2010 was a major milestone in efforts to improve health standards. Citizens' high expectations are anchored in the Constitution, which states that every citizen has the right to life, the right to the highest attainable standard of health, including reproductive health, the right to be free from hunger and to have food of acceptable quality, the right to clean and safe water in adequate quantities and reasonable standards of sanitation and the right to a clean healthy environment. It further states that a person shall not be denied emergency medical treatment and that the State shall provide appropriate social security to persons who are unable to support themselves and their dependents.

The Constitution also provides an overarching legal framework for ensuring the provision of more comprehensive and people-driven health services and the adoption and application of a rights-based approach to health in the country. All the provisions of the Constitution affect the health of the people in Kenya in one way or another, yet two critical chapters set out new ways of addressing health problems and have direct implications for the focus, priorities and functioning of the health sector. These are the chapters on the Bill of Rights and on devolved government.

1.5 Kenya Health Sector Strategic Plan 2018–2023 and the Kenya Health Policy 2014–2030

The Government of Kenya is implementing the Kenya Health Policy 2014–2030, through five-year strategic plans. The goal of the policy is "attainment the highest standard of health in a manner responsive to the needs of the Kenyan population", by supporting the provision of "equitable, affordable and high-quality health and related services, at the highest attainable standards, for all Kenyans". The policy has six objectives. It aims to eliminate communicable conditions; halt and reverse the rising burden of non-communicable conditions and mental disorders; reduce the burden of violence and injuries; provide essential health care; minimize exposure to health risk factors; and strengthen collaboration with the private sector and other health-related sectors.

These policy aspirations will be achieved by investing in the health-system building blocks within the strategic plan, namely: health service delivery; health leadership and governance; human resources for health; health products and technologies; health financing; health infrastructure; health information monitoring and evaluation; and health research and development.

1.6 Kenya Health Sector Strategic Plan 2018–2023 and the Kenya Vision 2030

The Kenya Vision 2030 identifies the health sector as an essential component of national development. One of the goals of the Vision is to improve overall health outcomes and indicators by shifting the focus from curative health care to preventive health care and health promotion. This is in line with the main government agenda of transforming health services in order to achieve UHC by 2022. The health sector will also contribute to the other strategic elements of the "Big Four" agenda, namely the provision of affordable housing, food security and increased manufacturing, by ensuring a healthy workforce and population in general.

The Kenyan health sector thus plays a pivotal role in addressing issues of equity and the broader national socioeconomic agenda in line with the aspirations of the social pillar of the Kenya Vision 2030. The sector is seeking to reduce the inequalities shown by health-related outcome and impact indicators. Specific strategies to be employed under the Vision 2030 include: ensuring a robust network of health infrastructure; improving the quality of health service delivery to the highest standard; and promoting partnerships with the private sector. In addition, the Government will provide access to health care for those excluded owing to financial hardship and pay special attention to the needs of women, girls and people in vulnerable situations.

1.7 Kenya Health Sector Strategic Plan 2018–2023 and the Third Medium-Term Plan of the Kenya Vision 2030

The theme of the Third Medium-Term Plan 2018–2022 of the Kenya Vision 2030 is "Transforming lives: Advancing socioeconomic development through the 'Big Four'". The medium-term plan gives the strategic direction to be followed by the health sector over the next five years. The overall objective of the plan is to accelerate attainment of UHC by:

a. Enhancing efficiency in the provision of health-care services;
b. Improving the availability of essential health services;
c. Ensuring equity of access to essential health services;
d. Enhancing human-resource capacities in the provision of health services;
e. Improving the availability of specialized medical services for the population.

In this respect, the heath sector will implement seven flagship projects that will be transformational, high-impact and instrumental in addressing, over the next five years, the challenges faced by the sector. The flagship projects are as follows:

Social health protection. The main objective is to enhance social health protection for the population by expanding financing schemes and to provide a harmonized benefit package for targeted populations.

Health infrastructure. The main objective is to develop a robust system of health infrastructure.

Expansion of access to specialized health care (and medical tourism). The main objectives are to market Kenya as a hub for the provision of specialized health-care services at the local, regional and international levels.

Community high-impact interventions. The Government, in partnership with other stakeholders, will implement interventions that have been evaluated to be of high impact for communities. This flagship project will be implemented in line with the 2006 community health strategy. The components are: integrated community case management at the national level; the strengthening of community health units; and the scaling up of nutrition interventions at the community level.

Digital health: leveraging the digital revolution. The main objective is to enhance the delivery of health services through digital platforms. Digital health technologies, ranging from wearable sensors and portable diagnostic technologies to telemedicine tools and mobile-health applications, have the potential to transform health-care delivery systems by empowering consumers to play an active role in their care and to define what services are important to them.

Human resources for health. The main objective is to build the capacity of health workers thereby increasing the pool of skilled workers in the health sector and improving health outcomes.

Improvement of quality of care/patient and health worker safety. The main objectives are as stated, to improve the quality of care for patients and to enhance the safety of patients and health workers.

1.8 Kenya Health Sector Strategic Plan and the country's universal health coverage aspirations

As was mentioned above, the Government of Kenya is committed to achieving UHC as one of the pillars of its "Big Four" agenda. This will ensure that all individuals and communities in Kenya have access to good-quality essential health services without suffering from financial hardship. The country's aspirations in terms of UHC are shown in table 1.1. Improving access to and use of health services will enable Kenyans to contribute more actively and productively to their families, communities and society at large and to the economic development of the country. UHC is expected to draw together health and development efforts and contribute to poverty reduction.

The focuses of UHC are PHC and the improvement of health systems. These call for the strengthening of the health system as a whole and an increase in investment. There will also be a need to reform the architecture that determines how the different parts of the health system operate and interact with one another in order to meet priority health needs through integrated, people-centred services.

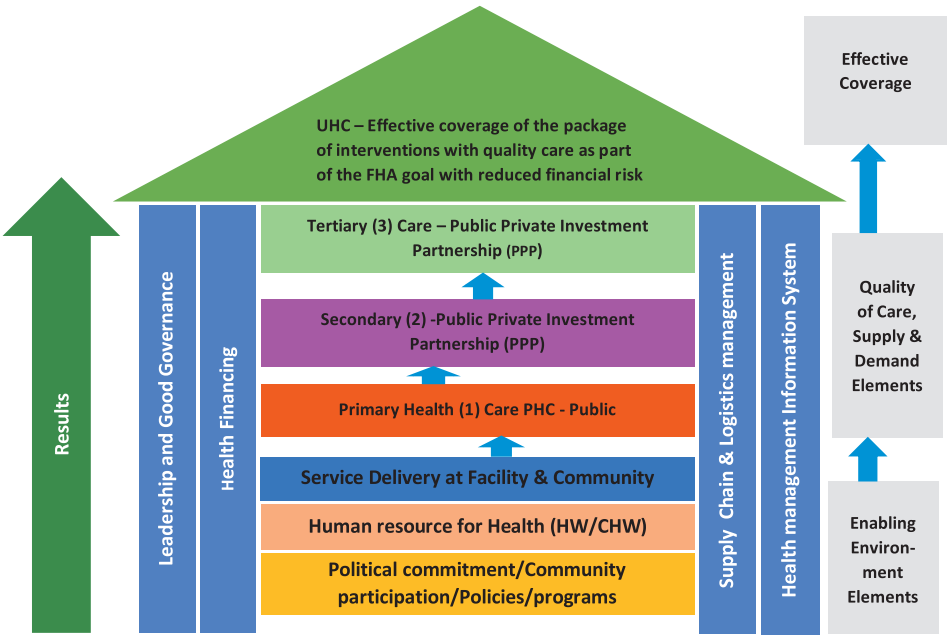
PHC is the foundation of any health system, ensuring all people stay healthy and receive care when they need it. When PHC works, people and families are connected with trusted health workers and support systems throughout their lives and have access to comprehensive services that range from family planning and routine immunizations to the treatment of illnesses and the management of chronic conditions. Good PHC empowers individuals, families and communities to be active decision makers about their own health. The Strategic Plan places emphasis on accelerating efforts to achieve UHC, with PHC as the focus, as shown in figure 1.3.

Table 1.1: Universal health coverage aspirations of Kenya

HEALTH SECTOR TARGETS		
Availability of essential services	**Coverage of essential services**	**Financial risk protection**
• 100 per cent of primary care facilities and hospitals provide the full essential health-care package • 100 per cent of the population lives within 5 km of a health-care unit	• At least 80 per cent of hard-to-reach populations use essential-package interventions for the prevention and control of communicable and non-communicable conditions • At least 80 per cent of expected use of essential curative interventions is attained in hard-to-reach populations	• 100 per cent of the population has health insuranutlment For at least 90 per cent of the population, household health expenses do not exceed 40 per cent of essential expenditure • utOut-of-pocket expenditure is reduced by 50 per cent

Source: Ministry of Health (2018a).

Figure 1.3: Overview of the Kenya Health Sector Strategic Plan and universal health coverage – conceptual framework



Source: Ministry of Health (2018a).

1.9 Devolution of health services

The Constitution of 2010 (Fourth Schedule) established a two-tier health system, defining the distribution of functions between the national and county governments. The national level deals with: health policy; national referral hospitals; capacity-building and technical assistance to counties. The county level focuses on: county health facilities and pharmacies; ambulance services; promotion of PHC; licensing and control of the sale of food in public places; veterinary services; cemeteries, funeral parlours and crematoriums; and refuse removal, refuse dumps and solid waste disposal. This new scenario has led to concerted efforts to restructure human resource management, infrastructure development and maintenance, health financing, donor funding and partnerships, among others.

The devolved system calls for close collaboration, coordination, linkages and cooperation between the two levels of government. Relevant health sector laws, legislation, policies and regulation therefore need to be formulated and implemented to guide the devolution of health services and implementation of related programmes.

1.10 Implementation of the Kenya Health Sector Strategic Plan 2018–2023

The Strategic Plan provides the overall framework for the health sector in the medium term, in terms of direction, investment priorities and guidance. On the basis of the strategic plan, the sector will develop operational documents to guide the different priority areas of implementation. These operational documents include the following:

- **Universal health coverage road map.** This sets out the country's UHC goal and aspirations and the strategic interventions and priority areas of implementation needed to achieve that goal.
- **Kenya Essential Package for Health.** This is a package of services to which people are entitled at the different levels of care and which guides achievement of UHC and safeguards the right to health.
- **Human Resources for Health Norms and Standards** (Ministry of Health, 2014c) and the **Health Sector Infrastructure Norms and Standards.** These define the human

resource and infrastructure norms and standards needed for delivery of the Kenya Essential Package for Health.

- **Kenya Health Sector Partnership and Coordination Framework.** This is a guide for the alignment and harmonization of support for health actors at the national and county levels to improve the effectiveness of the delivery of the Kenya Essential Package for Health.
- **Monitoring and Evaluation Framework for the health sector.** This describes the indicators and measurement methods to be used in tracking and appraising progress towards achievement of the targets of the Strategic Plan.
- **County-specific health strategies.** These define county-specific targets and investment priorities for implementation on the basis of the extent of the disease burden, disease patterns, other county-specific elements and strategic priorities.
- **Programme-specific strategies.** These bring together programme-specific targets and investment priorities for implementation.
- **Semi-autonomous government agency strategies.** These are the strategic plans of the semi-autonomous government agencies that define their targets and investment priorities in contributing to achievement of the priorities of the Strategic Plan.

1.11 Development of the Kenya Health Sector Strategic Plan 2018–2023

In July 2017, the Ministry of Health began to develop the Kenya Health Sector Strategic Plan 2018–2023 to succeed the Kenya Health Sector Strategic and Investment Plan July 2014–June 2018. The strategic plan 2018–2023 was developed through a comprehensive consultative process based on the procedure for development of strategic plans documented in the quality management system of the Ministry of Health. Eight thematic groups were formed, according to the investment areas of the Kenya Health Policy 2014–2030. The groups comprised representatives of all key stakeholders and were given clear terms of reference.

The drafting of the strategic plan was carried out by the various thematic groups. Comprehensive and structured consultations then took place on the draft strategy at various levels, including:

a. At the national Ministry of Health level;

b. At the county level;

c. Among key health-sector stakeholders.

The draft Kenya Health Sector Strategic Plan 2018–2023 was subjected to the Joint Assessment of National Health Strategies approach, supported by WHO, and various recommendations were incorporated. Stakeholders validated the final strategy, which was then endorsed by the Cabinet Secretary for Health and disseminated for implementation.

Chapter Two: Situation Analysis

2.1 Introduction

It is becoming increasingly apparent that, without an understanding of the contexts in which people live, it is not possible to provide health services that meet people's needs. Many contextual barriers are impeding people's use of available health services. A people-centred approach based on the social determinants of health is needed in order to ensure that service provision focuses on all members of society, so that the available services are actually used and the desired health outcomes achieved.

Owing to these contextual global and regional issues, the redesign of health services in Kenya focus improving health security and achieving UHC. Efforts to improve health security focus on reshaping and equipping health systems to ensure they are not only able to provide the required essential health services, but also resilient enough to absorb shocks caused by disease epidemics or disasters. On the other hand effort to achieve UHC focus on ensuring that the country is able to:

(i) Identify, and plan to make available, the full range of essential health and related services required by its population.

(ii) Progressively increase coverage by these essential health and related services by addressing issues of access to and quality of care.

(iii) Progressively reduce the financial barriers that population face when trying to access essential health and related services until there is equity and financial-risk protection.

This chapter shows the results of reviews of the performance of the health sector within the framework of implementation of the Kenya Health Policy 2014–2030(ministry of Health 2014a). It provides analysis of the sector's performance by policy objective and investment area. The health sector has undertaken several detailed and exhaustive reviews to assess progress and provide evidence that can inform the direction of and priorities within the Strategic Plan.

2.2 Summary of the results of the health sector performance reviews 2014–2018

Review of the previous strategy was mostly informed by review of routine data leaning heavily on the DHIS2, given that a Demographic Health Survey (KDHS) had not been undertaken during the implementation period.

Overall, significant progress was made on many indicators while a number of indicators either stagnated or declined within the implementation period. Although impact and health outcome indicators relied on modelled data, progress was generally slow for most of these indictors, which comprise mostly of mortality estimates.

Performance on Eliminate communicable conditions was good for most of the indicators while all indicators in Halt and reverse the rising burden of non-communicable conditions and mental disorders performed below set targets. Performance was mixed for indictors under Minimize exposure to health risk factors, improving access to services and improving quality of care. The worst performing set of indicators were under and provide essential health care and Strengthen collaboration with private and other sectors.

A detailed summary of the results of health sector performance reviews 2014–2018 by indicator is shown in Annex A

2.3 Burden of disease

2.3.1 Trends in mortality

During the period of implementation of the Kenyan Health Sector Strategic Plan 2014–2018, life expectancy increased from 60 years in 2013 to 63 years in 2016.

The health sector has made remarkable progress in reducing the burden of disease as can be seen in table 2.1. This progress includes a 15 per cent reduction of mortality in children under 5, a 16 per cent reduction in infant mortality and a 29 per cent reduction in maternal mortality, over the same period according to the Global Burden of Disease Study 2017. The newborn mortality rate has however stagnated, with minimal reduction, accounting for almost 56 per cent of the mortality in children under 5.

The estimates of the Global Burden of Disease Study show that HIV, lower-respiratory-tract infections and diarrhoea were the top three causes of premature deaths in Kenya between 2007 and 2017. Non-communicable conditions, including diabetes mellitus, ischemic heart disease and cirrhosis, have increasingly been contributing to mortality rates since 2013.

Routinely collected data in Kenya show a similar pattern (see table 2.2), with HIV as the leading cause of death, followed by lower-respiratory-tract infections and diarrhoea.

Table 2.1: Trends in mortality

	Kenya Demographic and Health Survey 2014	Global Burden of Disease Study 2017	Percentage change
Under-5 mortality rate per 1,000 live births	52	44	-15
Infant mortality rate per 1,000 live births	39	32.6	-16
Maternal mortality rate per 100,000 live births	362	257.6	-29

Source: Kenya National Bureau of Statistics and others (2015); Institute for Health Metrics and Evaluation (2017).

Table 2.2: Underlying causes of death

20 leading causes of inpatient mortality, both sexes, all ages, 2018			
		Number of deaths	Percentage of the total
1	HIV	10,729	11.1
2	Lower-respiratory-tract infections	8,004	8.2
3	Diarrhoeal diseases	6,248	6.4
4	Malaria	5,168	5.3
5	TB	5,073	5.2
6	Birth asphyxia and birth trauma	4,878	5.0
7	Other digestive diseases	3,376	3.5
8	Diabetes mellitus	3,214	3.3
9	Road traffic accidents	3,103	3.2
10	Iron deficiency/anaemia	3,028	3.1
11	Cirrhosis of the liver	2,778	2.9
12	Other conditions occurring during the perinatal period	2,478	2.6
13	Cerebrovascular disease	2,306	2.4
14	Hypertensive disease	2,254	2.3
15	Meningitis	1,893	2.0

Source: Routine Health facility data (DHIS2)

The Kenya Mortality Study 2017 (Ministry of Health, 2018d), covering mortalities between 2012 and 2016, also showed that 95 per cent of the deaths were due to preventable diseases, with HIV, lower-respiratory-tract infections and malaria causing 12, 9 and 5 per cent, respectively, of all deaths. The report also showed that more males than females were dying at almost all ages.

2.3.2 Trends in morbidity

Disability-adjusted life years

Disability-adjusted life years (DALYs) are the number of years of life lost owing to a given disease and the years lived with disease-induced disability. HIV, diarrhoea and lower-respiratory-tract infections were still the leading cause of DALYs in 2017 as shown in figure 2.1.

Significant gains have been made in the overall standard of health of the Kenyan population, with DALYs decreasing from 41,905 to 36,950 per 100,000 people between 2013 and 2017 (Institute for Health Metrics and Evaluation, 2017).

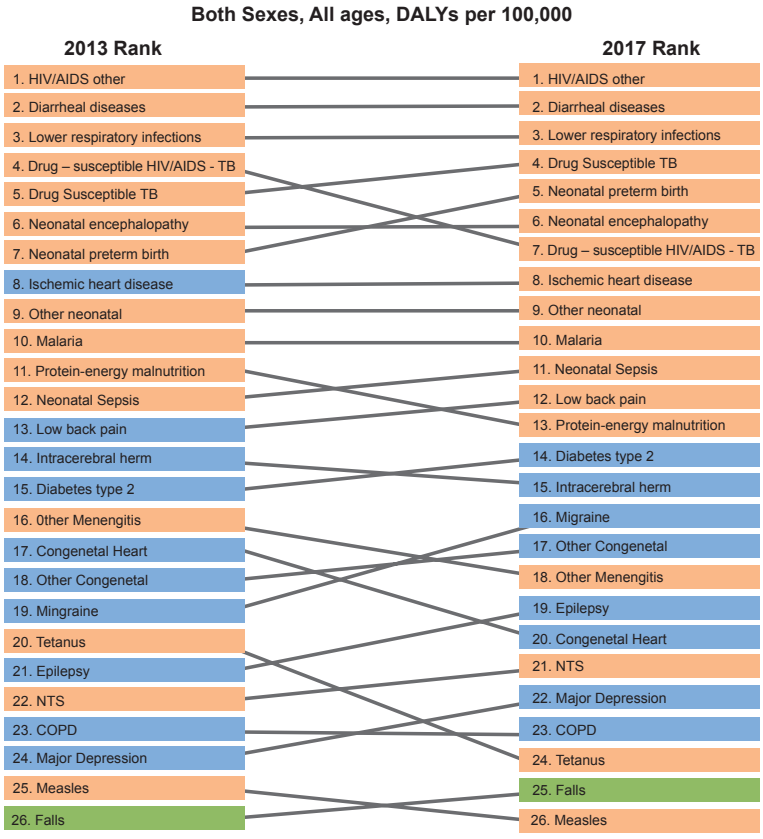
Although DALYs have been declining overall, the number of years lived with disability has remained relatively constant, increasing slightly from 8,753 to 8,887 per 100,000 people between 2013 and 2017. This increasing burden of morbidity in Kenya, along with decreasing mortality, means that more people are losing years of healthy life to disabilities caused by non-fatal diseases.

2.4 Health risk factors

Health risk factors in Kenya include unsafe sex, suboptimal breastfeeding, alcohol and tobacco use, obesity and physical inactivity. People are, however, increasingly adopting safe sex practices, which can be attributed to steady improvements in communities' knowledge of and attitudes towards sexually transmitted infections and conditions.

Tobacco use remains high, particularly among productive populations in urban areas and among males. One in five males aged between 18 and 29 and one in two males aged between

Figure 2.1: Disability-adjusted life years in Kenya, by disability (2013 and 2017)



Source: Institute for Health Metrics and Evaluation Kenya (2017).

40 and 49 use tobacco products; overall, 13 per cent of Kenyans report some form of tobacco use. The same pattern is seen in the use of alcohol products, especially the impure alcohol products found mainly in rural areas. A total of 19 per cent said that they were current drinkers of alcohol, 94 per cent consumed fewer than five servings of fruit and vegetables per day. Obesity and overweight in women increased, with overweight rising from 25 to 35 per cent and obesity increasing from 7 to 10 per cent between 2008 and 2014. Overall, 28 per cent of the adult population is overweight or obese. Women are more affected, with 25 and 14 per cent of them overweight and obese, respectively, compared with 13 and 4.3 per cent of men. Overweight and obesity have contributed to the increase in non-communicable conditions.

Overall, behavioural risk factors are the leading causes of DALYs, followed by environmental and metabolic risk factors as shown in figure 2.2.

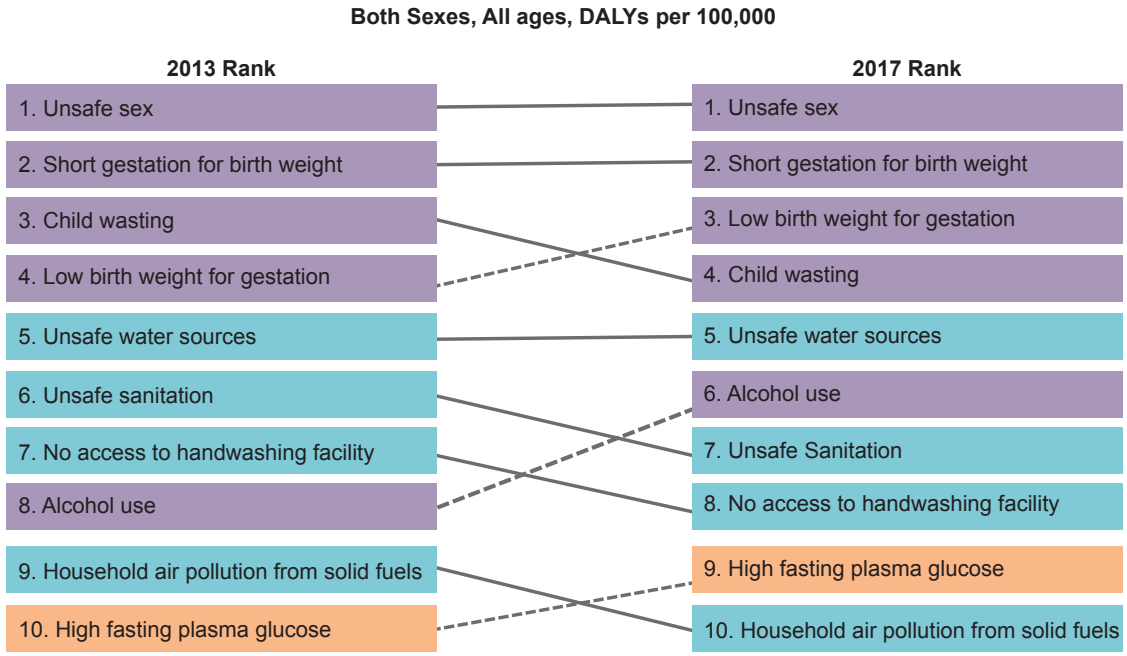
2.5 State of health services and health status

The midterm review of the first plan, the Kenya Health Sector Strategic and Investment Plan 2014–2018, revealed a significant increase in access to and use of health services. These changes were attributed in part to the expansion of health infrastructure and the reduction of financial barriers through the provision of free PHC services, respectively.

The following sections review the progress in relation to the six policy objectives of the Kenya Health Policy 2014–2030, namely:

- Policy objective 1: Eliminate communicable conditions
- Policy objective 2: Halt and reverse the rising burden of non-communicable conditions and mental disorders
- Policy objective 3: Reduce the burden of violence and injuries
- Policy objective 4: Provide essential health care
- Policy objective 5: Minimize exposure to health risk factors
- Policy objective 6: Strengthen collaboration with the private sector and other sectors that have an impact on health

Figure 2.2: Disability-adjusted life years in Kenya, by risk factor (2013 and 2017)



Source: Institute for Health Metrics and Evaluation Kenya (2017)

2.5.1 Eliminate communicable conditions (policy objective 1)

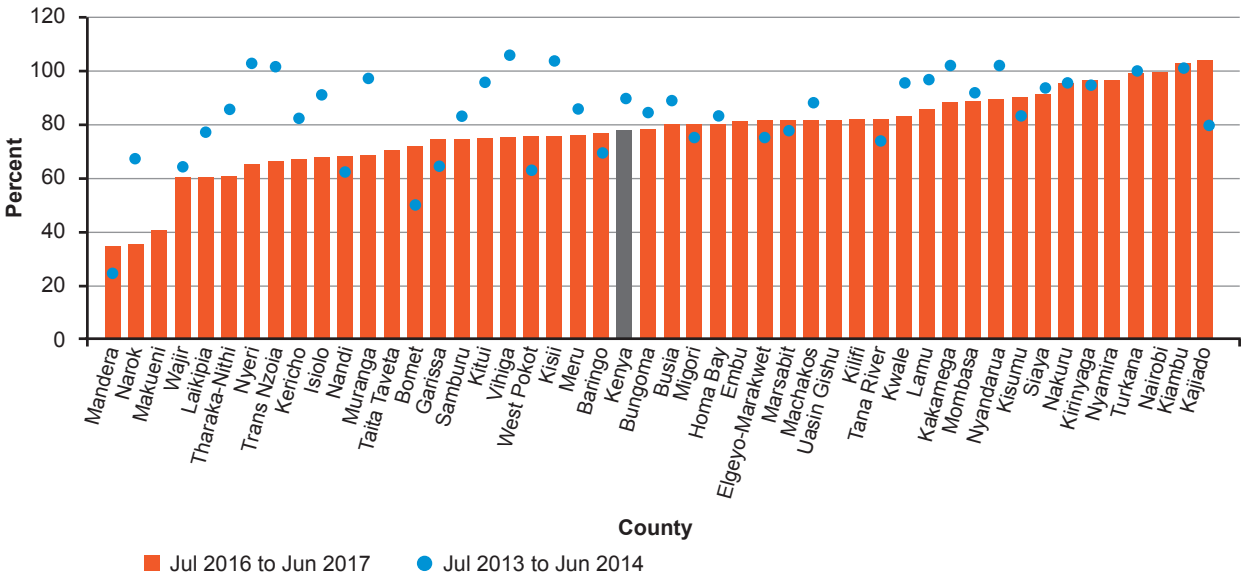
The overall proportion of fully immunized children below 1 year of age dropped from 90 per cent in 2013/14 to less than 80 per cent in 2016/17. The same pattern can be seen in most counties (see figure 2.3). In Nyeri, the figure dropped from 100 to 65 per cent, in Murang'a from 100 to 70 per cent and in Vihiga from 100 to less than 80 per cent. A few counties, however, such as Mandera, Bomet and Uasin Gishu, saw an increase in the proportion of children under 1 who were fully immunized. The data show that 34 of the 47 counties had lower levels of full immunization coverage in 2016/17 than in 2013/14.

Routine immunization coverage of children aged 12 to 23 months has stagnated over the past three years with about 71 per cent covered by DPT3/Penta3 (World Health Organization/United Nations Children's Fund, 2017). Between 2013/14 and 2015/16, Penta3 and measles immunization coverage reportedly declined from 89 per cent to 71 and 68 per cent, respectively, while the proportion of fully immunized children declined from 83 per cent to less than 71 per cent.

The prevalence of **HIV** among people aged 15 to 49 is estimated to have dropped from 5.9 to 4.8 per cent between 2015 (National AIDS and Sexually Transmitted Infections Control Programme, 2015) and 2017 (Joint United Nations Programme on HIV and AIDS, 2017). New HIV infections among the adult population also declined, from 71,034 to 45,000, but new HIV infections among children under 14 years increased slightly from 6,613 to 8,000. In 2017, there were 1.1 million people living with HIV enrolled on antiretroviral treatment in Kenya, which is coverage of 75 per cent. Despite the significant strides in the response to HIV and AIDS, however, adolescents remain a vulnerable group, with 29 per cent of all new HIV infections recorded in adolescents and young people.

The first post-independence **TB** prevalence survey (Kenya **TB** prevalence survey, 2016) revealed that the true burden of TB in Kenya was 426 cases per 100,000 people. It is estimated that 158,000 persons fell ill with TB in 2017, yet only about 85,518 were notified. This means, therefore, that about 50 per cent of TB cases were not diagnosed, treated and or notified. Mortality among people with TB is high, with an estimated 43,000 deaths in 2017. Most of the notified TB cases were in males (64 per cent), while children under 15 years accounted for 9 per cent. Regarding drug-resistant TB, it is estimated that Kenya had 2,800 cases in 2017, of which only 577 were detected and notified.

Figure 2.3: Full immunization coverage, by county (2013/14 and 2016/17)



Source: Routine Health facility data (DHIS2)

Malaria remains a significant public health concern in Kenya (National Malaria Control Programme, 2016). Three-quarters of the population are at risk of infection and the actual prevalence is highest, at 11 per cent, among children aged 10–14 years. The burden of the disease varies across the country. Kenya has experienced a decrease in the prevalence of malaria among children aged 6 months to 14 years in the lake endemic areas, from 38 per cent in 2010 to 27 per cent in 2015, and a slight increase in prevalence in the coastal endemic areas, from 4 per cent to 8 per cent over the same period. The country continues to make progress in malaria control through multifaceted approaches comprising prevention and treatment. These interventions include the distribution of long-lasting insecticide-treated nets, intermittent preventive treatment in pregnancy and diagnosis and management of malaria cases.

Major interventions were also carried out in the control of **neglected tropical diseases.** Approximately 13 million school-age children were dewormed, while mass treatment of lymphatic filariasis was conducted in 2015 and 2016 in 23 endemic subcounties, achieving 63 per cent treatment coverage. Mass administration of-anti-trachoma drugs, targeting 14 million people, achieved national coverage of 79 per cent in 2015.

Figure 2.4 shows the main achievements in terms of eliminating communicable conditions.

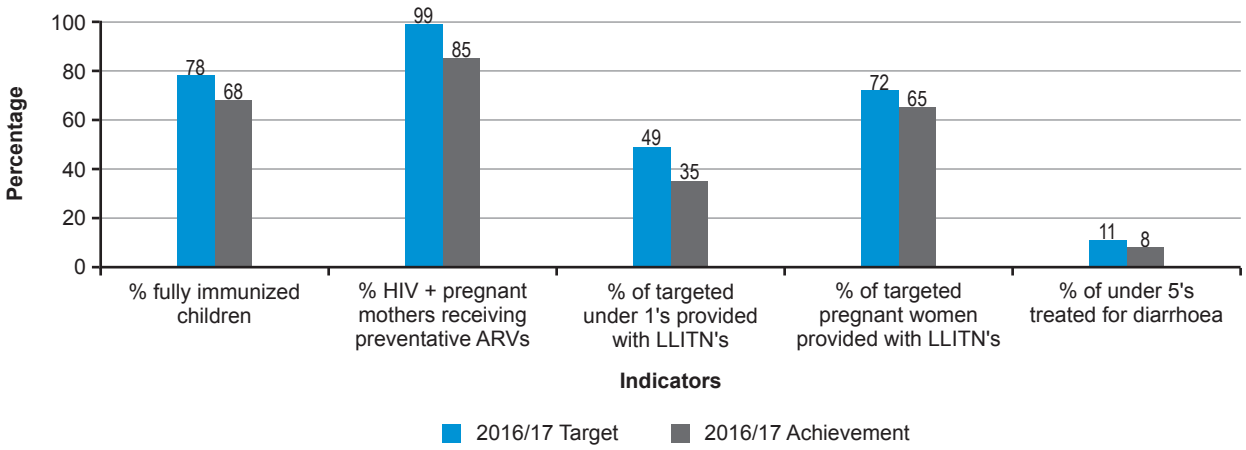
To strengthen **disease surveillance and outbreak response,** the Government has established the Public Health Emergency Operations Centre. Its role is to develop, strengthen and maintain the capacity to respond effectively to public health emergencies. Kenya experienced outbreaks of various diseases, such as cholera, chikungunya and dengue, during the period covered by the Second Medium-Term Plan of the Kenya Vision 2030.

2.5.2 Halt and reverse the rising burden of non-communicable conditions and mental disorders (policy objective 2)

Kenya is undergoing an epidemiological transition marked by a decline in morbidity and mortality caused by communicable conditions and an increase in the burden of non-communicable conditions. Non-communicable conditions are estimated to account for 27 per cent of all deaths, with cancers causing 10 per cent and cardiovascular diseases 8 per cent.

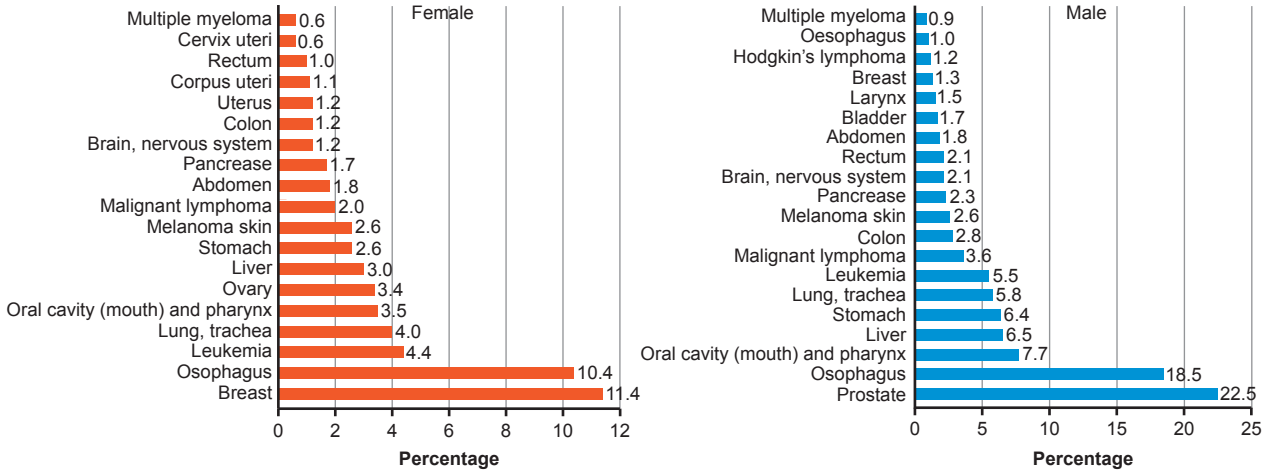
Cancer accounts for 4 per cent of overall national mortality. Prevalence of cancer has been rising, from fewer than 200 cases per 100,000 people in 1990 to 250 cases per 100,000 people in 2017. An estimated 40,000 new cases are diagnosed every year and there are approximately 20,000 deaths. Cancers of the uterus, breast and oesophagus are the leading cancers among females, while cancers of

Figure 2.4: Progress towards the targets for eliminating communicable conditions (2016/17)



Source: Routine Health facility data (DHIS2)

Figure 2.5: Cases of cancer (2017/18)



Source: Routine Health facility data (DHIS2).

the prostrate, oesophagus and stomach are the most prevalent among males as shown in figure 2.5.

Most cancer cases, 80 per cent, are diagnosed at a late stage, leading to poor treatment outcomes. In the past five years, preventive measures to reduce the incidence of cancer have been implemented, including education on how to modify risk factors, vaccination and the scaling up of screening. Efforts to address late diagnosis are increasingly being addressed by improvements in the diagnostic capacity of the National Oncology Biochemistry Reference Laboratory, and there are plans to set up a sample referral network.

Decentralization of cancer management is already in progress with advanced plans to establish four regional, comprehensive cancer management centres to decongest the two national referral hospitals and improve access to cancer care in the country. The National Cancer Institute was established in 2015 under the Cancer Prevention and Control Act 2012 (National Council for Law Reporting, 2012a) to provide oversight and regulation, while a national cancer control programme was established in 2016 to provide policy guidance.

The prevalence of diabetes mellitus among adults is 2 per cent, but it is estimated that only 41 per cent of actual cases have been diagnosed. Effective treatment coverage is 7 per cent. It is estimated that almost one quarter of the adult population (23 per cent) suffer from raised blood pressure, but only 20 per cent have been diagnosed. Effective treatment coverage for hypertension is only 4 per cent.

2.5.3 Reduce the burden of violence and injuries (policy objective 3)

STEPS 2015 revealed that 10 per cent of Kenyans had been seriously injured in the preceding 12 months, while another 4 per cent had been involved in a violent incident. The leading injuries were cuts (47.6 per cent), injuries caused by falls (34.0 per cent) and road traffic injuries (5.8 per cent).

The Ministry of Health has developed the Kenya National Violence and Injury Prevention and Control Action Plan 2018–2022 (Ministry of Health, 2017), the goal of which is to strengthen the role of the health sector in reducing the burden of violence and injuries and its consequences, including death and disability, by implementing evidence-based prevention and control policies and programmes. Within the past five years, through the Managed Equipment Services project, selected health facilities have been provided with the equipment needed for diagnosis and management of trauma. In addition, health-care workers are being continuously trained to be able to handle trauma cases in the different levels of health facility. The DHIS2 outpatient tool was improved in 2016 to capture more

disaggregated data on the different types of injuries.

The indicators of the Kenya Health Sector Strategic and Investment Plan 2014–2018 were based on outpatient and inpatient data specific to gender-based violence, road traffic injuries and other injuries. Reliable data for the proper monitoring of the indicators of this objective, however, are not adequately available. Data from the DHIS2 tool show a modest increase in the overall number of cases of injuries attributable to violence.

Gender-based violence is a major human rights violation that tends disproportionally to affect women, not only in Kenya, but worldwide. The Ministry of Health has been working together with stakeholders such as the National Gender Equality Commission, county governments, the police service and others to strengthen the legislative and policy frameworks relating to gender-based violence. The Ministry of Health has been training health-care workers and community health volunteers to detect and manage victims of gender-based violence. Statistics from the Kenya Demographic and Household Survey 2014 revealed that 44 and 14 per cent of women had at some time experienced physical violence and sexual violence, respectively (see table 2.3). Cases of gender-based violence increased over implementation of the first strategic plan from 4,977 in 2014, to a peak of 7,606 in 2017, and 6,779 in 2018. The overall number of rape survivors increased that period, although this could be attributed to better reporting.

Table 2.3: Gender-based violence

	Percentage who have experienced physical violence	Percentage who have experienced sexual violence
Women		
In lifetime	45	14
In past 12 months	20	7.8
Men		
In lifetime	44	6
In past 12 months	12	2.3

Source: Kenya Demographic and Health Survey 2014.

Routine data from 2018 indicates that road traffic accidents were among the top ten leading causes of mortality in Kenya, accounting for 3.2 per cent of hospital deaths in Kenya in 2017/18. New outpatient cases attributed to road traffic accidents decreased from 29,571 in 2016 to 20,255 in 2018, despite an increase in motor vehicles in Kenya over the same period. The number of deaths due to road traffic injuries is approximately 3,000 annually, although this is an underestimation as it refers only to fatalities that occur at the scene of a crash and not subsequently at health facilities. The National Transport and Safety Authority is the lead agency for road safety in the country and is involved in coordinating various agencies, including the Ministry of Health, in improving road safety.

In terms of new outpatient road traffic injuries, for which the 2018 target was 3 per cent, the actual figure in 2017 stood at 2.5 per cent, up slightly from the 2013 revised baseline of 2.3 per cent.

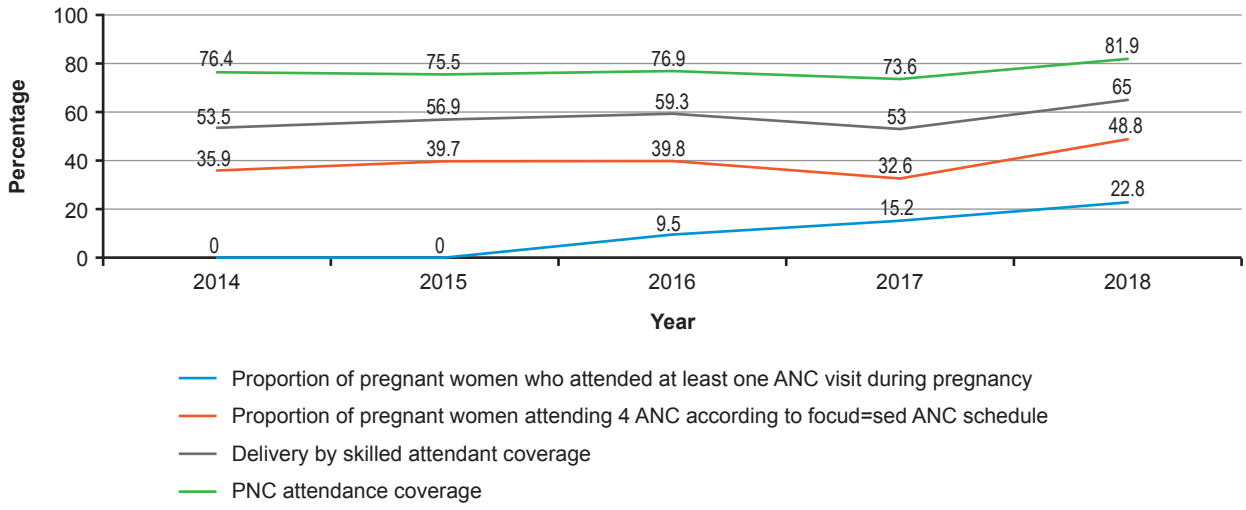
2.5.4 Provide essential health care (policy objective 4)

There was a general overall improvement in the coverage of maternal and newborn health services from 2014 to 2018, as shown in figure 2.6.

There was slight decrease in 2017 in the proportion of women that had antenatal-care visits and in the proportion of skilled deliveries. This is attributed to human resource issues. Coverage of postnatal care within 48 hours was actively reported as of 2016, owing to the introduction and implementation of the guidelines on postnatal care. In 2018, the coverage was nearly 23 per cent.

The proportion of women that had four antenatal-care visits decreased at the national level, from about 50 per cent to about 40 per cent, and in most counties, between 2016/17 and 2013/14. The counties with the highest reduction in the conduct of four antenatal-care visits include Nyeri, Makueni, Kilifi and Embu. Some counties recorded a great improvement in the conduct of four antenatal

Figure 2.6: Maternal and newborn health coverage indicators (2014–2018)



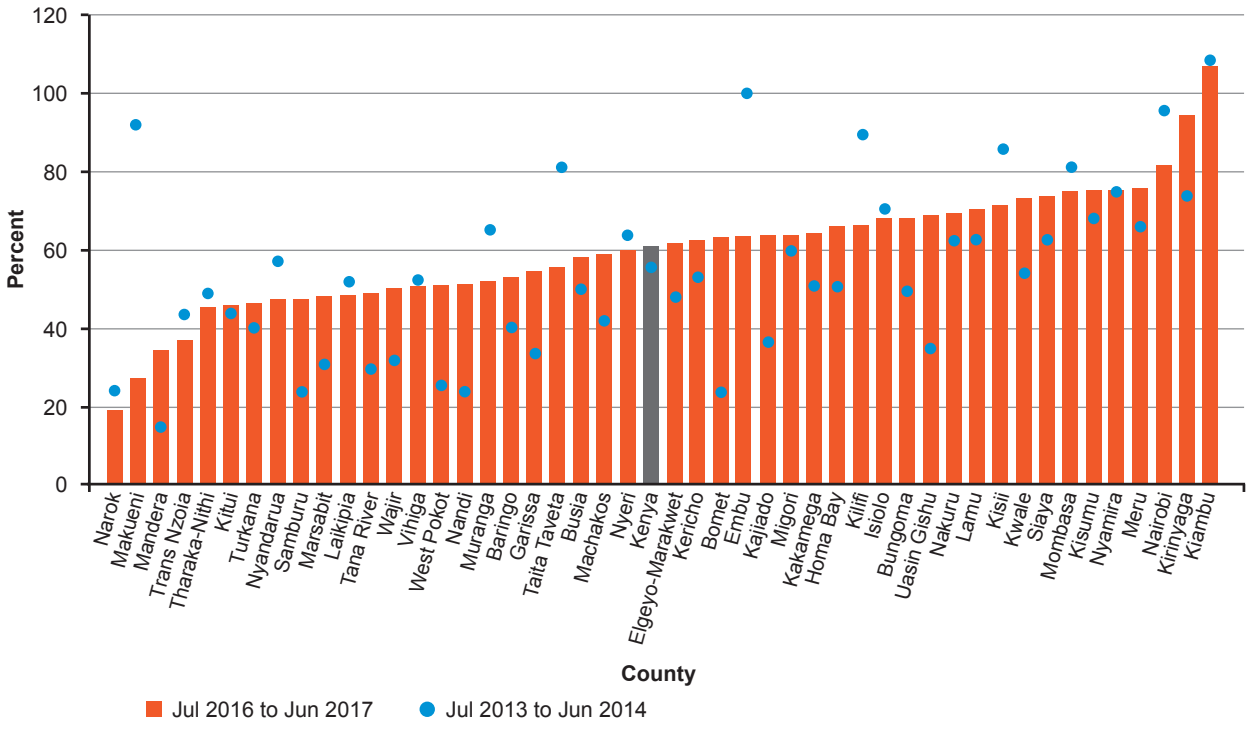
Source: Routine Health facility data (DHIS2).

visits, mainly in the arid and semi-arid lands, for example Laikipia, Mandera, Turkana and Marsabit, which saw increases in the proportion of women that had four antenatal-care visits of 21, 16, 15.6 and 14.8 per cent, respectively.

The proportion of deliveries attended by a skilled health worker (against the expected), remained relatively constant between 2013/14 and 2016/17, although there were wide disparities across the counties, where the proportion ranged from less than 20 per cent in Narok to more than 100 per cent in Kiambu (see figure 2.7).

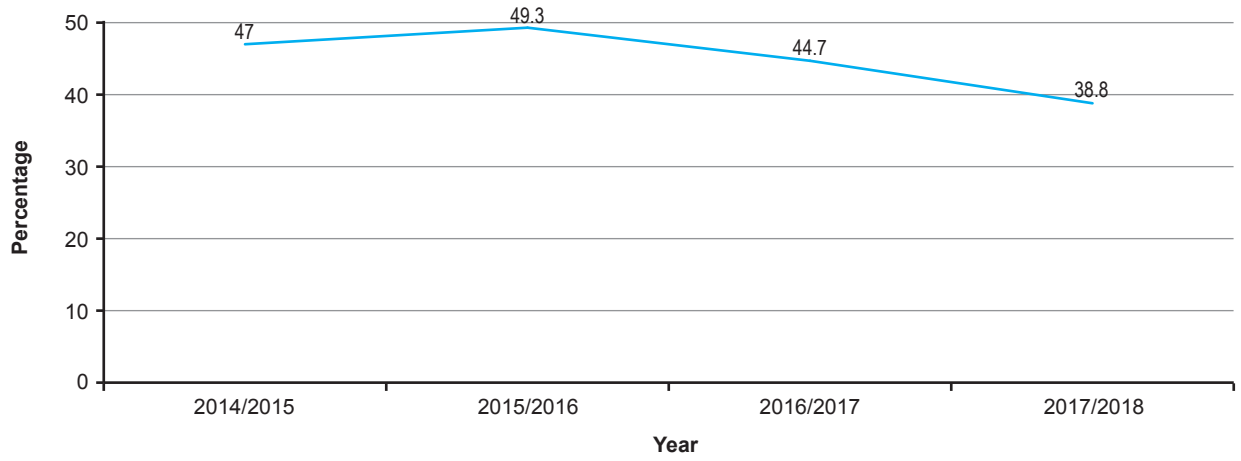
Routine data (DHIS2) shows that as at 2018, the proportion of Women of reproductive age using FP products has been declining

Figure 2.7: Coverage of skilled-delivery services, by county (2013/14 and 2016/17)



Source: Routine Health facility data (DHIS2)

Figure 2.8: Woman of reproductive age using FP products (2015/16 and 2017/18)

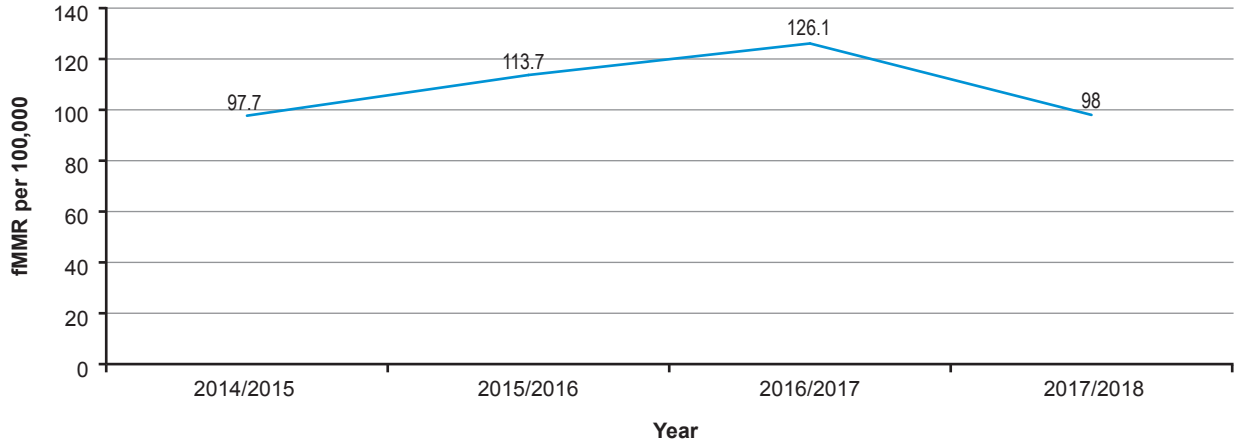


Source: Routine Health facility data (DHIS2)

from 2013 to 2018 as shown in figure 2.8. This may be attributed to reduced funding for FP commodities with devolution as the counties were expected to take up funding purchase of the commodities. There has been variation of FP prioritization and funding allocation, with increased stock outs across different counties. Overall, modern contraceptive prevalence rate (mCPR) as at 2018/19 was estimated to be 58% based on modelled population survey data.

From the year 2014/15, there was a rise in facility-based maternal mortality ratio from 97.7/100,000 to 126.1/100,000 in 2016/17. This was attributed mainly to improvement in data recording, notification and audits of maternal mortality in the facilities[1]. However, from 2017, facility based mortality ratio has been declining (Figure 2.9). This has been attributed mainly to implementation of free maternity services and the beyond zero initiative. There has also been significant improvement in data recording, notification and audits of maternal mortality in the facilities as a result of increased use of the DHIS2 data.

Figure 2.9: Facility-based maternal mortality rate (2014–2018)



Source: Routine Health facility data (DHIS2)

1 District Health Information System (DHSI2), 2018.

The percentage of pregnancies in adolescents (10–19 years) decreased slightly, from 30 per cent of total pregnancies in 2016/17 to 28 per cent in 2017/18. The proportion of adolescent maternal deaths among the total maternal deaths also went down, from 41 per cent in 2016/17 to 30 per cent in 2017/18.

2.5.5 Minimize exposure to health risk factors (policy objective 5)

There was a general increase in breastfeeding at both the national and county levels, with exclusive breastfeeding increasing from less than 60 per cent in 2013/14 to nearly 80 per cent in 2016/17 (see figure 2.10). The counties with the greatest improvement include Kitui, Meru and Kisii, which moved from 45 to 100 per cent, 30 to 80 per cent and 30 to 60 per cent, respectively. The prevalence of exclusive breastfeeding, however, dropped in Bomet and Taita Taveta counties between 2013/14 and 2016/17, from 90 to 70 per cent and 60 to 50 per cent, respectively. In Busia and Murang'a counties it remained constant over the same period.

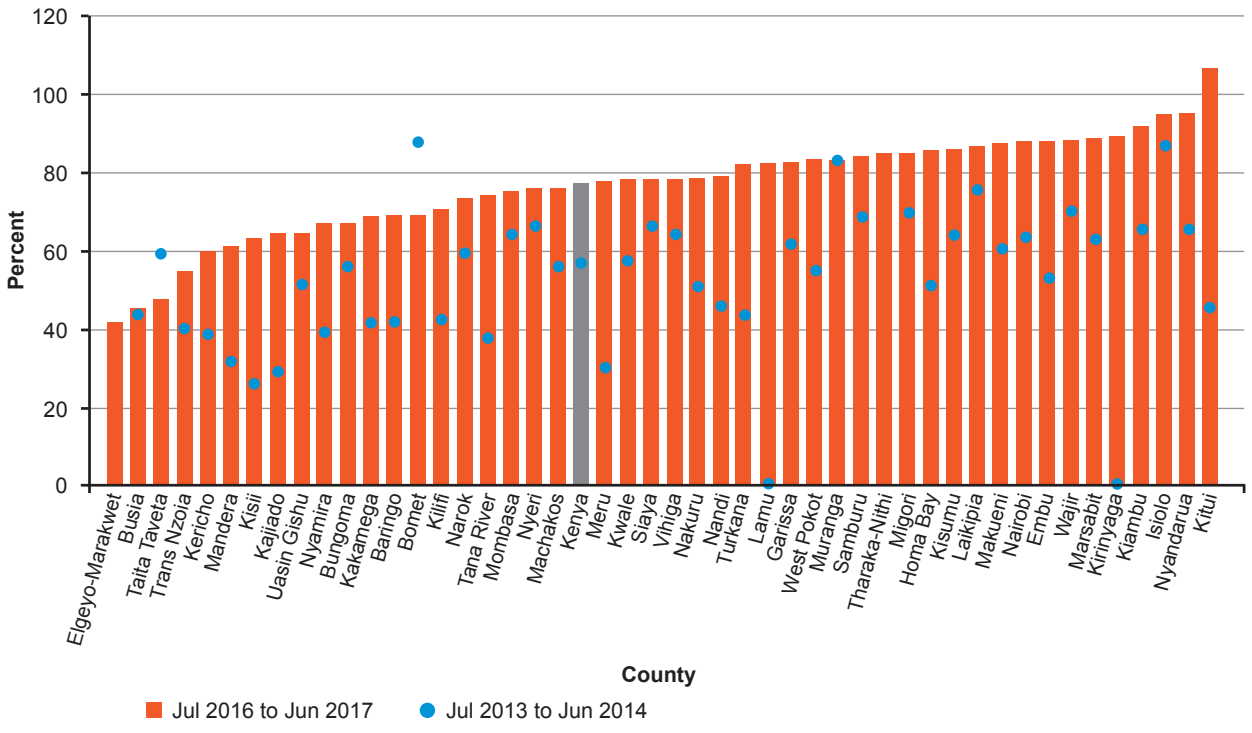
2.5.6 Strengthen collaboration private and other sectors that have an impact on health (policy objective 6)

There are reported improvements in the availability of **safe water sources and sanitation** facilities, particularly in rural areas. This, however, remains inequitable, and certain rural areas and some regions in the arid and semi-arid lands still have poor services.

The Kenya Environmental Sanitation and Hygiene Policy 2016–2030 (Ministry of Health, 2016) and its strategic plan were developed to provide guidance on the management of risk factors of concern for public health. A total of 37 counties are implementing the community-led total sanitation approach.

According to the Kenya Demographic and Health Survey 2014, since the previous survey of 2008/09, the **nutritional status of children** had improved, with stunting rates decreasing from 35 to 26 per cent, wasting rates from 7 to 4 per cent and underweight from 16 to 11 per cent.

Figure 2.10: Exclusive breastfeeding, by county (2013/14 and 2016/17)



Source: Routine Health facility data (DHIS2)

Current stunting rates are, however, still high (see figure 2.11). Undernourished children, both acutely and chronically, are found more in urban than in rural areas of the country. In addition, substantial regional disparities are noted across counties. Kilifi and Kitui counties having the highest proportions of stunted children, estimated at 46 per cent and 39 per cent, respectively. The highest proportions of wasted children are in Marsabit (16 per cent), Wajir (14 per cent) and Mandera (15 per cent).

The **nutritional status of women** has shown patterns of stagnation, with up to 1 per cent of adult women reported as stunted, and 12 per cent reported as having an unacceptably low BMI. Undernutrition is highest among women aged 15 to 19 years and in rural areas of the country.

According to the Kenya National Micronutrient Survey 2011 (Ministry of Health, 2011), 42 per cent of women suffered from **anaemia in pregnancy,** with only 8 per cent of women taking the minimum recommended number iron tablets. A total of 30 per cent did not take any iron supplements during pregnancy. **Anaemia in children** under the age of 5 stood at 26 per cent, while 22 per cent suffered from iron deficiency. **Vitamin A deficiency** and marginal vitamin A deficiency among school-aged children was recorded at 4 per cent and 34 per cent, respectively.

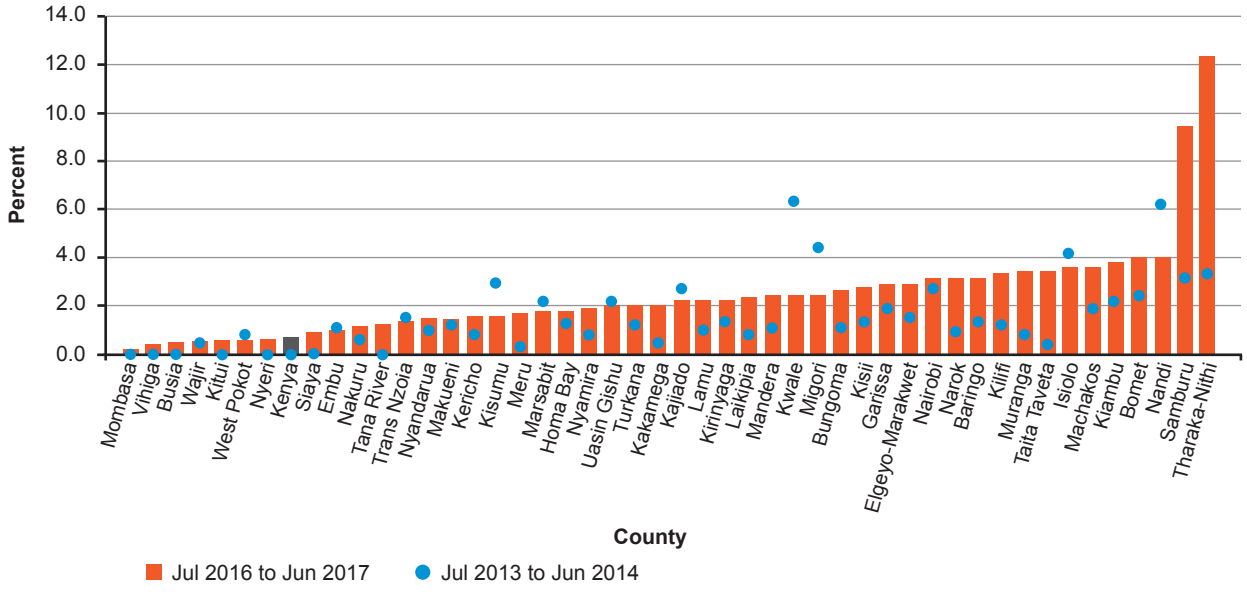
2.6 Strengthening the health system and providing universal health care

Given the desire to achieve the Sustainable Development Goals and their targets by 2030 and to effect UHC, there is an increasing focus on building robust, responsive and resilient health systems to meet the new challenges of the twenty-first century. The health sector has made good progress in conducting performance reviews, planning, budgeting and monitoring, which has led to evidence-informed decision-making.

The number of health-care facilities in the country increased from fewer than 9,000 in 2013 to 10,000 in 2016, pushing up the national average facility density from 1.9 to 2.2 health facilities per 10,000 people.

In terms of infrastructure, the Managed Equipment Services project of the Ministry of Health is contributing to the upgrade of 98 hospitals – two in each of the 47 counties and four at the national level. For more detail, see section 2.7.3 on infrastructure for health.

Figure 2.11: Proportion of stunted children, by county (2013/14 and 2016/17)



Source: Routine Health facility data (DHIS2)

In addition to an increase in the number of mass casualty incidents in Kenya, unregulated training of emergency medical personnel, poor coordination of major incident activities and a lack of standard operating procedures and emergency plans have all been shown to expose victims to increased morbidity and mortality. In response to these findings, emergency medicine was recognized by the Kenya Medical Practitioners and Dentists Council in 2017 as a speciality area. Similarly, clinical officers and nurses through their respective regulatory councils have had post-graduate qualifications in emergency care recognized. Nevertheless, most emergency departments are run by clinical officers, who work independently or alongside medical officers to provide emergency medical care. Severely ill patients have to await transfer to wards or specialist units to start receiving treatment.

Health systems have grown in resilience since the devolution of governance and following the multiple outbreaks of disease experienced in recent years. Frequent disasters in the country have a severe impact on service delivery, but so does industrial action, requiring there to be strategies to ensure continuity of service delivery in the wake of emergencies.

The goal of UHC is to ensure that all people obtain the health services that they need without suffering financial hardship in paying for them. It aims to provide health care and financial protection to all people in the country with three related objectives:

- **Equity of access –** everyone who needs health services should receive them, not simply those who can pay for them.
- **Quality of health services –** they need to be good enough to improve the health of those receiving them.
- **Financial-risk protection –** the cost of health care should not put people at risk of financial hardship.

Achievement of UHC, however, has remained elusive, owing to many challenges, including:

a. Unequal access to the different health care services as a result of poor distribution and use of resources;

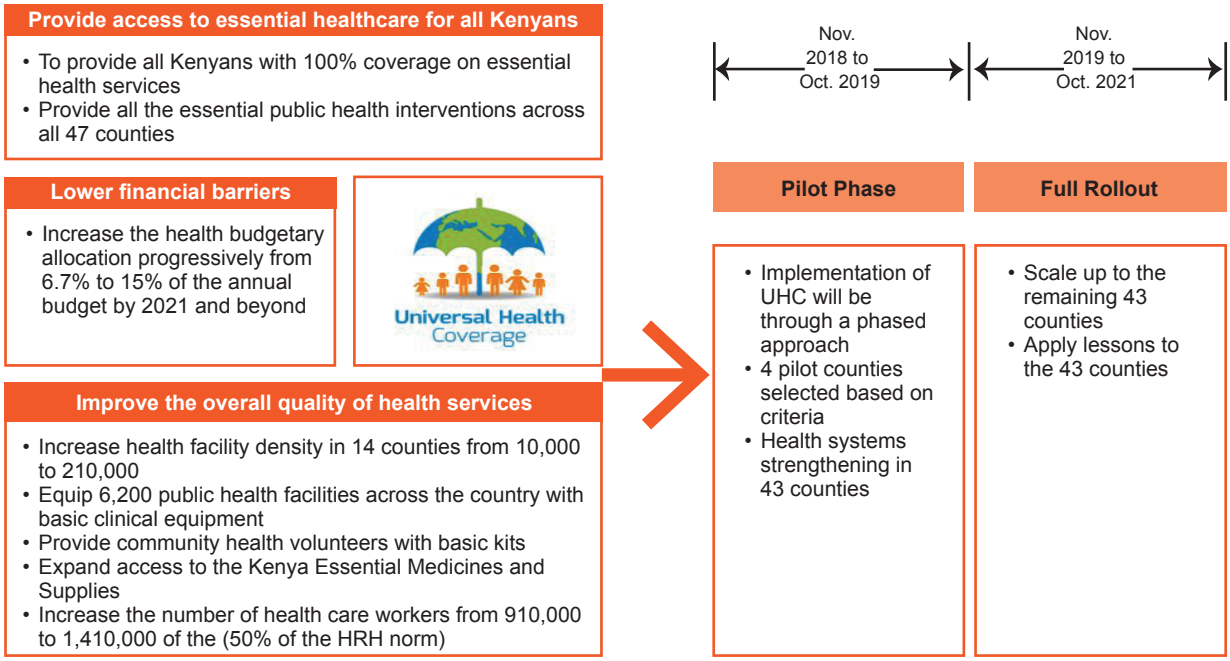
b. Geographical and social-cultural barriers that prevent many interventions from reaching the people who need them most;

c. The high costs associated with accessing and using the available services, which tend to drive households into poverty and limit their ability to use the services.

With a view to providing a unified, universal and progressively increasing health-care benefit package accessible to all Kenyans, the Health Benefits Package Advisory Panel was established to review and further develop that package, as is shown in figure 2.12. There are plans to transform the panel into a health benefits and tariffs authority that will play an advisory role in designing, reviewing and progressively expanding the benefit package.

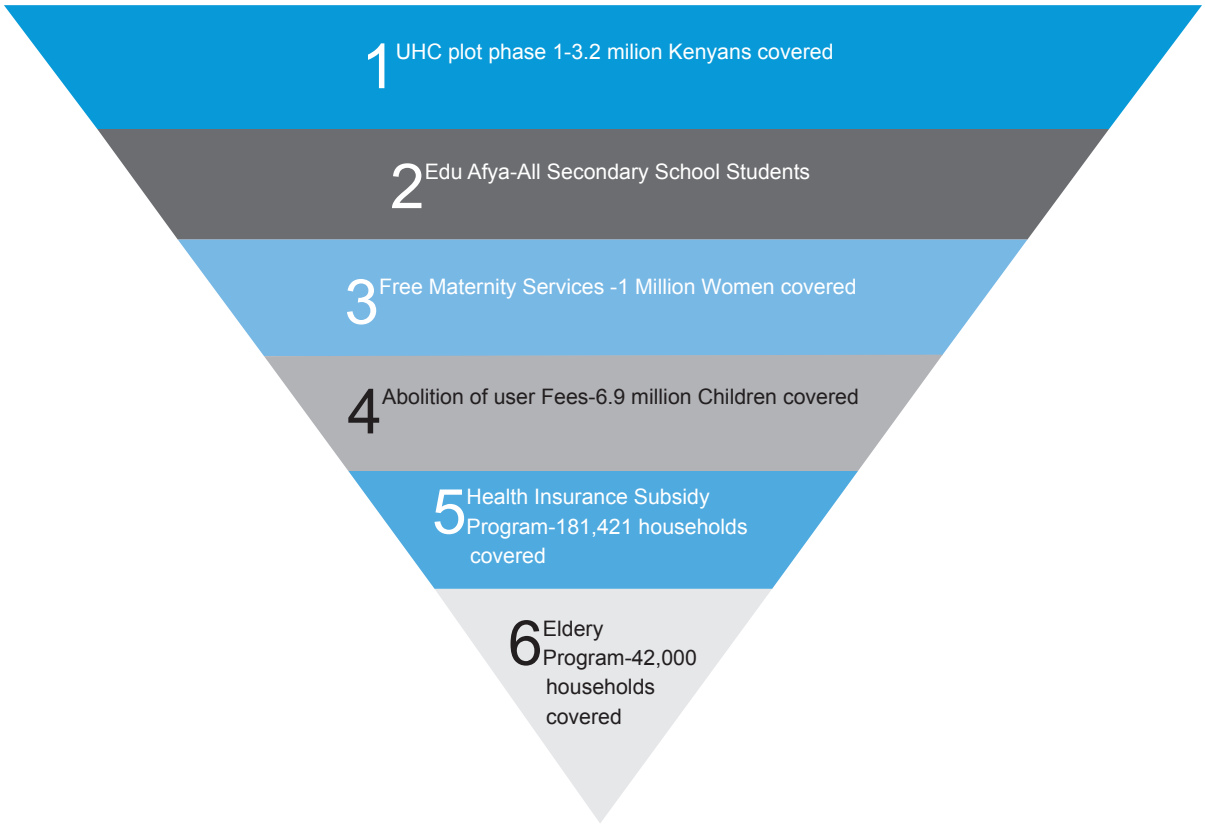
Several targeted government-subsidized programmes that have different benefits and entitlements will be consolidated to be a unified health benefit package for all in order to ensure social justice. Figure 2.13 shows the past and ongoing programmes implemented with a view to achieving UHC.

Figure 2.12: Universal health coverage in Kenya – overall design



Source: MOH, UHC roadmap

Figure 2.13: Past and ongoing programmes aimed at universal health coverage in Kenya



Ministry of Health (2018)

2.7 Health investment areas

2.7.1 Leadership and governance

Leadership and governance are critical for all components of the health system and the continuous interaction among them. Kenya has a devolved governance system with two levels of government, the national and the county levels, as mandated by the Kenya Constitution 2010. The implementation of the devolved health system has seen many successes and faced some challenges.

Intergovernmental coordination structures have been established and are functioning fairly well. Some leadership and governance challenges were experienced during the period covered by the previous strategic plan, including prolonged industrial unrest. The challenges were on the most part attributable to teething problems in implementing the two levels of government provided for in the Constitution. The report of the Midterm Review of the Kenya Health Sector Strategic and Investment Plan 2014–2018 emphasized the need to improve value for money across the entire health sector. Some of the key challenges identified in the review were:

a. Varying levels of political commitment and budgetary allocations to health care at all levels;

b. A lack of inclusion and a lack clarity in terms of collaboration mechanisms among stakeholders;

c. Weak social accountability measures at all levels;

d. Weaknesses in organizational and managerial processes;

e. In existent or inadequate support in creating an enabling environment for effective institutional performance;

f. Absence of functional governance tools and structures – organization chart, job descriptions, mentorship plan, multidisciplinary approach to management and communication strategy;

g. Absence of a public–private partnership framework, although a draft exists;

h. Inadequate stewardship, alignment and harmonization of policy and strategic documents;

i. Lack of a well-coordinated and structured capacity-building plan for the counties.

Among the achievements of the period covered by the previous strategic plan, however, there are:

a. Approval by the National Assembly of Sessional Paper Number 2 of 2017 on the Kenya Health Policy;

b. Enactment of the Health Act 2017;

c. Development and dissemination of norms and standards relating to leadership and governance, human resources for health and infrastructure;

d. Development of training in programme-based budgeting and capacity-building for the counties;

e. Development and implementation of health service management structures by the counties;

f. Capacity-building for hospital management boards;

g. Establishment of social accountability mechanisms in some counties and facilities, for example in Kwale and Meru, and capacity-building for counties in social accountability;

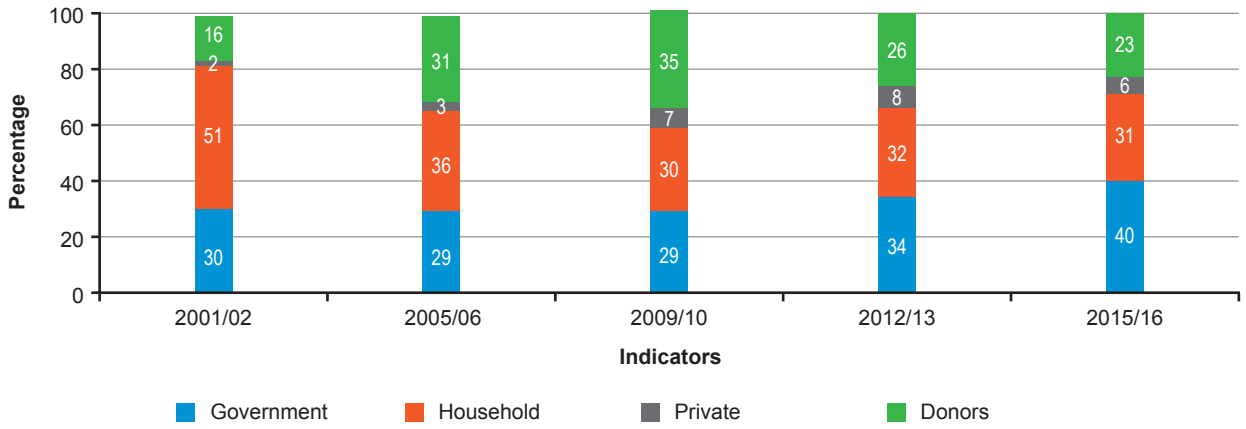
h. Development and implementation of partnership coordination frameworks in some counties;

i. Conduct of annual performance reviews at both levels of government.

2.7.2 Financing

Kenya has faced the challenge of raising adequate resources to finance its health system. The Kenya National Health Accounts report for the financial year 2015/16 (Ministry of Health, 2017) revealed that spending on health had increased by 176 per cent between

Figure 2.14: Sources of health financing in Kenya over time



Source: National Health Accounts (2015/16)

2001/02 and 2015/16, from approximately KSh 125 billion (US$ 1,596 million) in 2001/02 to KSh 346 billion (US$ 3,476 million) in 2015/16.

Figure 2.14 shows the health-financing landscape in Kenya from the year 2001/02 to the year 2015/16.

The government and households themselves were the main financers of health care in Kenya in 2015/16, contributing 40 and 31 per cent, respectively. The government contribution had increased from 30 per cent in 2001/02, while the household contribution had decreased, from 51 per cent.

During the years 2001/02, 2005/06, 2009/10, 2012/13 and 2015/16, total health spending in the country was 5.1, 4.7, 5.4, 6.8 and 5.2 per cent of nominal GDP, respectively. Government health spending as a proportion of total government expenditure is estimated to have been 8.0, 5.1, 4.8, 6.1 and 6.7 per cent in those same years. Total government spending on health as a proportion of GDP currently stands at 2.5 per cent, including pooled funds (social insurance contributions), against the target of at least 5 per cent (World Health Organization 2010: Health Systems Financing. The path to universal coverage).

Per capita spending on health in Kenya was estimated to be KSh 7,822 in 2015/16 compared with KSh 4,021.6 in 2001/02. This increase was driven primarily by greater government and donor resources, with the proportion of household expenditure allocated to health actually decreasing.

There was, therefore, no real increase in the overall resources as the disposal of the health system. Health expenditure as a proportion of GDP, and public expenditure as a proportion of general government expenditure, stagnated during the period. There was, however, a move towards greater fairness in the approach to financing health, with contributions proportional to people's means.

Several emerging issues relating to health financing have guided the choice of desired outputs of the Strategic Plan. These emerging issues include the following:

- **Low insurance coverage.** A large proportion (19.5 per cent) of the population are not covered by health insurance.
- **No real increases in health expenditure.** Although health expenditure as a proportion of GDP is low/stagnating, there is significant scope for improvement in domestic health expenditure. Government allocations to health are low and there is need for additional mechanisms to ensure that these increase.
- Funding landscape. Even though donor support for the health sector accounts for almost a third of total current health expenditure, a significant proportion

of the money received is for extra-budgetary activities and targets few major diseases.

- **Inefficient management of the multiple funding sources and dependence on donor funds and out-of-pocket payments.** The current health financing architecture is quite complicated, with a meshwork of financing agents contributing to multiple services and in an overlapping manner.
- **Major inefficiencies in the current resource pooling and management arrangements.** There are multiple arrangements for the pooling of resources and overlapping financing of the services. Government-managed resource pools are managing increasing amounts of funding, but they are highly fragmented, with multiple sub pools for specific populations and entities (such as the counties or civil servants) that diminish solidarity and increase administrative costs.
- **Major inequity in the current pooling and management arrangements.** Households are consistently a major source of the funds spent on health services, implying those with greater resources are collectively better able to influence how the funds are spent. Insurance would improve on solidarity, but there is still very limited coverage and regulation of the industry is weak.
- **Passive purchasing arrangements.** Health sector purchasing is principally input-based, whereby funding is provided for inputs such as human resources, infrastructure and drugs. This results in challenges in terms of the quality of care. The perception of a better experience drives people towards more-costly private services. Strategic purchasing mechanisms focusing of desired outcomes would address most of these issues.
- **Overlapping roles among financers, purchasers and service providers.** At present, there are overlaps among the providers and the purchasers of services in both the public and private sector. This creates the potential for abuse, as there is limited transparency in processes.
- **Uneven investment in delivery of the benefit package.** The sector has defined the Kenya Essential Package for Health. Financing of provision of the package, however, has largely been left to the financing agents, which decide which elements they prefer to finance. As a result, there is uneven investment in the capacity to provide the various services in the package.
- **Costly health services.** In 2018, 28 per cent of the people who reported being sick did not seek care. The high cost of services is a major barrier and the reason given by 19.4 per cent of those people who did not seek care. Furthermore, 4.9 per cent of households were at risk of impoverishment owing to the depletion of their household savings by expenditure on health care (Ministry of Health, 2018). Health costs are "catastrophic" for a household if expenditure is 40 per cent or more of its non-subsistence income (Xu K. and others, 2003).

2.7.3 Infrastructure

The Health Sector Infrastructure Norms and Standards provide guidance on service delivery, the design and construction of health facilities and the operation and maintenance of health-care infrastructure to ensure that approaches are standardized, while facilitating health-facility accreditation, licensing and autonomy.

As mentioned earlier, the Ministry of Health has embarked on the provision of health equipment through the Managed Equipment Services project, constructing, upgrading and equipping two hospitals per county and four national hospitals. Furthermore, through the Equalization Fund established by the Constitution 2010, the Government has constructed new facilities or upgraded and equipped some existing ones in the following counties: Garissa, Isiolo, Kilifi, Kwale,

Lamu, Marsabit, Narok, Taita Taveta, Turkana, Wajir and West Pokot. Also through the fund, medical training colleges have been or are being constructed in Garissa, Mandera and Taita Taveta.

Investment by key stakeholders in health has led to growth in the number of health facilities in the country. Nevertheless, there are imbalances in their geographic distribution. A patient's average distance from a health facility is about 9.5 km (Ministry of Health, 2018). Table 2.4 below shows the number of public health facilities in the country is currently 5,277 (47.5 per cent) and the number of private facilities is 5,624 (51.6 per cent). The latter include facilities run by not-for-profit organizations, such as faith-based and non-governmental organizations.

Public sector dispensaries and health centres exist down to the community level, providing PHC services for rural populations of up to 10,000 and 30,000 people, respectively. County and subcounty referral hospitals are located mainly in urban and peri-urban areas and provide curative health services for populations of 100,000 to 1,000,000 people. Faith-based health facilities tend to be situated more in rural and underserved areas, while profit-driven private providers tend to be situated in more affluent areas, mainly major towns and cities.

Investments made so far to develop health infrastructure has enabled Kenya to achieve higher ratios of facilities to people. As shown in figure 2.15, the Kenya Master Health Facility List application stated that in 2018 the density of health facilities per 10,000 people was lowest in Kisii and Bungoma counties, where it stood at 1.4, and highest in Nyeri, at 4.3. Twenty-three counties were below the national average of 2.3 health facilities per 10,000 people.

Regardless of the density of health facilities, there is disparity in facilities' implementation of appropriate the norms and standards. A facility categorized as Level 4, for example, may not always meet all the service-delivery standards of that level.

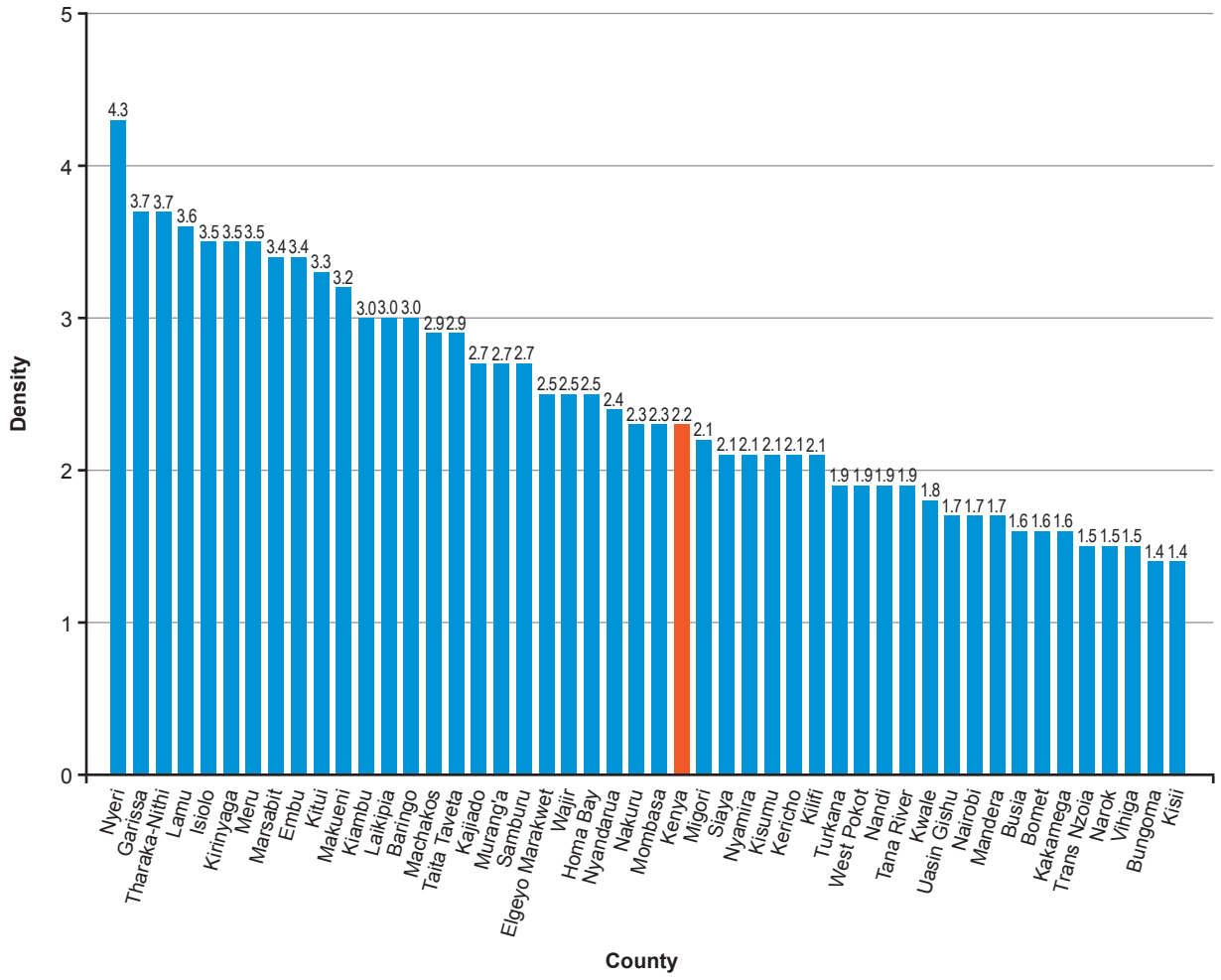
To maximize the benefits of the Kenya Essential Package for Health, there must be an appropriate mix of inputs – human resources, commodities and infrastructure. Analysis of public expenditure on health, however, shows that development budget allocations and expenditure remain low, and where money is available there is a lack of proper planning. This results in the non-repairing, non-upgrading and non-rehabilitation of health facilities, especially in the public sector.

Table 2.4: Number of health facilities, by type (2019)

	Number of health facilities						
Type of facility	**Level 2**	**Level 3**	**Level 4**	**Level 5**	**Level 6**	**Grand total**	**Percentage**
Ministry of Health	3,872	969	310	22	4	5,177	47.5
Other public institutions	82	11	7			100	0.9
Private	3,408	571	312	2		4,293	39.4
Faith-based organizations	707	194	100	3		1,004	9.2
Non-governmental organizations	269	45	13			327	3.0
Total	**8,338**	**1,790**	**742**	**27**	**4**	**10,901**	**100.0**

Source: Kenya Master Health Facility List application.

Figure 2.15: Health facility density, by county (2018)



Source: Kenya Medical Facility List application.

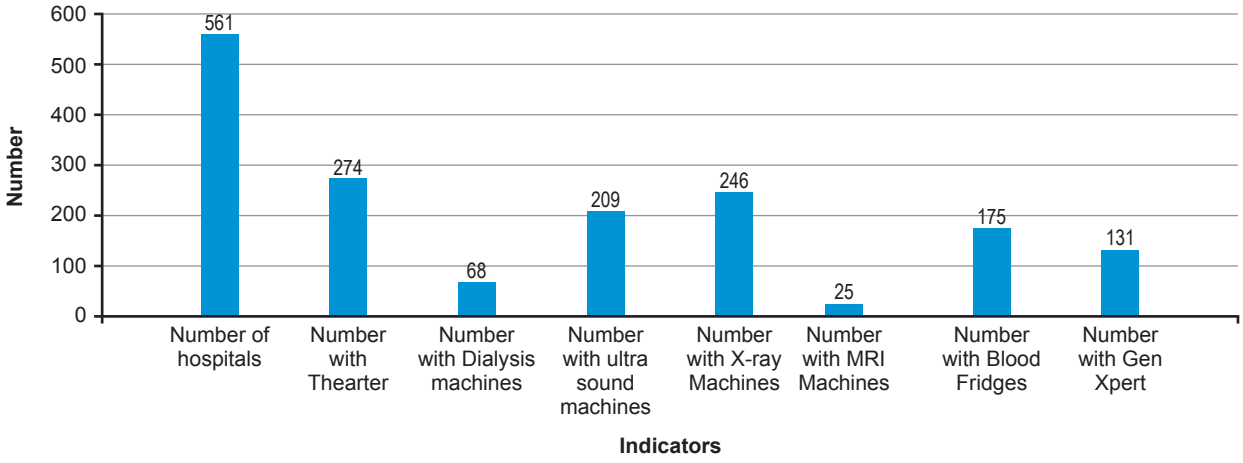
Medical equipment

The Ministry of Health has made investment in modern medical equipment as a key priority through the Managed Equipment Services project. A seven-year contract that runs from 2015 to 2022 focuses on equipping 98 hospitals (two hospitals in each of the 47 counties and four national hospitals). The hospitals have been equipped with theatre, sterilization and surgical sets, renal, dialysis and intensive-care-unit equipment, and imaging and radiology investment. In addition, 21 other hospitals have been provided with theatre equipment and surgical/sterilization instruments.

A Health facility assessment carried out by the Ministry of Health in readiness for implementation of UHC (Ministry of Health, 2018) found that, of the 561 hospitals assessed, only 246 had X-ray machines, which amounts to 44 per cent (see figure 2.16). This indicates that most of the hospitals are not equipped to the level set out in the norms and standards.

Despite having the equipment in place, most hospitals do not have proper scheduled preventive maintenance, leading to the frequent breakdown of equipment. Furthermore, the performance and safety of the equipment are not monitored.

Figure 2.16: Status of hospital equipment (2018)



Source: Ministry of Health (2018)

Information and communication technology

Communication and the transfer of health information is key to the delivery of sustainable high-quality health care. Health care and ICT are slowly becoming more interconnected in the country thanks to the comprehensive Kenya National e-Health Policy. In this context, communication services and facilities include telemedicine, mobile-health, e-learning, telephone connections, Internet services, intercom or public address systems, local area networks and computers with the necessary accessories.

Some positive developments in ICT technology that need to be pursued under the new strategic plan are:

a. Automation, which has improved access to information and reduced information transmission time for medical decision-making;

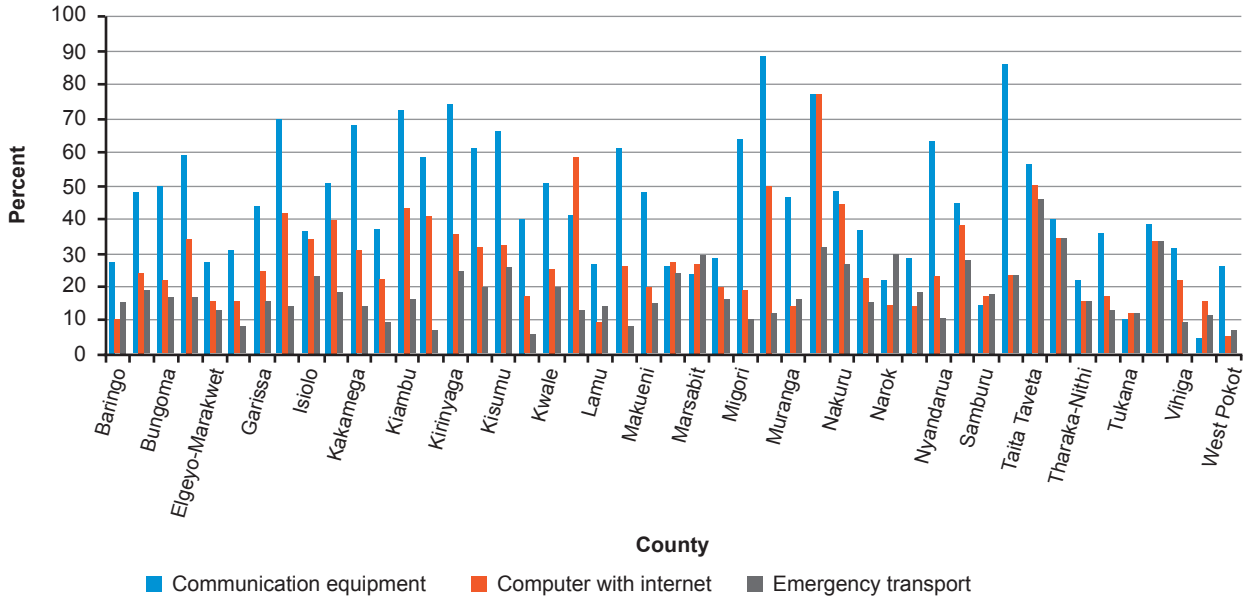
b. Improvements in procurement logistics through the online requisition of commodities, thus reducing order turnaround time;

c. Automation of laboratory equipment, which has reduced workload and error margins, resulting in more accurate diagnoses and improved patient outcomes.

ICT is also part of health-sector norms and standards, but, on average, counties have only 50 per cent of the required communication equipment (see figure 2.17). As at 2018, the least-equipped county, at 5 per cent, was Wajir and the best-equipped, at 88 per cent, was Mombasa. Counties averaged at 31 per cent in terms of equipping with computers with Internet access, with the least-equipped being West Pokot at 5 per cent, and the best-equipped being Nairobi, at 77 per cent (Ministry of Health, 2018f).

There is need to improve Internet coverage and access to communication equipment. The investment plan for the health factor lacks clear articulation of ICT requirements in the health sector, resulting in inadequate funding and suboptimal ICT infrastructure. Collaboration and planning among agencies dealing with ICT infrastructure should also be enhanced.

Figure 2.17: Status of information and communication technology and emergency transport, by county (2018)



Source: Ministry of Health (2018).

Transport

Proper transport systems play an integral role in ensuring appropriate coverage of health services among the population. Despite efforts by the national and county health ministries and partners to bridge the patient transport gap and procure ambulances, as recommended in the report of the Service Availability and Readiness Assessment Mapping 2013 (Ministry of Health, 2013), there is still a huge shortage of standard functional ambulances in the country, which hinders referral systems.

Countrywide, the average proportion of required emergency transport that is actually available is 18 per cent. This proportion is lowest in Kitui, where it is 6 per cent, and highest in Taita Taveta, where it is 46 per cent (Ministry of Health, 2018f).

To improve the transport system, there needs to be increased investment in fleet management and the provision of modern ICT equipment to coordination centres. Preventive maintenance schedules need to be established.

At present, the key issues hindering the establishment of the required health infrastructure include:

a. Lack of implementation of health infrastructure norms and standards, leading to a variety of different designs in physical infrastructure around the country and deficiencies in equipment, ICT, transport and logistics;

b. Uneven distribution of the available infrastructure (physical facilities, equipment, ICT, transport and logistics);

c. A high proportion of stalled projects, particularly those seeking to improve physical infrastructure;

d. Poor maintenance and lack of repair of health infrastructure (physical facilities, equipment, ICT and transport) due to poor planning, inadequate budget and lack of proper preventive maintenance;

e. That the medical devices acquired do not necessarily enable some of the requirements of installation or use to be met.

2.7.4 Human resources for health

Achieving UHC and the Sustainable Development Goals requires an enabling policy environment, better management systems and practices relating to human resources for health and dialogue between

national and county governments to drive and ensure the harmonization of interventions relating to human resources of health for improved outcomes.

Kenya's growing population has strained the available human resources for health, and the limited numbers of health workers with critical skills produced by the country and absorbed into its systems are not sufficient to meet this expanding gap been service provision and needs. The cost of the training remains a key obstacle to increasing the number of qualified health workers.

To address the heavy burden of disease, Kenya requires access to well-trained, culturally sensitive health workers, who have the right mix of skills and are effectively distributed around the country. In 2006, WHO classified Kenya as one of the 57 countries characterized by a critical shortage of health service providers – doctors, nurses and midwives (World Health Organization, 2006).

As shown in table 2.5, Kenya has 11,000 doctors, 76,000 nurses and 19,085 clinical officers, of whom only 4,000 doctors, 47,000 nurses and 6,659 clinical officers were active in the public health sector as at June 2018. This translates to an average of 21 doctors and 100 nurses per 100,000 people compared with the WHO-recommended minimum staffing levels of 36 doctors and 356 nurses per 100,000 people. Similarly, the country has a total of 53,090 community health volunteers and 1,740 community health extension workers.

Since devolution of governance, the key human resource challenge encountered by counties has been the management of the health workforce. Factors include:

a. Gaps in policies guiding the management of health workers;

b. A lack of coordination among governments and between the county and national governments in relation to human resources for health;

c. Health worker strikes, such as those witnessed in 2017;

d. Inadequate management and leadership capacity in relation to human resources for health at the county level;

e. Inadequate numbers and inequitable distribution of health workers, which has led most counties having too few health workers for their population density;

f. Low absorption of skilled health professionals into the health system and inadequate numbers of trained specialists and subspecialists;

g. High staff turnover;

h. Outmigration of human resources for health to other countries and other counties;

i. A recruitment model that is not cost-effective, especially in relation to specialists;

j. A lack of performance-based management systems for human resources for health.

Table 2.5: Distribution of health-related human resources, by sector (2018)

Cadre	Registered	Public sector	Private sector	Outmigration/ unemployment/ informal sector
Doctors	11,000	3,400	2,740	4,860
Nurses	76,000	27,443	19,557	29,000
Clinical officers	19,085	6,659	5,312	7,114

Sources: Kenya Medical Practitioners and Dentists Council; Nursing Council of Kenya; Clinical Officers Council

2.7.5 Products and technologies

Health products and technologies are governed by the Health Act 2017, which in article 62 provides for the establishment of a regulatory body to be mandated as per article 63. The Health Act 2017 further addresses the procurement of public health products and technologies in paragraph 1 of article 67, which states that "the procurement, for public health services, of health products and technologies shall be undertaken in line with the Public Procurement and Disposal Act as well as the intergovernmental arrangements for medicine and medical products agreed upon."

Paragraph 4 of article 85 of the Health Act 2017 mandates the Kenya National Blood Transfusion Service to "establish settings and mechanisms that will enable it to superintend, regulate and provide blood transfusion services in the Republic of Kenya". This creates a strong basis for strengthening and stabilizing blood services to help achieve UHC. As at 2018, the Kenya National Blood Transfusion Service had 24 facilities located in 23 counties. About 80 per cent of the blood units collected in Kenya are from school children under 18 years of age. Kenya made significant achievements related to health products and technologies during implementation of the strategic plan 2014–2018. The country requires 450,000 units of blood and blood products per year, and in 2017 the service provided only 183,790 units. The Service Availability and Readiness Assessment Mapping showed that, overall, the mean availability of at least one tracer item for blood services increased significantly from 42 per cent to 83 per cent between 2015 and 2016. (Ministry of Health, 2013 and 2016). There has been an increase in the annual budget allocation at both at the national and county levels for medical supply procurement.

The Kenya Essential Medicines List and the Kenya Essential Medical Supplies List were reviewed and updated in 2016. The Kenya Essential Medical Laboratory Commodity List was developed in 2014. The National Medicines and Therapeutics Committee was reconstituted in 2014 and the guidelines for medicines and therapeutics committees reviewed and updated in 2015. In addition, the guidelines for quantification of health commodities were reviewed and updated in 2014, followed in 2015 by the review of the guidelines for management of medicines and medical supplies in health facilities. Other guidelines that have been reviewed include the guidelines for supportive supervision for health commodities, reviewed and updated in 2015; guidelines and policies on appropriate use of blood and blood products; and the national standards for blood transfusion.

To strengthen procurement and supply systems, the Kenya Medical Supplies Authority is mandated with guaranteeing the supply of essential medicines and other medical supplies and most devices to all public health facilities on timely basis. The Kenya Medical Supplies Authority Act was passed in 2013 (National Council for Law Reporting, 2013a). The Mission for Essential Drugs and Supplies complements the Kenya Medical Supplies Authority in the supply of medical commodities to both faith-based and public health facilities. Both bodies are reputable and guarantee quality and best market prices.

According to the Service Availability and Readiness Assessment 2016, 16 per cent of the health facilities assessed had all tracer commodities, while 69 per cent of the health facilities had at least one tracer item available for the provision of essential services.

Emerging issues

About 63 per cent of the country's blood needs have remained unmet since 2003. In addition, the Government has been unable to fund 50 per cent of the budgetary requirements of the Kenya National Blood Transfusion Service. The service plans to collect 250,000 units of blood in 2018/2019 and increase the number of units collected by 15 per cent a year for the next five years. This is on account of the increase in accidents, injuries, complications in pregnancy and delivery and non-communicable conditions.

Regulation of non-pharmaceuticals is also key in the sector and is currently done by the Pharmacy and Poisons Board. Regulation

needs to be strengthened, however, to ensure the safety of these products.

The supply of health products and technologies in Kenya is supported by both local and international pharmaceutical manufacturers. There are currently 35 local manufacturers of pharmaceuticals for both local consumption and export, yet the country imports over 95 per cent of non-pharmaceutical health products. This increases both the procurement lead times and the cost of these commodities.

The Kenyan health system uses uncoordinated logistics management information systems that pose challenges in the collection of data for ascertaining demand and managing supplies at both the national and county levels.

In March 2011, the Kenya Association of Pharmaceutical Industry estimated that counterfeit medicines accounted for approximately K Sh 9 billion (US$ 100 million) in sales annually. This figure corresponds to between 20 and 25 per cent of the total legal commercial pharmaceutical market. This has a significant impact on patient safety.

2.7.6 Research and development

There have been significant outputs in terms of research and development as demonstrated by the development and adoption of various policies and strategies using evidence from research findings. During the period covered by the previous strategic plan, the Kenya Medical Research Institute had more than 1,000 new proposals approved, produced more than 1,200 publications and eight other products and each year wrote five policy briefs. In addition, the National Commission for Science, Technology and Innovation registered 15 research entities, three of which were in the health sector.

Other achievements related to research and development include the following:

- Creation of the Health Research and Development Unit within the Ministry of Health in 2013 for the coordination of health research activities;
- A capacity needs assessment, conducted in 2014, to assess the use of research-based evidence in developing policy in the health sector. To complement this, in 2015/16 a baseline survey was conducted on the use of evidence generated by research in policy formulation within the Ministry of Health;
- Enactment of the Health Act in 2017 and the Science, Technology and Innovation Act in 2013 (National Council for Law Reporting, 2013b) has contributed to progress in research, particularly in the field of health. A research coordination framework was included as part of the Health Act 2017.
- Development of a draft research for health policy framework and accompanying priorities related to research for health, with the aim of governing and informing research in the health sector;
- Establishment of a technical working group on research for health;
- Establishment of the Kenya Health and Research Observatory (a web-based portal intended as a one-stop-shop for health data and research), the stakeholders of which carried out a landscape mapping for the research repository to aid in knowledge translation;
- Dissemination of several research findings through various forums, both locally and internationally, including conferences on research and policy, Science-Policy Café events, annual health-related scientific forums, such as the Annual Scientific and Health Conference of the Kenya Medical Research Institute, and several conferences on health organized by academia;
- Training of 34 Ministry of Health officials in evidence-informed policymaking, with 13 of the participants subsequently drafting policy briefs on various urgent health challenges in the country.

However, research for health in Kenya faces some major challenges, including the following:

- Current research for health is not appropriately coordinated, leading to unwarranted duplication and preventing optimal use of resources and findings.
- Funding for research has remained very low and the sector has continued to rely on donors and funding from partners. This has affected prioritization and intellectual ownership of the research findings. Nevertheless, there have been improvements recently with the setting up of the National Research Fund. Direct funding from the exchequer account has also eased the situation and stimulated innovation.
- Translation of research findings into sustainable improvements in health outcomes remains challenge, which is a substantial obstacle to the quality of care. The low level of translation of research findings into policy and products is noted, especially in development of medical devices.

2.7.7 Monitoring and evaluation

Good-quality information contributes to effective health-sector governance and stewardship, improving the quality and availability of health-care service delivery. The objective of a health information system is to facilitate access to good-quality health information for decision-making at all levels. This in turn contributes to ensuring that citizens' rights to health care and information, as enshrined in the constitution, are upheld and to achieving universal access to health care, reducing the disease burden and increasing the efficiency, cost-effectiveness and sustainability of services, all of which ultimately improve the health of the population. A robust health information system is consequently essential for tracking progress towards the attainment of the Sustainable Development Goals, the goals of the Kenya Vision 2030 and the aspirations of the Kenya Health Policy 2014–2030.

The Kenya Health Information System Policy 2014–2030 (Ministry of Health, 2014d) envisages a robust system that is able to provide information on all areas of health, including births and population growth, mortality and morbidity, outbreaks of disease, social determinants of health (such as nutrition, environment and oral hygiene), access to and coverage of quality services, human resources for health and financing. Various tools and data-collection methods for obtaining this information already exist, such as vital registration and census systems, surveys (at the household, health-facility and subnational levels), routine data-collection systems in health facilities, patient monitoring, joint supervision, inspections, administrative data and medical record audits, disease surveillance and research. All these need to be integrated with a view to enhancing access to and the quality of health information.

The social determinants of health are not monitored exclusively by the health sector. There is therefore a need to engage other relevant ministries, departments and agencies and the private sector active in the field of health in carrying out the monitoring and evaluation process. All stakeholders generate, and require, specific information relating to their functions and responsibilities. The information generated by all these stakeholders is required for an overall assessment of health sector performance.

During the implementation of the previous strategic plan, several national health information systems were established and disseminated in the country (e.g., the DHIS2 tool, the Kenya Master Health Facility List application, a data service layer, early infant diagnosis/HIV viral load tools, the TIBU system, the iHRIS Manage software, the Gender-based Violence Information Management System and a logistics management information system). The DHIS2 tool forms the backbone of the national health information system and, while capacity to use the system varies, the DHIS2 tool is widely employed at most levels. The completeness of information on health

facilities within the DHIS2 tool is 89 per cent. In order to improve information generation, the Kenya Health Sector Strategic Plan 2018–2023 includes capacity development that builds on existing knowledge and will be further informed by a national health-information-system capacity assessment.

Investment in a health information system seeks to place the practice of monitoring and evaluation within a broader health-sector management and accountability framework, while ensuring good-quality health information for use by all in informed decision-making.

The planned investment milestones will facilitate tracking of the extent to which the broader objectives of the health sector are being met, measure the specific progress being made and the use of information, improve service delivery and influence allocation of resources within the sector. The aim is to share results with all stakeholders in accordance with principles of accountability and transparency.

Considerable progress has been made in the development of policies and documents to guide health information activities. These include: the Health Sector Indicator and Standard Operating Procedure Manual (Ministry of Health, 2017c); Guidelines for the Institutionalization of Monitoring and Evaluation in the Health Sector (Ministry of Health, 2016f); the National Monitoring and Evaluation Framework (Ministry of Health, 2013b); the Kenya Health Sector Data Quality-Assurance Protocol (Ministry of Health, 2014e); the Kenya Health Information System Policy 2014–2030(2014d); the Planning, Budgeting and Performance Review Process Guide for the Health Sector (Ministry of Health, 2018i), the Kenya National e-Health Policy 2016–2030(2016c); the Kenya Standards and Guidelines for mobile-Health Systems (Ministry of Health, 2017e), Kenya Interoperability Standards and Guidelines (Ministry of Health, 2015a); a uniform platform for generating aggregate information through the DHIS2 tool; and a standard integrated data-collection and reporting tool.

Other major steps made within the sector include integration of several different information management systems into one, creating, for example, the Integrated Disease Surveillance and Response system and the TIBU system, to automate medical documentation in a number of counties.

Monitoring and evaluation have been implemented through regular reviews. Analytical reports have been produced and shared in Kenya health stakeholder forums. Similarly, critical health surveys have been conducted, such as the 2013 Service Availability and Readiness Assessment Mapping, the 2014 Kenya Demographic and Health Survey, the 2015 Kenya Malaria Indicator Survey, STEPS 2015, the 2018 Harmonized Health Facility Assessment and the 2018 Household Health Expenditure and Utilization Survey. Furthermore, regular data-quality audits and reviews have been conducted, leading to the development of a data quality-control protocol.

Main challenges

The following weaknesses have been identified with regard to the health information system:

- Inadequate capacity for analysis and the development of targeted dissemination products
- Lack of attention to analysis and the use of information for decision-making
- The existence of multiple unlinked databases
- Inadequate use of ICT and poor investment in e-health and other technologies
- Inadequate resources.

2.7.8 Service delivery

There is now an unprecedented increase in non-communicable conditions and injuries that requires the rethinking of strategies for achieving UHC. The Strategic Plan uses an integrated people-centred approach to service delivery. This involves clinical encounters and recognizes the crucial role that people play in shaping

health policy and the health services that they receive. This means that services must be delivered in a way that ensures the following:

a. **Equity of access –** everyone, everywhere, should have to access to good-quality health services when and where they need them;

b. **Quality–** care should be safe, effective and timely, respond to people's comprehensive needs and be of the highest possible standard.

c. **Responsiveness and participation–** care should be coordinated according to people's needs and respect their preferences and they should be able to participate in health-related matters.

d. **Efficiency–** services should be provided in the most cost-effective setting, striking a balance between health promotion, prevention and inpatient and outpatient care and avoiding duplication and wastage of resources.

e. **Resilience–** the capacity of health actors, institutions and populations to prepare for, and effectively respond to, public health crises should be strengthened.

The Kenyan health system is organized in six levels and, as such, it is important to have a proper referral system to ensure efficient passage along and good-quality services at each stage of the continuum of care. These services need to include health promotion, disease prevention, diagnosis, treatment, disease management, rehabilitation and palliative care. The Strategic Plan will also provide the necessary national framework for the prevention, detection and assessment of events that might constitute public health emergencies, including those of international concern, and the provision of a coordinated response.

There have been some advances in service delivery, but more needs to be done:

- The capacity of the Ministry of Health has been strengthened particularly in terms of planning and monitoring, but limitations remain in other areas, such as leadership and management.
- The Kenya Essential Package for Health has been developed with each new strategic plan, but its application, to guide service-delivery priorities, has been limited.
- Innovative service-delivery strategies have been applied through mobile clinics, outreach programmes or community-based service provision, but their application too has been limited, to some geographical areas and programmes only.
- Subnational management functions have been strengthened to allow them better to facilitate and supervise service delivery, but that mandate is exercised differently in the various counties.
- New statutes, laws and policies guiding different aspects of the health sector have been introduced, but in an uncoordinated manner, and there has been no updating of existing laws.
- The health sector has made some efforts to develop a financing strategy to guide resource rationalization and mobilization.
- Human resources are being strengthened through redistribution, an increase in numbers and a review of management structures, but challenges still remain in terms investment, the application of norms and standards and staff motivation.

- The health sector does not also have an infrastructure investment plan to guide the distribution and improvement of health infrastructure, leading to a lack of investment in both new and existing infrastructure.
- Coordination of infection control with regard to HIV/AIDS and other sexually transmitted infections is done by the semi-autonomous National AIDS Control Council, which is managed by another ministry. The financing of the approach and its integration into the overall health agenda remains challenging.
- While an explicit Kenya National Drug Policy (Ministry of Health, 1994) is in place, its implementation has been slow and only a fraction of the steps outlined therein have been taken. Some of the notable achievements relate to improvements in commodity management, such as the harmonization of procurement, warehousing and distribution mechanisms through the Kenya Medical Supplies Agency.
- An Essential Medicines List exists, but it is underused. Attempts have been made to introduce a demand-driven procurement system and there is evidence of increased availability of required commodities in public health facilities.
- There have been gains in terms of the fullness of the information in the health management and information system, but the improvements remain limited to a few conditions and there are still weaknesses in terms of data quality. Furthermore, information analysis, dissemination and use is not yet well entrenched in the sector, and information other than that relating to routine health management is rarely used.
- Cost-containment and cost-control strategies have not been wholly applied in the sector. Cost information is missing and expenditure review recommendations are not applied. Strategies for contracting services from health-care providers are not being employed as a means of cost control.
- The amount and scope of system-related, clinical and biomedical research being carried out have increased, with a number of operational decisions taken on the basis thereof. There is, however, little collaboration among the various research institutions, and the link between research and policy remains weak.
- The decentralization of certain Ministry of Health functions was carried out in line with devolution of governance functions to the counties, but without much guidance and oversight. Since that time, the central level has again expanded significantly, with more programmes and more programme management units.

Chapter Three: Strategic Direction

3.1 Overview of Kenya Health Policy 2014–2030

The Kenya Health Policy 2014–2030 is crucial for the achievement of the Kenya Vision 2030. It is implemented through multi-year strategic plans. The priorities in the plan are based on the issues emerging in the country that have a multisectoral dimension. The priorities in the Strategic Plan, covering 2018–2023, are articulated according to the six objectives of the policy that seek to achieve the policy's main goal of "attaining the highest possible health standards in a responsive manner". Furthermore, an overarching focus of the Strategic Plan is the achievement of UHC. This chapter presents the Health Policy 2014-2030 and shows how the key outputs and actions of the Strategic Plan relates to KHP.

3.2 Objectives of the Kenya Health Policy 2014–2030

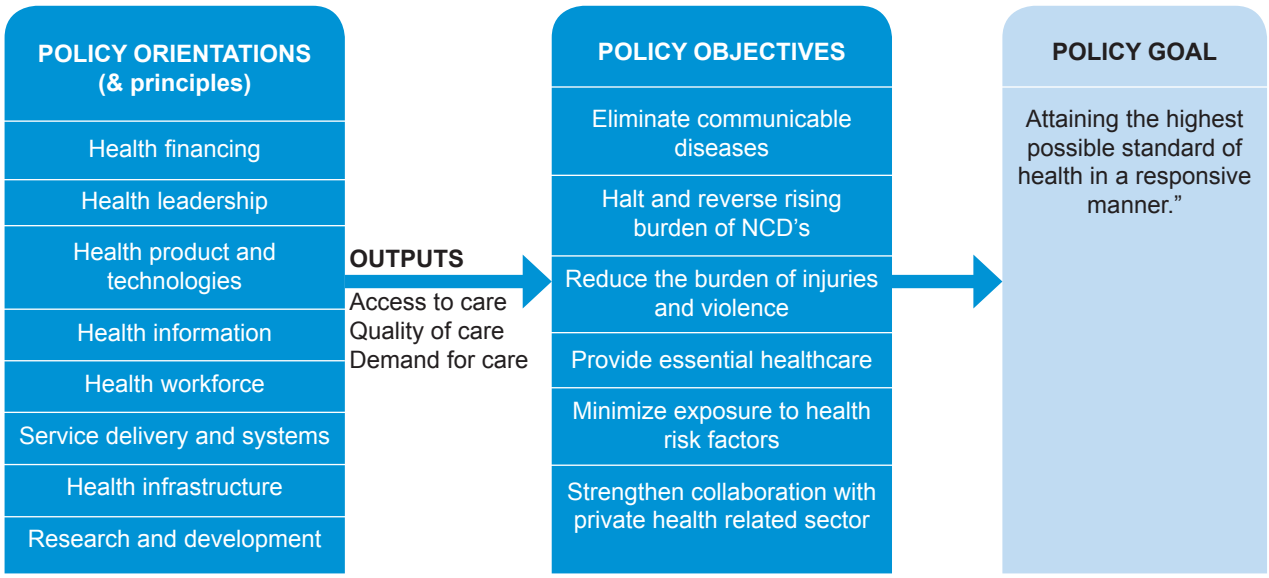
Figure 3.1 shows how the six objectives of the Kenya Health Policy 2014–2030 fit within the overall architecture of the policy.

3.3 Principles of the Kenya Health Policy 2014–2030

The principles aim to guide investments, set targets and assess the performance of the sector in achieving the overall aspirations of the policy. They are based on an interpretation of PHC principles as follows:

- **Equity in the distribution of health services and interventions.** There shall be no exclusion or social disparity in

Figure 3.1: Kenya Health Policy 2014–2030: orientations, objectives, and goal



Source: Kenya Health Policy 2014–2030.

the provision of health-care services. Services shall be provided equitably to all individuals in a community, irrespective of their gender, age, colour, tribe/ethnicity, geographical location, and socioeconomic status. The focus shall be on inclusiveness, non-discrimination, social accountability and gender equality.

- **A people-centred approach to health and health interventions.** Health-care services and health interventions shall be based on people's legitimate needs and expectations. This necessitates community involvement and participation in deciding, implementing and monitoring the interventions.
- **A participatory approach to the delivery of interventions.** The various actors involved in health-care provision shall participate in the design and delivery of interventions in order to achieve the best possible outcomes. A participatory approach should be applied when the potential for improved outcomes exists. The private sector shall be seen as complementary to the public sector to increase the geographical coverage, scale and scope of the health services provided.
- **A multisectoral approach to the realization of health goals.** Use of a multisectoral approach is based on recognition of the importance of factoring the social determinants of health into efforts to achieve overall health goals. Health-related issues shall therefore be included in policies that relate to other sectors, such as agriculture (e.g., food security), education (e.g., secondary-level education for females), roads (e.g., access to hard-to-reach populations), housing (e.g., decent conditions, especially in high-density urban areas) and the environment (e.g., a clean, unpolluted and safe environment).
- **Efficiency in the application of health technologies.** This aims to maximize the use of existing resources. The health sector shall choose and apply technologies that are appropriate (accessible, affordable, feasible and culturally acceptable) for addressing health challenges.
- **Social accountability.** Health service delivery systems will be reoriented towards application of the principles and practices of social accountability, including reporting on performance, raising public awareness, and fostering transparency and public participation in decision-making on health-related matters.

3.4 Direction of the Kenya Health Sector Strategic Plan 2018–2023

Figure 3.2 shows the overall vision, mission, goal and theme of the Kenya Health Sector Strategic Plan 2018–2023.

Figure 3.2: Vision, mission, goal and theme of the Kenya Health Sector Strategic Plan 2018–2023

VISION
A healthy, productive and globally competitive nation

MISSION
To build a progressive, responsive and sustainable health-care system for the accelerated achievement of the highest standard of health for all people in Kenya

GOAL
To achieve equitable, affordable, accessible and high-quality health care for all

THEME
Accelerated achievement of universal health coverage

The strategic direction of the Strategic Plan is guided by the Kenya Health Policy 2018–2023 and the country's development agenda.

3.5 Objectives of the Kenya Health Sector Strategic Plan 2018–2023

To be able to fulfil the above mandate, the overall objectives of the Strategic Plan are:

a. To reinforce and improve access to people-centred essential PHC services;

b. To increase access to and improve the quality of health services at all levels;

c. To institutionalize emergency preparedness and response, early recovery and resilience;

d. To build and strengthen partnerships and sector coordination mechanisms;

e. To strengthen the health system for effective delivery of health services;

f. To advocate and mobilize adequate financing for health at all levels.

3.6 Priority areas of action of the Kenya Health Sector Strategic Plan 2018–2023

The choice of priority areas is derived from situational analysis that has justified the inclusion of both communicable and non-communicable conditions in the Strategic Plan.

Communicable conditions continue to dominate the causes of morbidity and mortality. HIV/AIDS accounts for one in three deaths and 25 per cent of all ill health in Kenya. Infectious conditions overall account for 50 per cent of all deaths and disability.

Non-communicable conditions represent a significant, and increasing, burden of ill health and death in the country, the main ones being cardiovascular disease, cancers, respiratory and digestive diseases, diabetes and psychiatric conditions. Together, they are responsible for an estimated 50 to 70 per cent of all hospital admissions and up to half of all inpatient mortality. There is no sign of a reduction in this trend. Injuries and violence also feature in the top 10 causes of morbidity and mortality in the country, especially in young and unemployed people.

While various service-specific health determinants, such as level of implementation of programmes, coverage by health facilities, the effectiveness of the referral system and the available and quality of human resources for health, all contribute to the outcomes mentioned above, various contextual factors also have a significant impact on the health of the population. Following are some of the most important ones:

- **The high rate of population growth (3 per cent annually).** This creates a young and dependent population.
- **Absolute poverty.** While there has been some reduction in absolute poverty and some improvements in income (increase in GDP), absolute poverty remains very high, at 46 per cent. The improvements are confined mainly to urban areas (while 80 per cent of the population lives in rural areas) and have not yet been seen in hard-to-reach areas, the slums (where 70 per cent of the urban population lives) or among the various at-risk population groups.
- **Female literacy.** Literacy levels in Kenya are generally high (around 78 per cent), but inequalities persist in relation to females and several poor regions of the country, with levels ranging from 87 per cent in Nairobi to only 4 per cent in Marsabit;
- **Gender disparities.** Disparities in Gender Development Index values also remain too great, ranging from 0.628 in Central Province to 0,401 in North Eastern Province.

In the Kenya Vision 2030, health issues are expected to be addressed through increases in the number of available health services, the scaling up of health service coverage and the reduction of the financial burden associated with using the services. There is strategic intent to build on and scale up interventions, with emphasis on prevention through PHC and investments in reproductive, maternal and newborn health. The specific targets are the

same as those articulated in the individual national policies, namely:

a. To reduce, by at least 50 per cent, infant, newborn and maternal deaths;
b. To reduce, by at least 25 per cent, the length of time people spend in ill health;
c. To improve, by at least 50 per cent, the level of client satisfaction with health services;
d. To reduce, by 30 per cent, catastrophic health expenditures.

According to the Kenya Health Policy 2014–2030, total annual mortality is estimated to be 420,000 deaths , of which 270,000 (64 per cent) are due to communicable conditions, 110,000 (26 per cent) are due to non-communicable conditions and 40,000 (10 per cent) are due to injuries.

Current efforts to tackle malaria, TB and HIV should bear fruits in the short and medium terms. As interventions to address these and other communicable conditions are scaled up and the country achieves sustained UHC, projections show that there will be a reduction the proportion of the burden of disease attributable to communicable diseases. Given the increasing population, however, these reductions will be too small and the transmission of communicable conditions will continue. It is also possible that other quiescent or emerging conditions could come to the fore and thus negate the overall gains made by current interventions relating to communicable conditions.

Emerging trends indicate that non-communicable conditions and injuries/ violence-related conditions too will increase in the foreseeable future and become the leading contributors to the heavy burden of disease in the country.

Future projections suggest that, if the current policy directions and interventions are sustained, by 2030 overall annual mortality will decrease by only 14 per cent (370,000 deaths). Among these deaths there would be 140,000 (39 per cent) due to communicable conditions, 170,000 (47 per cent) due to non-communicable conditions and 60,000 (14 per cent) due to injuries. Rather than this being a reduction in all domains, it represents reduction only in the absolute number of deaths due to communicable conditions (48 per cent). The projects show a 55 per cent increase in deaths due to non-communicable conditions and a 25 per cent increase in deaths due to injuries/ violence.

The Strategic Plan, in line with the Kenya Health Policy 2014–2030, intends to ensure a significant reduction in the overall ill health experienced by the Kenyan population by guaranteeing a reduction of at least 48 per cent in deaths due to communicable diseases and ensuring that the increase in deaths due to non-communicable conditions and injuries remains below levels of public health importance. It will also maintain a focus on emerging conditions. These results would translate into a 31 per cent reduction in the absolute numbers of deaths in the country, as opposed to only 14 per cent. Estimates in the WHO Global Burden of Disease: 2004 update (World Health Organization, 2008b) suggest a mortality rate of 0.68 per cent for a representative group of middle-income countries (Argentina, Brazil, Indonesia and Egypt), whereas the figure is 0.94 per cent in Kenya (38 per cent higher).

The Strategic Plan aims to achieve the above goals by supporting the provision of equitable, affordable and good-quality health and related services at the highest attainable standards for all Kenyans. It is designed to take the country towards the use of a PHC-focused approach, which remains the most efficient and cost-effective way of organizing a health system.

The aim of the Kenya Health Policy 2014–2030 is to attain a level and distribution of health services commensurate with those of a middle-income country. This calls for attainment of the targets shown in table 3.1.

Table 3.1: Targets of the Kenya Health Policy 2014–2030

Target	Current status (2010)	Policy target (2030)	Percentage change
Life expectancy at birth, in years	60	72	+16
Number of deaths per 1,000 people, per year	10.6	5.4	-50
Years lived with disability	12	8	+25

Source: Kenya Health Policy 2014–2030.

The Kenya Health Sector Strategic Plan 2018–2023 sets out specific actions related to major causes of morbidity and mortality in terms of the eradication, elimination, control or containment of either the disease itself or related risk factors:

- **Eradication** efforts will focus on polio and guinea-worm disease.
- **Elimination** efforts will focus on malaria, mother-to-child HIV transmission, maternal and newborn tetanus, measles, neglected tropical diseases and leprosy.
- **Control** efforts will focus on the top causes of morbidity/mortality: (1) HIV/AIDS; (2) perinatal conditions; (3) lower-respiratory-tract infections; (4) TB; (5) diarrhoeal diseases; (6) cerebrovascular diseases, (7) ischaemic heart disease; (8) road traffic accidents; (9) violence, including gender-based violence; (10) unipolar depressive disorders; (11) immunizable conditions other than measles and meningitis; and (12) new and re-emerging conditions.
- **Containment** efforts will focus on the main health risk factors: (1) unsafe sex; (2) unsafe water, sanitation and hygiene; (3) suboptimal breastfeeding; (4) childhood and maternal underweight; (5) indoor air pollution; (6) alcohol use; (7) tobacco use; (8) vitamin A deficiency; (9) high blood glucose; (10) high blood pressure; (11) zinc deficiency; (12) iron deficiency; and (13) lack of contraception.

These efforts will be implemented through delivery of the Kenya Essential Package for Health, which outlines the services and interventions needed at each level of care and for each age target to meet service-delivery priorities. **Through the Kenya Essential Package for Health, the sector is committed to moving progressively towards UHC.** This means, therefore, that all efforts during the period of implementation of the Strategic Plan will be geared towards:

a. introducing the interventions of the Kenya Essential Package for Health to populations where and when they are needed;

b. scaling up use of such interventions by populations who already have access to them;

c. reducing the potential for catastrophic health expenditures by the people who use the interventions.

These aims are to be achieved progressively, with a focus on specific services as shown in table 3.2.

Table 3.2: Priority services of the Kenya Essential Package for Health within the Kenya Health Sector Strategic Plan 2018–2023

Strategic objective	Services	Strategic Objective	Services
Eliminate communicable conditions	Immunization	Improve access to, and the quality of, people-centred essential health services	Outpatient
	Child health		Emergency
	Screening for communicable conditions		Maternity
	Antenatal care		Inpatient
	Prevention of mother-to-child HIV transmission		Clinical laboratory
	Integrated vector management		Specialized laboratory
	Promotion of good hygiene practices		Radiology
	Prevention of HIV and other sexually transmitted infections		Operative services
	Port health		Specialized therapy
	Control and prevention of neglected tropical diseases		Specialized services
Halt and reverse the rising burden of non-communicable conditions and mental disorders	Community screening for non-communicable conditions		Rehabilitation
	Institutional screening for non-communicable conditions	Strengthen collaboration with private and other sectors that have an impact on health	Safe water
	Workplace health and safety		Sanitation and hygiene
	Food quality and safety		Nutrition services
Reduce the burden of violence and injuries	Prehospital care		Pollution control
	Raising community awareness of violence and injuries		Housing
	Disaster management and response		School health
Minimize exposure to health risk factors	Health promotion, including health education		Hygiene
	Sexual education		Food fortification
	Substance-abuse education		Population management
	Micronutrient-deficiency control		Road infrastructure and Transport
	Promotion of physical activity		

3.7 Priority outputs of the Kenya Health Sector Strategic Plan 2018–2023

The key outputs of the Strategic Plan relate to improvements in access to health services, in demand for services and in the quality of services. These should be the expected result of any investments in health.

Overall improvements will be made by addressing a variety of issues:

- **Improvements in physical access** will focus on improving the availability of the services of the Kenya Essential Package for Health in hard-to-reach areas, upgrading dispensaries to functional PHC facilities, improving the functioning of health centres and addressing facility infrastructure challenges, such as the availability of electricity and water.

- **Improvements in financial access** will focus on ensuring the following services are free at the point of use: maternity services, PHC services, emergency services and specific services for HIV, TB, malaria and neglected tropical conditions.
- **Reduction of sociocultural barriers** will focus on ensuring that the services of the Kenya Essential Package for Health are available for populations for whom there are known barriers in accessing routine services. These populations are: women, people with disabilities, the elderly, children, youth and marginalized groups (who experience cultural barriers); health workers and commercial sex workers (who encounter social barriers); and those in prisons, camps for refugees and the displaced, schools, and army barracks (for whom the barriers relate to their congregate settings).
- **Improvements in demand for services** will focus on improving (i) the awareness of individuals, households and communities of the health problems that they are facing and the services available to solve them and (ii) health-seeking behaviour so that individuals, households and communities take actions to protect their own health and make best use of available promotive, preventive and curative health services.
- **Improvements in quality of care** will focus on improving the client experience, ensuring patient safety in using the services and ensuring the effectiveness of the care provided. Within this key output:
  - Efforts to improve client experiences will focus on ensuring regular monitoring of client perceptions of different services to continually align care with client expectations.
  - Efforts to ensure patient safety will focus on scaling up infection-prevention interventions and institutionalizing mortality audits.
  - Efforts to ensure the effectiveness of care will focus on regular monitoring of care outcomes, with a view to ensuring continued improvements in the sector.
  - The Kenya Quality Model for Health (Ministry of Health, 2014f) will serve as the vehicle for improving the quality of care in the sector through training.

Table 3.3. shows the priority impact and output indicators and the related targets throughout the period of implementation of the strategic plan.

Table 3.3 Priority indicators and targets of the Kenya Health Sector Strategic Plan 2018–2030

Impact indicator	Baseline	Midterm target	End target
Maternal Mortality ratio (per 100,000) live births	362	230	200
Under-5 mortality rate (per 1,000) live births	52	45	40
Infant mortality rate (per 1,000) live births	39	31	28
Newborn mortality rate (per 1,000) live births	22	17	15
Out-of-pocket payments as a percentage of total health expenditure	31.5	25	15

Output indicator	Baseline	2018 target	2019 target	2020 target	2021 target	2022 target
Percentage of deliveries attended by a skilled health worker	59	65	67	70	73	75
Percentage of women with unmet needs for family planning	18	17	16	15	14	13
Percentage of children fully immunized	74	76	79	80	82	85

3.8 Health security

Health threats can have an impact on the social, political and economic stability of a country and can have devastating effects on the household economy. Investment in health security thus aims to minimize vulnerability to acute public health events that endanger the collective health of populations across geographical regions and international boundaries. The Government has prioritized the building of its capacities in terms of prevention of, preparedness for, response to and recovery from public health emergencies, including the health-related impact of disasters, outbreaks and pandemics. Over the next five years, through the Strategic Plan, the health sector, in collaboration with other sectors, intends to strengthen the country's health system to make it more resilient, efficient and responsive to emergencies and other events of public health concern.

Achieving international public health security is one of the main challenges arising from the new and complex landscape of public health. Shared vulnerability implies shared responsibility. Strengthening countries' disease surveillance and response systems is central to improving public health security in each country and internationally. International public health security relies on the appropriate and timely management of public health risks, which in turn depends on effective national capacities and international and intersectoral collaboration.

Ensuring health security at all levels of society relies on coordinated multisectoral action and investment to build consolidated emergency preparedness. Preparedness leads to responses that are more timely and effective, which can significantly limit the human and economic consequences of the emergencies.

Key areas of investment

The prioritized areas of investment in relation to health security are:

- **Early warning, surveillance and monitoring of public health events.** The Ministry of Health is looking into establishing a national public health institute that will coordinate efforts to prevent, detect, respond to and monitor emergencies and public health events. The institute would bring together under one roof certain Ministry of Health units to ensure better coordination.
- **Emergency rapid response teams and emergency public-health response teams as surge teams at all levels of government.** Emergency operation centres are to be established in every county for better coordination and response in times of emergencies and other public health events. The centres will have all the technical capacities needed to respond to emergencies and public health events at the county level.
- **Emergency medical treatment and referral services.** An interlinked system for coordination of national and county ambulance services is being established. The system will be run through a public–private partnership with other ambulance service providers. There will be national and county dispatch centres that can be accessed by the population through the National Health Insurance Fund. The aim is to increase the accessibility and availability of ambulance referral services and to ensure efficient use of the service.
- **Health Emergency Fund.** The response to health emergencies and public health events has in the past been delayed owing to the bureaucratic nature of the process for obtaining financing. In this regard, the Ministry of Health is looking into establishing a Health Emergency Fund that can be accessed and used during the response to outbreaks of disease and other public health events.

Table 3.4: Indicators and targets for investments in essential interventions that are not related to achievement of the Sustainable Development Goals

Indicator	Baseline	Target				
		2018/19	2019/20	2020/21	2021/22	2022/23
Number of counties implementing the National Action Plan for Health Security	0	5	12	15	18	22
Number of surveillance systems for community health events established	0	7	10	10	10	10
Number of health emergency operations centres established	1	5	5	7	9	10
Number of county dispatch centres linked to the national ambulance command centre	0	10	15	20	30	35

The targets for these key areas of investment can be seen in table 3.4.

Contributions from other sectors

The activities of many other sectors have an impact on health and, as a result, health-related endeavours should be included in their programmes. Areas that relate to health include economic growth and employment, security and justice, education and early life, agriculture, food and nutrition, infrastructure, planning and transport, environment and sustainability, housing, land, culture and population growth. The health sector will therefore interact with and provide stewardship and guidance to other sectors to ensure that health is included in all their policies and seek to influence the design, implementation and monitoring of health-related interventions in those sectors.

The priority interventions in other sectors are:

- Advocacy relating to the provision of safe water, sanitation and hygiene for all
- Advocacy relating to the reduction of environmental pollution
- Advocacy relating to the physical planning and housing environment to promote healthy living, including the prevention of rickets
- Advocacy relating to all food and micronutrient fortifications
- Advocacy relating to road safety and injury prevention
- Advocacy relating to screening and management for zoonotic conditions and use of antibiotics for animal rearing (anti-microbial resistance).

Chapter Four: Health-System Investment Areas, Key Outputs and Related Actions

4.1 Introduction

This chapter provides detailed description of each health investment area, along with key outputs and actions. Health investments are defined as those investments that are primarily made to support attainment of Health goals and objectives of the Strategic Plan. The investment areas are as follows:

- Health service delivery
- Health leadership and governance
- Human resources for health
- Health products and technologies
- Health financing
- Health infrastructure
- Health information monitoring and evaluation
- Health research and development

4.2 Health service delivery

4.2.1 Overview

Organization of service delivery

According to the Kenya Health Policy 2014–2030, health services are organized in four tiers of care as shown in figure 4.1.

The current public health system also consists of the following six levels:

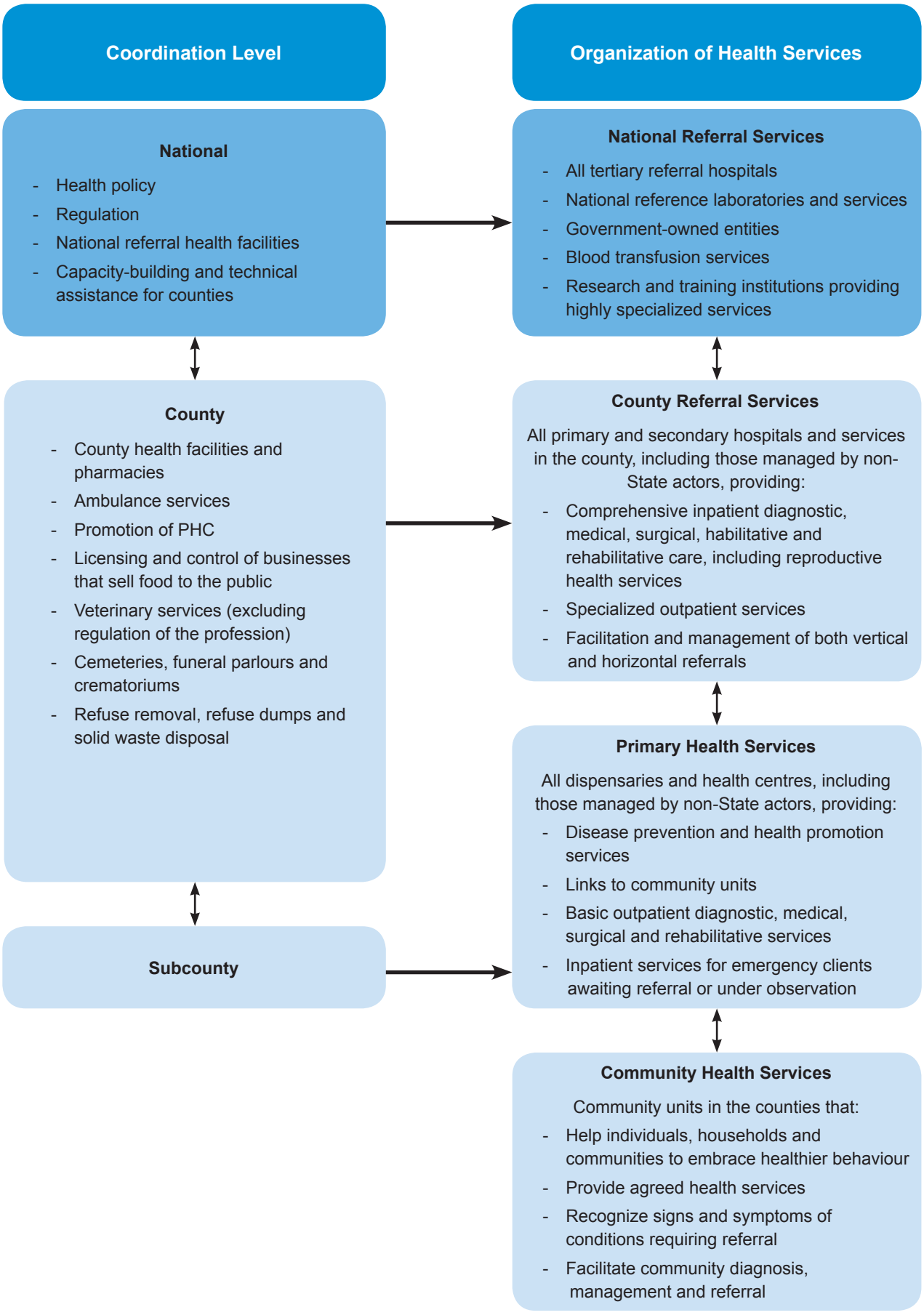
- Level 1: Community health units
- Level 2: Dispensaries
- Level 3: PHC centres
- Level 4: Primary referral facilities
- Level 5: Secondary referral facilities
- Level 6: Tertiary referral facilities

Private and faith-based health facilities use a grading system that is similar to that of the public health sector.

Areas of intervention in the organization of service delivery

Table 4.1 presents the areas of intervention in the organization of service delivery, along with their scope and focus.

Figure 4.1: Organization of service delivery



Source: Kenya Health Policy 2014–2030.

Table 4.1: Areas of intervention in organization of service delivery

Service area	Description	Scope and focus
Organization of the health service package	The services to be provided and the interlinkages	Identification and monitoring of the health interventions to be provided
		Organization of interventions by age group and service area
Organization of the health system	The structure of the health system to enable delivery of the desired services	Organization of the provision of services by level of care
Organization of community services	Enabling communities to engage in the improvement of their health	Development of comprehensive strategies to build demand for services by improving community awareness and health-seeking behaviour
		Improvement of service supply by taking programme-targeted services to the community
Organization of facility services	Internal organization of facilities for the provision of care and management of its delivery	Micro-planning to ensure service delivery to underserved communities
		Epidemic preparedness and planning
		Management and monitoring of therapeutics
		Patient safety initiatives
		Development of facility master plans for long-term development
Organization of emergency and referral services	Planning and delivery of services across the different levels of facility to ensure a holistic approach	Physical delivery
		E-health services
		Specimen movement, including reverse cold chain and reference laboratory services
		Expertise movement (reverse referral)
		Formulation of national referral strategy and guidelines
		Formulation of an emergency medical services policy
Coordination of national disasters, emergencies and outbreaks of disease	Organization of services to respond to national disasters, emergencies and outbreaks of disease	National government is responsible for coordination, in line with the relevant legislation and the disaster risk management policy, and for management of cross-border outbreaks, through intergovernmental mechanisms
Organization of outreach services	Conception of supply of services (preventive and curative) to communities according to their needs	Outreach by facilities to underserved communities
		Mobile clinics in hard-to-reach areas
Organization of supervision and mentorship services	Mentoring and support for health workers to enable them continually to improve their competences, skills and expertise in providing high-quality services	Integrated facilitative supervision
		Emergency supervision
		Technical supervision and coaching

Approach

The Strategic Plan uses an integrated people-centred approach to service delivery. It focuses on the health of people in their communities and their crucial role in shaping health policy and the services that they receive. These services include promotive, preventive, curative, rehabilitative and palliative care, with a focus on PHC.

Increased access to good-quality diagnostic and forensic services will increase demand for and use of these services. Under the Kenya Health Strategy 2018–2023, the turnaround time and backlog of services rendered will be monitored at diagnostic and forensic laboratories. The Government is committed to establishing 10 new comprehensive laboratories and accrediting 95 per cent of the existing laboratories by 2023.

To enhance access to good-quality care and treatment services, an independent regulatory authority for the enforcement of quality standards, including the Kenya Quality Model for Health, will be established and inspections carried out to ensure that good-quality services are rendered. By 2023, 70 per cent of facilities should have been inspected at least once over the previous two years. At least 50 per cent of health workers will be received training in improving the quality of care. Private and public partnerships will be encouraged in the provision of laboratory and diagnostic services, with monitoring of the number of memorandums of understanding signed by the counties. Furthermore, to strengthen the overall referral system, counties will develop and implement their own comprehensive referral systems.

To enhance access to good-quality rehabilitative and palliative services, the strategy will monitor the proportion of existing palliative centres being renovated to offer optimal services. Seven designated substance- and drug-use centres and centres for provision of rehabilitative services to children with special needs will be established.

To improve preventive and promotive services, the community health will play a great role. The number of community health units established and the number of community health extension workers trained will be monitored. The aim is to reduce the prevalence of insufficient physical activity from 6.5 per cent to 5 per cent and reduce mortality attributable to dietary factors from 31 deaths per 100,000 people to 26.

To make the health system resilient to emergencies and health insecurity, the functioning of coordination structures will be monitored in terms of the regularity of their meetings and representation of the various sectors and entities within the Ministry of Health. In addition, the aim is to reduce the response time following a call to the toll-free national emergency hotline from 30 to 15 minutes.

4.2.2 Key outputs and actions

In terms of service delivery, the Strategic Plan focuses on the following areas:

1. Increasing access to care that is equitable in terms of quality and availability of services at all levels, including emergency care;
2. Creating and sustaining demand for improved preventive and promotive health-care services;
3. Strengthening community health systems in order to be responsive and resilient to public health emergencies and outbreaks of disease (health security).

Focus areas with their associated actions

Focus area 1: Increasing access to care that is equitable in terms of quality and availability of services at all levels, including emergency care

Kenya is committed to implementation of UHC as one of the priorities under the "Big Four" agenda, with the aspiration that, by 2022, everyone in the country will have access to and use of the essential services that they need for their health and well-being through a single unified benefit package and without the risk of financial hardship.

Related key areas for action include:

- Health reforms including the review of legislation, creation of a benefit and tariffs authority and institutional reforms;
- Strengthening of joint health inspections of facilities to ensure accordance with minimum quality standards;
- Establishment of an independent quality assurance/regulatory body to fast-track implementation of the Kenya Quality Model for Health;
- Institutionalization of continuous quality-control initiatives;
- Capacity-building of health workers across all levels of service delivery;
- Strengthening of comprehensive quality assurance for diagnostic, forensic and radiological services and the disposal of radioactive materials;
- Establishment of 10 comprehensive regional diagnostic centres (laboratory and imaging services), with star-level accreditation as appropriate, and a functional national forensic laboratory;
- Development of a functional tiered and networked laboratory system;
- Strengthening of comprehensive, good-quality food analysis and public health inspection;
- Strengthening of the health information system, ensuring unity and addressing information in all subsystems;
- Strengthening of referral services across all levels of service delivery;
- Conduct of regular health facility assessments and surveys for monitoring and tracking service delivery;
- Regulation of traditional and alternative medicine practice and related products;
- Leverage of the use of technology to enhance efficiency in service delivery;
- Expansion of specialized services for inpatient and outpatient management of communicable conditions, non-communicable conditions and neglected tropical diseases;
- Capacity-building relating to the provision of emergency obstetric and newborn care;
- Increasing the number of maternal and perinatal death audits and improving reporting to address deficiencies in the quality of care;
- Improvement of access services related to sexual and gender-based violence;
- Scaling up of access to good-quality rehabilitative and palliative services, on the basis of a multisectoral approach;
- Establishment of a health emergency fund and emergency medical-care package;
- Strengthening of county and national emergency referral systems and ambulance services.

Focus area 2: Creating and sustaining demand for improved preventive and promotive health-care services

Health promotion and disease prevention involve helping individuals and communities to have more control over their health by adopting healthy behaviour and making conscious choices that reduce their risk of developing disease or reduce the severity of the disease. They seek to address social and economic determinants of health and health inequities, as these can have a major effect on modifiable risk factors and behaviour.

The key issues identified in the current health landscape, as articulated in the 2016 Midterm Review of the Kenya health Sector Strategic and Investment Plan, include lack of implementation of PHC and community high-impact interventions; an ill-affordable essential package for health; weak coordination among programmes and sectors involved in disease prevention/health promotion; low health literacy and understanding of risk factors; low levels of population screening and early identification of priority conditions; poor access to and coverage by various essential

services (relating, for example, to reproductive, maternal, newborn and child health, non-communicable conditions, neglected tropical diseases, communicable conditions and nutrition); and inequities in service provision for vulnerable populations (such as older persons and hard-to-reach populations).

Related key areas for action include:

- Improvements in access to PHC services at all levels, in line with the Kenya Essential Package for Health;
- Review and revitalization of the Kenya Essential Package for Health in preparation of UHC;
- Development of a PHC strategy;
- Alignment and harmonization of the community health strategy (including norms and standards) and the Strategic Plan;
- Establishment/strengthening of coordination mechanisms and partnerships for the delivery of preventive health care and health promotion;
- Promotion of education and social behaviour change through communication on disease prevention and health promotion services;
- Promotion of access to and use of reproductive, maternal and newborn health services, including focused antenatal care, skilled delivery, postnatal care and family planning;
- Scaling up of focused antenatal care, using the suggested four visits;
- Promotion of reproductive health information for adolescents and scaling up of services to address early and unintended pregnancies and sexually transmitted infections, including HIV;
- Implementation of the National Adolescent Sexual and Reproductive Health Policy (Ministry of Health, 2015b);
- Scaling up of services related to immunization, growth monitoring, nutrition and the integrated management of childhood illness;
- Development and promote of access to integrated services for older people;
- Creation of a policy-enabling environment for addressing the health needs of people with disabilities;
- Regulation and control of modifiable risk factors at the population level;
- Screening and early detection of communicable and non-communicable conditions and related risk factors at all ages;
- Review of the Public Health Act 1986, revised 2012 (National Council for Law Reporting, 2012b) to align it to the Health Act 2017 and UHC aspirations;
- Collaboration with health-related sectors and advocacy in relation to the provision of safe water, sanitation and hygiene for all, reduction of environmental pollution, promotion of healthy living in the physical planning and housing environment, food micronutrient fortifications and road safety/injury prevention;
- Advocacy relating to screening for and the management of zoonotic conditions and promotion of the rational use of antibiotics in humans and animal-rearing to prevent antimicrobial resistance.

Focus area 3: Strengthening community and health systems to be responsive and resilient to public health emergencies and outbreaks of disease (health security)

Given the impact that public health emergencies and health threats can have on the social, political and economic stability of a country and on the household economy, the Government has prioritized the building of its capacities in terms of prevention of, preparedness for, response to and recovery from public health emergencies.

Related key areas for action include:

- Establishment the Kenya National Public Health Institute, which will be responsible for the coordination and strengthening of public health systems for the prevention

and detection of, preparedness for and response to diseases, environmental hazards and other public health risks and threats;

- Implementation of the National Action Plan for Health Security 2019–2023
- Strengthening of early-warning, surveillance and monitoring systems for epidemics, disease outbreaks, antimicrobial resistance and other public health events;
- Expansion of community-based disease surveillance (event-based surveillance);
- Conduct of vulnerability and risk mapping for disaster management purposes;
- Strengthening of the National Public Health Emergency Operations Centre and capacity-building of counties to enable them to establish their own public health emergency operation centres;
- Expansion and reinforcement of the capacity of emergency rapid response teams/emergency public health response and surge teams at all levels of government;
- Establishment of antimicrobial stewardship programmes in all counties and in national referral hospitals;
- Development of guidelines and training modules for antimicrobial stewardship programmes in hospitals and community settings.

4.3 Health leadership and governance

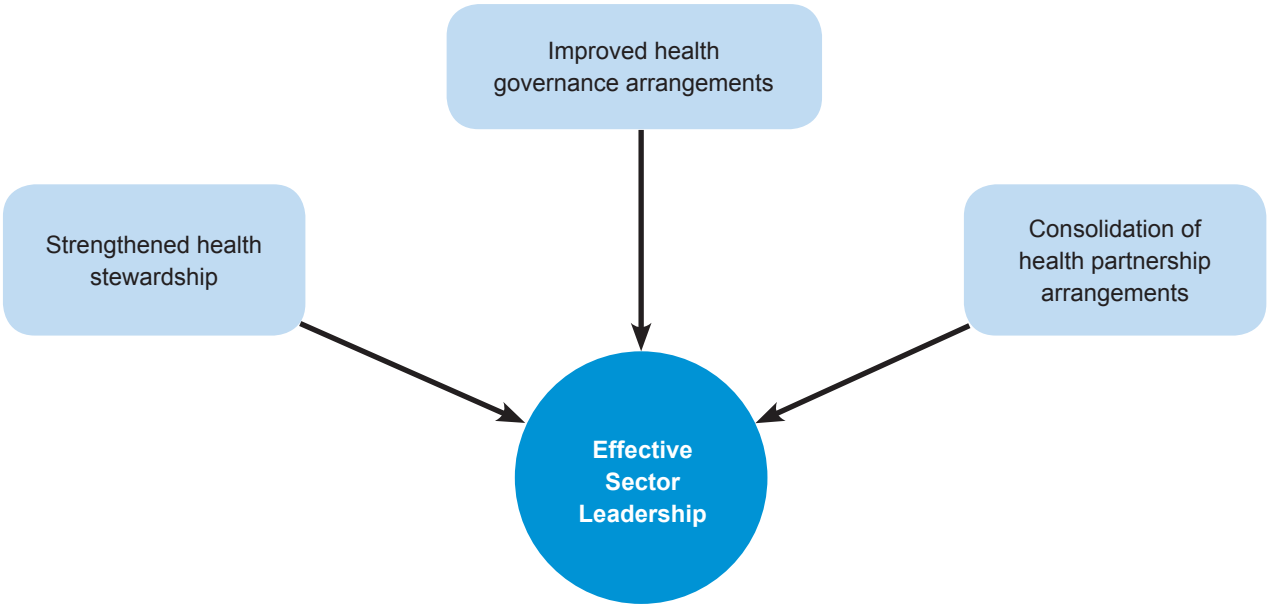
4.3.1 Overview

The concepts of leadership and governance include the provision of strategic direction and the development of appropriate plans and policies that involve effective oversight, regulation and motivation, include essential partnerships and integrate all the building blocks of the health system to achieve the desired results.

Without effective leadership and good governance at all levels in private, public and civil society organizations, it is virtually impossible to sustain effective administration, let alone achieve goals and maintain good-quality health-care services.

The Strategic Plan complements the Kenya Health Policy 2014–2030 and the Kenya Vision 2030 and seeks to harmonize interventions with those of the Third Medium-Term Plan 2018–2022 of the Kenya Vision 2030 and the County Integrated Development Plans 2018–2022.

Figure 4.2: Requirements for effective health-sector leadership



4.3.2 Key outputs and actions

In terms of leadership and governance, the Strategic Plan focuses on the following areas:

1. Improving health-system stewardship and public and social accountability at all levels;
2. Implementing appropriate health governance structures at the national level and in all 47 counties;
3. Establishing and coordinating health and strategic partnership arrangements at all levels;
4. Advocating increased support for and investment in health systems at all levels among policymakers and parliamentarians.

Focus areas with their associated actions

Focus area 1: Improving health-system stewardship and public and social accountability at all levels

Related key areas for action include:

- Development, implementation and review of strategic and other plans, policies, guidelines, norms and standards at all applicable levels, including the national, ministerial, semi-autonomous-government-agency, county, sector and programme levels;
- Development of appropriate organizational structures, management structures and managerial processes at all levels of function and provision of adequate human and financial resources of each level of function;
- Generation of evidence and policy briefs for decision-making;
- Adoption of social accountability approaches at all levels of service delivery to address efficiency, transparency and participation in the use of the resources;
- Analysis of and response to gender-related considerations at the different levels of health planning and service delivery.

Focus area 2: Implementing appropriate health governance structures at the national level and in all 47 counties

Related key areas for action include:

- Development of a normative framework to anchor organizational structures at all levels of function;
- Improvement of the capacity of managers, institutions and systems responsible for service delivery through job shadowing, on-the-job training, in-service training and refresher courses.

Focus area 3: Establishing and coordinating health and strategic partnership arrangements at all levels

Related key areas for action include:

- Strengthening of health sector coordination and strategic partnerships in accordance with the sector-wide approach and Kenya Health Partnership and Coordination Framework 2018–2030;
- Development of harmonized tools, ensuring one plan, one budget and one monitoring and evaluation process;
- Resource mapping and tracking in health.

Focus area 4: Advocating increased support for and investment in health systems at all levels among policymakers and parliamentarians

Related key areas for action include:

- Advocacy among policy makers, legislators and donors aimed at bringing about increased and sustained investment in health, protected budgetary allocation and the strengthening of systems using analysis of the national health accounts, public expenditure reviews, public expenditure tracking surveys and the medium-term expenditure framework;
- Establishment of partnerships with civil society;

- Knowledge management, ensuring that policies, plans and standard operating procedures are documented, available and disseminated to partners and other stakeholders;
- Promotion of public accountability.

4.4 Human resources for health

4.4.1 Overview

To achieve its goals, the health sector requires adequate numbers of well-trained, knowledgeable, competent and equitably distributed human resources for health. PHC is critical for achieving UHC and it is therefore necessary to invest specifically inthe community-level workforce, for example in community health extension workers.

The health sector has been given the huge responsibility of creating the pool of health workers needed to achieve UHC and realization of the Kenya Vision 2030. The Kenya Health Sector Human Resources Strategy 2014–2018 (Ministry of Health, 2014e) focused on six strategic outcomes:

- Adequate numbers of equitably distributed human resources for health;
- A conducive environment that attracts and retains human resources for health;
- A responsive institutional framework that supports performance management of human resources for health;
- Responsive human resource development systems and practices;
- Strengthened planning for human resource development;
- Adequate financial resources mobilized to support investment in human resources for health.

Implementation of the strategy has included the development of various guidelines on human resource management, human resource development and human resource information systems, which include the Training Policy (Ministry of Health, 2016g) and the Devolved Human Resources Management Policy Guidelines for Human Resources for Health (Ministry of Health, 2015c). These serve as guidance for the national and county governments in setting up systems for human resource management, human resource development and use of data on human resources for informed decision-making, including in the establishment of county units for the management of human resources for health.

Several counties have based the modelling of their own county strategic plans on the Health Sector Human Resources Strategy and have identified priority interventions for implementation by their County Public Service Boards and County Departments of Public Service to improve the policy environment relating to human resources management at the county level.

In 2013, the Ministry of Health established the Human Resources for Health Inter-Agency Coordinating Committee with a mandate to spearhead human resource reforms to improve effectiveness and efficiency in the delivery of health services.

4.4.2 Key outputs and actions

In terms of human resources for health, the Strategic Plan focuses on:

1. Ensuring adequate numbers of appropriately and equitably distributed human resources for health;
2. Improving and institutionalizing management of human resources for health in the context of decentralization;
3. Streamlining training for human resources for health for high-level performance in the context of decentralization;
4. Strengthening the PHC capacity of community-level health workers;
5. Improving the use of data and information relating to human resources for health in decision-making and planning.

Focus areas with their associated actions

Focus area 1: Ensuring adequate number of appropriately and equitably distributed human resources for health

Human resources for health have for a long time been inadequate in all regions of the country. Surveys have indicated that health workers have been inappropriately and inequitably distributed. A workforce of adequate numbers will be achieved by attracting and recruiting health workers, distributing them equitably and retaining them over time.

Related key areas for action include:

- Recruitment of additional health workers;
- Rationalization of the health worker skill mix appropriate for each service delivery point;
- Implementation, across the 47 counties, of the Guidelines on Cross-sharing of Specialists in the Health Sector (Ministry of Health, 2017g), with emphasis on regular staff audits;
- Operation of the Kenya Health Human Resources Advisory Council formed under the Health Act 2017 to review policy and harmonize norms and standards relating to: the posting of interns in government facilities at the national and county levels; the intercounty transfer of health-care professionals; the transfer of health-care professionals from one level of government to another; the welfare and the scheme of service relating to health professionals; the management and rotation of specialists; and the maintenance of a master register of all health practitioners in the counties;
- Review and implementation of the current Incentive Framework for Attraction and Retention of the Health Workforce (Ministry of Health, 2017h) and consideration of accommodation facilities in hard-to-reach areas;
- Improvement of the work environment by ensuring safety and security in the workplace and establishment of mechanisms to motivate and reward health workers;
- Implementation of the succession-management policy for staff career progression;
- Introduction of a mentorship programme using retiring staff, a meritocracy-based management approach, a quality-controlled role-sharing scheme, flexible working hours and automation of processes.

Focus area 2: Improving and institutionalizing management of human resources for health in the context of decentralization

The Strategic Plan views human resources as a vital resource in achieving UHC goals and aspirations. It therefore envisions a strong human resource management system at both the governance and service-delivery levels.

Related key areas for action include:

- Strengthening of human resource management capacity at the national and county levels, including the establishment and staffing of units for the management of human resources for health in county health departments;
- Greater budgetary allocation, beyond salaries, for improvement of human resource management systems and processes, induction of health workers, supportive supervision of human resources for health and performance review mechanisms;
- Operation of the Kenya Health Professions Oversight Authority and the Kenya Health Human Resource Advisory Council;
- Harmonization of salaries in line with the guidelines of the Salaries and Remuneration Commission;
- Strengthening and integration of existing human resource information systems;
- Strengthening of coordination of human resource management among county

governments, between the national and county governments and with medical training institutions through various dialogue platforms on human resources for health;

- Development of mechanisms for the management of unrecognized professionals;
- Conduct of regular system audits to ensure compliance;
- Conduct of assessments using the Workload Indicators of Staffing Need method (World Health Organization, 2010a);
- Strengthening of multisectoral collaboration through the national Human Resources for Health Inter-Agency Coordinating Committee;
- Development of mechanisms to engage effectively with health-worker unions to avert industrial strikes;
- Identification of minimum service standards;
- Enhancement of capacities of health managers through training, including in leadership and management, financing and use of the county human resource budgeting tool, employee relations, disciplinary matters and negotiation skills;
- Tracking of progress in strengthening the human resource management system using the county Human Resources for Health Maturation tool.

Focus area 3: Streamlining training for human resources for health for high-level performance in the context of decentralization

Training is a key component of producing competent and skilled health workers and developing their capacities. The Strategic Plan will ensure that training funds are ring-fenced to safeguard and ensure the continued production and development of health workers.

Related key areas for action include:

- Establishment of a fund to support the training of health workers to meet the demands of the population in hard-to-reach areas;
- Generation of increased opportunities for training and capacity-building through the obtainment of funding accessible to the health sector;
- Expansion of training programmes in universities and medical training colleges, including those relating to maintenance of medical equipment to support the Managed Equipment Services project;
- Review of curricula to ensure that they address emerging issues, including UHC and health services for people with disabilities and other vulnerable groups;
- Establishment of more satellite campuses of universities and the Kenya Medical Training College that are appropriately staffed and equipped for medical education;
- Fostering of platforms for knowledge exchange between health practitioners and academia;
- Generation of a training calendar and training projections and collection of feedback on the quality of the training through post-training follow-up, mentorship and supportive supervision;
- Accreditation of teaching facilities, equipment of their staff with the necessary skills and construction of laboratories linked to medical training institutions;
- Development of innovative learning-delivery methods, including e-learning, blended learning and on-the job training, covering a wide range of health workers;
- Harmonization of post-graduate training (including residency/fellowships), internships and continuous professional development for service-delivery competence and licence renewal;

- Strengthening of the quality of training by faculty and clinical instructors through teaching blended with ICT, especially e-learning, and accreditation of more clinical placement sites and internship sites for pre-service training;
- Standardization of training across the health sector through enforcement of the Training Policy at the national and county levels and adherence to the rules of regulatory boards and councils;
- Enhancement of capacities to manage health systems among health workers at all levels.

Focus area 4: Strengthening the PHC capacity of community-level health workers

Community-level services are critical for achieving UHC. There is evidence that 90 per cent of preventable diseases emanate from inadequate community health interventions, despite their being low-cost and high-impact.

Related key areas for action include:

- Establishment of a special fund for the remuneration of community-level health workers;
- Strengthening of links with community facilities and the creation of a conducive work environment by providing appropriate tools or incentives, such as medicines, bicycles, motorcycles, data-collection tools, certificates and identification tags;
- Increase in the number of community health extension workers and community health volunteers to achieve optimum numbers according to the population served, as per WHO norms and standards;
- Alignment of the community health extension worker scheme of service with the community health strategy;
- Use of the Kenya Medical Training College curriculum, recently revised to incorporate UHC principles, to train and certify a critical mass of community health extension workers with a view to ensuring provision of preventive and promotive health care at the community level.

Focus area 5: Improving the use of data and information relating to human resources for health in decision-making and planning

A strong, integrated human resources information system is essential for making key policy and management decisions about service delivery. Information about workforce distribution, inadequate observance of human resource norms and standards and the attrition rate is invaluable for planning. The health sector thus requires current, accurate data on its human resources.

Related key areas for action include:

- Enhancement of the interoperability of the human resource information system, the National Health Workforce Accounts system, other systems and government and regulatory systems;
- Use of the open-source iHRIS Manage software to link all training institutions and therefore manage the pre- and in-service training of health workers;
- Provision of personnel to support regular data management, analytics and the onward sharing of information with health leaders;
- Allocation of more resources towards support for technological infrastructure (hardware, software and the maintenance thereof) and Internet connectivity.

4.5 Health products and technologies

4.5.1 Overview

Health-commodity security is critical for achieving UHC because no services can be rendered without the necessary health products and technologies. It requires effective and efficient public-health supply chains that can deliver good-quality health products and technologies in a reliable

and cost-effective way. An increase in the scope of the commodities procured is also necessary in support of revisions to the Kenya Essential Package for Health. These focus on responsiveness to the needs of population in terms, for example, of expansion of PHC services (e.g., screening commodities for laboratories) and coverage of more non-communicable conditions. In addition, price reduction strategies, prudent commodity management and rational use will play a greater role in ensuring access to the products and technologies.

4.5.2 Key outputs and actions

In terms of health products and technologies, the Strategic Plan focuses on the following areas:

1. Increasing access to all health commodities;
2. Enhancing the quality of all health commodities;
3. Ensuring prudent management of health commodities;
4. Enhancing supportive supervision in relation to health commodities;
5. Strengthening the legal identity of and advocacy relating to the Kenya National Blood Transfusion Service;
6. Ensuring an adequate, safe and equitable supply of blood and blood products;
7. Enhancing the quality of blood transfusion services and products.

Focus areas with their associated actions

Focus area 1: Increasing access to all health commodities

Related key areas for action include:

- Increase in the budgetary allocation to the Kenya Medical Supplies Authority in order to enhance the supply of essential medicines to meet UHC needs;
- Expansion of the Essential Medicines List and the Essential Medical Supplies List, in line with the review of the Kenya Essential Package for Health, to incorporate new commodities, such as those relating to chronic diseases (e.g., chemotherapy medicines and protective wear for chemotherapy), dialysis, laboratory screening and implants;
- Improved compliance with guidelines on the purchase, prescription and dispensing of antimicrobials;
- Streamlining of the processes for reviewing and authorizing the marketing of new antibiotics that address priority infectious diseases in the country;
- Negotiation with pharmaceutical companies to reduce the cost of medicines and other health commodities;
- Adherence to article 155 of the Public Procurement and Asset Disposal Act 2015, revised 2016 (National Council for Law Reporting, 2016), which gives preference to local manufacturers to reduce the cost of commodities;
- Ring-fencing of health commodity funds at the county level through review of the Public Finance Management Act 2012 (National Council for Law Reporting, 2012c) and the depositing by counties of commodity funds with the Kenya Medical Supplies Authority as drawing rights;
- Use of the provisions of the World Trade Organization Agreement on Trade-Related Aspects of Intellectual Property Rights under the Industrial Property Act 2001, revised 2012 (National Council for Law Reporting, 2012d), to increase access to medicines and health commodities.

Focus area 2: Enhancing the quality of all health commodities

Related key areas for action include:

- Conduct of inspections of manufacturing practices at manufacturing sites, both local and international;
- Quality-control testing;

- Intensification of pharmacovigilance by enhancing the reporting of poor-quality commodities and adverse reactions, including in relation to antibiotics;
- Conduct of post-marketing surveillance for selected life-saving commodities, including antibiotics;
- Improvement of end-user storage capacities to maintain product quality by enhancing infrastructure such as storage building, fridges and the cold chain for vaccines;
- Introduction of GS1 standards for tracking in relation to health products and technologies to improve patient safeguards against counterfeit, substandard and falsified medicines.

Focus area 3: Ensuring prudent management of health commodities.

Prudent management of health commodities is required to minimize wastage due to pilferage and expiry.

Related key areas for action include:

- Continuous integrated capacity-building in health-commodity management for all personnel handling health commodities;
- Minimization of the percentage of health-facility commodities that are out of stock and have expired;
- Establishment of antimicrobial stewardship programmes in all 47 counties and national referral hospitals;
- Development of guidelines and training modules relating to antimicrobial stewardship programmes in hospitals and community settings to promote appropriate use of antimicrobial agents;
- Digitalization of the commodity supply chain for increased efficiency;
- Improvement of health-commodity supply-chain management through use of value-added networks.

Focus area 4: Enhancing supportive supervision in relation to health commodities.

Related key areas for action include:

- Supervision and monitoring of rational commodity use and stock management to enable redistribution of excess commodities across facilities within a region/county;
- Strengthening of commodity-security oversight mechanisms at the national and county levels, for example through coordinating committees and technical working groups;
- Conduct of audits of health product and technology supply chains;
- Provision of mentorship for antimicrobial stewardship and antimicrobial resistance surveillance.

Focus area 5: Strengthening the legal identity of and advocacy in relation to the Kenya National Blood Transfusion Service.

Related key areas for action include:

- Advocacy relating to the enactment of a blood management bill by the parliament;
- Review, development and implementation of policies, strategies and guidelines relating to the Kenya National Blood Transfusion Service, in line with the current institutional framework aimed at the achievement of UHC.

Focus area 6: Ensuring an adequate, safe and equitable supply of blood and blood products.

Related key areas for action include:

- Increased collection of blood, including for its components, in line with current technologies.;
- Establishment of more blood collection sites;
- Testing and preparation of blood components using modern methods.

Focus area 7: Enhancing the quality of blood transfusion services and products

Related key areas for action include:

- Strengthening of reporting at the level of the Kenya National Blood Transfusion Service and in transfusion facilities;
- Increased use of data within the blood service;
- Maintenance of national and/or international blood transfusion service standards.

4.6 Health financing

4.6.1 Overview

The main objective in terms of health financing is to ensure that there are adequate resources for the operation of the health system.

4.6.2 Key outputs and actions

In terms of health financing, the Strategic Plan focuses on the following areas:

1. Increasing public financing for health;
2. Maximizing the availability of resources and fairness in relation to their use (risk pooling);
3. Strengthening strategic purchasing.

Focus areas with their associated actions

Focus area 1: Increasing public financing for health

Related key areas for action include:

- Greater government budget allocation to health, with an increase from 6 to 13 per cent of total government expenditure;
- Increased health insurance coverage through the instigation of mandatory contributions and complementary private health insurance;
- Setting up of institutional mechanisms for pooling and managing health revenues in an efficient manner;
- Strengthening of the regulatory framework for the insurance industry;
- Separation of pooling and purchasing functions and establishment of a single social health-insurance fund;
- Promotion of private sector investment in the health sector, targeting UHC, human resources, infrastructure, pharmaceutical manufacturing and complementary health insurance;
- Alignment and harmonization of donor support through implementation of the Kenya Health Partnership and Coordination Framework 2018–2030, which is built on the five principles of aid effectiveness: government ownership, alignment, harmonization, managing for results and mutual accountability.

Focus area 2: Maximizing the availability of resources and fairness in relation to their use (risk pooling)

To ensure financial risk protection for all, provision of the Kenya Essential Package for Health will be funded primarily through prepayment mechanisms, reducing out-of-pocket payments to a minimum. The long-term goal is to ensure that the population has equitable access to the Kenya Essential Package for Health without the risk of impoverishment.

Related key areas for action include:

- Establishment of a single social health-insurance fund as the main pooling and purchasing agency for services of the Kenya Essential Package for Health;
- Revision of the legal and regulatory framework to include the social health-Insurance fund and ensure that health insurance is mandatory for all Kenyans;
- Reorganization and strengthening of institutions and organizations involved in revenue collection, pooling and purchasing;
- Strengthening of safety-net mechanisms for the poor and vulnerable through the establishment of a system to

identify potential beneficiaries of health insurance subsidies;

- Compilation of an accurate database of all the poor and vulnerable by updating and expanding the range of target groups;
- Promotion and development of affordable private health-insurance products, including micro-health insurance;
- Implementation of action plans to increase coverage of the population in terms of health insurance through a combination of social health insurance and other prepayment mechanisms.

Focus area 3: Strengthening strategic purchasing

The Government will ensure that the social health-insurance fund has the authority, information and instruments needed to be able to engage in strategic purchasing and that it will create a transparent and stable environment in which strategic purchasing can flourish and improve the quality of care.

Related key areas for action include:

- Establishment of adequate institutional arrangements and a regulatory framework covering both purchasers and providers, with clarity in the categorization of health-care providers (county departments of health for direct provision of population-based services, PHC networks and hospitals). The social health-insurance fund will act as the purchaser for the Kenya Essential Package for Health;
- Development of guidelines to facilitate the contracting of health-care service providers by agents of the social health-insurance fund;
- Purchasing carried out according to the health needs of the population and full financing of all health services at county level following devolution;
- Design of appropriate result-based financing mechanisms for population-based services provided directly by county health departments;
- Development of appropriate reimbursement mechanisms for facility-based preventive and promotive care;
- Design of appropriate fee-for-service payment mechanisms for providers of facility-based curative and rehabilitative services;
- Establishment of a comprehensive national accreditation framework informed by the position paper on and review of the Kenya Quality Model for Health.

4.7 Health infrastructure

4.7.1 Overview

Functional, efficient and sustainable health infrastructure, along with effective maintenance, is key to the delivery of good-quality health-care services.

4.7.2 Key outputs and actions

In terms of health infrastructure, the Strategic Plan focuses on the following areas:

1. Expanding and improving physical infrastructure (buildings, plants, utilities, energy sources and others);
2. Expanding and improving use of equipment (medical devices, hospital equipment and other technologies);
3. Improving ICT for all facilities;
4. Providing reliable transport services (ambulances, utility motor vehicles and others).

Focus areas with their associated actions

Focus area 1: Expanding and improving physical infrastructure (buildings, plants, utilities, energy sources and others)

It is important for the health sector to ensure that physical infrastructure meets the requirements of related norms and standards. Special

attention will be given to the rehabilitation of dilapidated buildings and ensuring that there is proper maintenance of building and utilities, thanks to adequate planning, the implementation of maintenance schedules and the provision of adequate funding.

Related key areas for action include:

- Implementation of infrastructure norms and standards in the health sector;
- Management of physical infrastructure using a multisectoral approach;
- Development of a preventive maintenance plan for physical infrastructure;
- Improvement of access to health services within the 5 km of people's homes;
- Establishment of specialized hospitals or the expansion of the existing ones through private–public partnerships;
- Expansion of infrastructure and equipment for molecular diagnostic of drug-resistant TB;
- Establishment of 10 facilities as centres of excellence for multidrug-resistant TB and isolation facilities;
- Establishment of an East African Community Regional Centre of Excellence in Medical Diagnostics;
- Establishment of East African Community regional e-health infrastructure to facilitate service delivery through telemedicine;
- Establishment of an East Africa Kidney Institute for management of kidney conditions;
- Expansion of two national cancer centres in Kenyatta National Hospital and Moi Teaching and Referral Hospital and establishment of regional cancer centres in Kisii, Mombasa, Nakuru and Nyeri.

Focus area 2: Expanding and improving use of equipment (medical devices, hospital equipment and other technologies)

The availability and functionality of medical devices and hospital equipment is critical for inpatient care. There is a rising demand for modern therapeutic and diagnostic equipment owing to the increase in non-communicable conditions. The Ministry of Health therefore needs to continue investing in modern medical equipment and devices, implementing maintenance schedules and allocating adequate funding.

Related key areas for action include:

- Review and development of standards/ guidelines relating to all aspects of health technology management.;
- Mobilization and allocation of adequate resources for the procurement and maintenance of medical devices;
- Finalization and implementation of policy on the management of medical devices in the country;
- Establishment of a local equipment assembly and repair industry to accommodate technology changes and ensure affordability of and continuity in the maintenance and repair of equipment (e.g., oxygen generation, intravenous-fluid production);
- Development, in collaboration with private institutions, of independently powered clinical innovations aimed at addressing high infant mortality rates, such as a wind-up doppler ultrasound fetal heart-rate monitor or apparatus powered by solar or wind energy;
- Modernization of teaching and referral hospitals;
- Upgrade and equipping of 100 (at least two facilities per county) level 4 hospitals to ensure that they conform with the relevant norms and standards;
- Expansion (completion) of the Medical Equipment Services project to include components (for laboratories and

oncology), magnetic resonance imaging and computed tomography scanning, surgical theatres, intensive care units, the Central Sterilization and Supplies Department and dialysis equipment;

- Provision of intensive care unit (neonatal, paediatric and adult), nephrology/ dialysis, radiology diagnostic, oncology theatre and laboratory equipment;
- Improvement of the capacity to produce skilled and professional human resources for health in the region through harmonization of regional training and practice standards and guidelines;
- Modernization of Kenyatta National Hospital.

Focus area 3: Improving ICT for all facilities

ICT plays a critical role in improving health care for individuals and community. Through the development of databases and other applications, it provides a means of reducing health system efficiencies and preventing medical error.

The Kenya National e-Health Policy 2016–2030(Ministry of Health 2016c) has five focus areas: telemedicine, health information systems, information for citizens; mobile-health and e-learning. In view of changes in technology, there is need to review the policy to align it with current emerging health issues and the technology available. It is worth noting, however, that ICT infrastructure is not available in all essential areas. ICT-related issues are not well articulated in the investment plans of the health sector and there are limited resources for procurement and maintenance of ICT.

Related key areas for action include:

- Enhanced multisectoral planning regarding ICT infrastructure;
- Development of ICT guidelines and deployment infrastructure in all levels of care;
- Mobilization and allocation of adequate resources for the procurement and maintenance of ICT equipment and infrastructure;
- Adoption of modern technology that enables patients to conduct crucial tests themselves, send the results directly to a medical practitioner and receive a response via the Internet;
- Development and strengthening of mechanisms for reporting adverse incidents relating to medical devices.

Focus area 4: Providing reliable transport services (ambulances, utility motor vehicles and others)

Transport is a crucial part of ensuring appropriate health coverage within the population. The Ministry of Health and county health departments need to invest in the acquisition of appropriate and well-equipped ambulances, utility vehicles, motorcycles and bicycles. There is still a great shortage in the number of functional ambulances in comparison with the stipulations of the Kenya Board of Standards, making it hard for the referral systems to function well. Furthermore, the ambulances are not well maintained and lack appropriate equipment and therefore end up being transport rather than referral vehicles. The health sector lacks a policy that defines the type and number of vehicles required for the provision of an effective, efficient transport system at the different levels of service delivery, vehicle maintenance schedules, procedures for the safe and economical use of vehicles and guidelines for vehicle replacement.

Related key areas for action include:

- Development of an efficient fleet management system;
- Development of a replacement plan for non-conforming ambulances, utility vehicles, motorcycles and bicycles;
- Development of a vehicle maintenance schedule and procurement of maintenance services;
- Development of a preventive maintenance plan for vehicles;

- Allocation of adequate funds for the acquisition and maintenance of motor vehicles and ambulances.

4.8 Health information monitoring and evaluation

4.8.1 Overview

The health information system in Kenya comprises five interlinked areas – information generation, validation, analysis, dissemination and utilization – as shown in figure 4.3.

4.8.2 Key outputs and actions

In terms of health information monitoring and evaluation, the Strategic Plan focuses on the following areas, on the basis of the system depicted in figure 4.3:

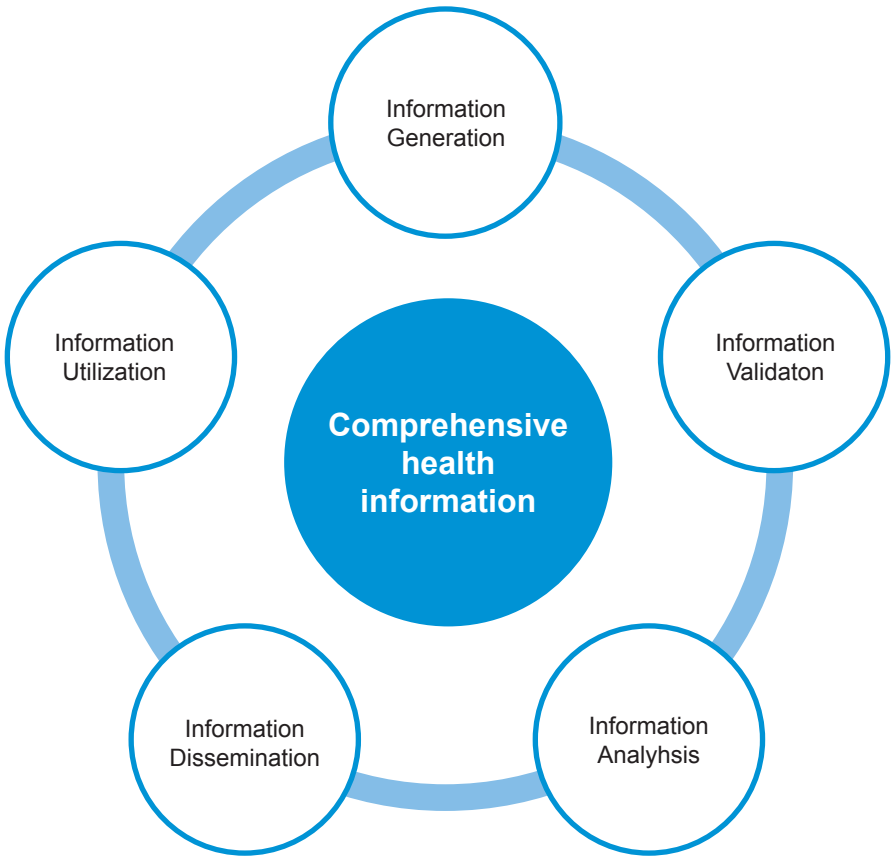
1. Strengthening the timely generation and use of integrated, comprehensive and good-quality health information.
2. Strengthening the system of health information validation.
3. Enhancing analysis capacity at all levels for improved decision-making.
4. Strengthening systems for the predictable and targeted dissemination of information to all stakeholders.
5. Improving the use of health information to guide policies, planning and programme management.
6. Improving governance of health information systems.
7. Managing the development of key health information systems.

Focus areas with their associated actions

Focus area 1: Strengthening the timely generation and use of integrated, comprehensive and good-quality health information

Standard tools and guidelines for data collection and reporting have been developed, but many have yet to be internalized and made readily available. Periodic review and revision of data-collection tools and the printing and

Figure 4.3 Kenyan health information system



distribution of data-collection guidelines will accompany the continued process of digitalization. This will see most facilities at level 4 and above fully digitalized by the end of implementation of the Strategic Plan.

Health service providers are increasingly investing in electronic systems for health records. Several systems are being used, but most are not linked to the national health information systems in order to share the data. This highlights the need for increased focus on system interoperability in order to channel information from all the fragmented data sources into the national system.

The robustness of population-based indicators has been challenged by imprecise and differing population estimates. The DHIS2 population-based indicators will therefore be based on population figures from Kenya National Bureau of Statistics. The sector also benefits from regular population surveys, notably the Kenya Demographic and Health Survey. The timing of surveys, however, is not well coordinated with sector requirements and does not include information on emerging sector priorities like health risk behaviour and non-communicable conditions. During implementation of the Strategic Plan, the Ministry of Health will attempt to coordinate population surveys more appropriately and advocate the inclusion of a minimum set of health risk behaviour indicators, such as BMI, alcohol intake and smoking habits.

Despite its importance, collection of vital statistics is erratic and not harmonized or coordinated, and there is no unique national personal identifier. The Ministry of Health will collaborate with the Department of Civil Registration to develop a joint plan to introduce a unique personal identifier and scale up the registration and reporting of vital events to generate statistics. They will also develop a strategy for digitizing registration. The Ministry of Health will also seek to improve medical certification of causes of death, coding and reporting of vital events, the functionality of the DHIS2 tool, the functionality of the Kenya Master Health Facility List and Kenya Master Community Health Unit List applications, and the use of electronic health record systems.

Quality data is essential for decision-making by all stakeholders in the sector. Structures have been established for regular data-quality-assurance interventions at the national level, and Ministry of Health programmes carry out their own specific data-quality assurance. The 2014 Health Sector Data Quality-Assurance Protocol will be revised and updated, and the Ministry will engage with the counties to ensure regular data-quality assurance at all levels.

Related key areas for action include:

- Strengthening, at all levels, of the capacity of human resources to use health information systems (e.g., the DHIS2 tool, the Kenya Master Health Facilities List application, electronic health records, the Kenya Health and Research Observatory portal) to ensure complete, timely and accurate information;
- Institutionalization of guidelines and standards relating to the interoperability of health information systems;
- Provision of adequate data-collection tools at service delivery points;
- Greater investment in ICT infrastructure and e-health development;
- Adherence to the structure for the biennial review of data-collection tools in the Health Information System Policy 2014–2030;
- Design, development and procurement of comprehensive data-collection tools in line with emerging data requirements under the Strategic Plan, including in relation to UHC;
- Harmonization of the population estimates used in the health sector;
- Development of a coordinated plan for implementing health-related surveys, focusing on timing and the inclusion of cross-cutting indicators, for example;

- Establishment and scaling up of a digital, multisectoral system for collecting information on vital events, in collaboration with the Department for Civil Registration;
- Establishment of a unique health identifier to facilitate management of health information;
- Revision and dissemination of the Health Sector Data Quality-Assurance Protocol (including in relation to digital systems and feedback mechanisms);
- Conduct of regular data cleaning;
- Development of a capacity-building strategy in relation to health information.

Focus area 2: Strengthening the system of health information validation

Strategic decisions should be made on the basis of health information that reflects the reality in the sector. It is therefore important to minimize errors in the process of collection, collation and reporting of health information by thorough validation.

Data-validation mechanisms integrated in the DHIS2 tool and health information systems will be strengthened and rolled out. Moreover, data validation will receive increased attention during regular data- and performance-review meetings at all levels.

Related key areas for action include:

- Establishment and implementation of a comprehensive health information validation mechanism/framework (paper and digital), including periodic national data quality audits and quarterly and biannual review meetings;
- Institutionalization and financing of the implementation of performance measurement and review guidelines at all levels;
- Advocacy in relation to better coordination of health sector activities and harmonization of data-quality-assurance mechanisms.

Focus area 3: Enhancing analysis capacity at all levels for improved decision-making

A lot of data are collected in the health sector, but there is insufficient analysis thereof owing to inadequate capacity for analysis among human resources at all levels and limited overall institutional capacity. In addition, the conduct of performance review meetings is not regular and DHIS2 analysis functions are not used optimally. The scope of analysis in the DHIS2 tool is limited and there is a need to integrate reporting systems to reduce the need for parallel reporting by programmes.

Related key areas for action include:

- Strengthening of institutional capacity for comprehensive analysis through the development and implementation of a competency-based capacity-building plan;
- Procurement of analytical tools and infrastructure;
- Development and implementation of a data analysis framework for integrated performance management and accountability in health;
- Joint development by the Ministry of Health and the counties of standard data-analysis guidelines;
- Conduct of systematic reviews and evaluations on priority health topics;
- Provision of training to ensure optimal use of the DHIS2 tool;
- Conduct of advanced analysis using DHIS2 data.

Focus area 4: Strengthening systems for the predictable and targeted dissemination of information to all stakeholders

An appropriate feedback system motivates stakeholders to improve their performance. The Strategic Plan emphasizes the need for regular performance review meetings at all levels, as they provide a good platform for feedback.

Currently, public access to detailed and up-to-date health information is limited. With

the establishment of the Kenya Health and Research Observatory, which will pull together information from all relevant health information-sources, the Ministry of Health endeavours to make curated health information available to the public.

Related key areas for action include:

- Identification of target audiences for health information products and documentation of their needs;
- Establishment of a system and plan for regular/periodic and targeted production and dissemination of health information products;
- Development of health information products for targeted audiences (e.g.,, dashboards and quarterly bulletins for monitoring the achievement of UHC and the Sustainable Development Goals);
- Publication of annual county and national statistical abstracts on health;
- Conduct of periodic health-information dissemination forums (quarterly, biannual, annual review meetings/ forums);
- Development of the Kenya Health and Research Observatory to ensure the availability of comprehensive health information;
- Establishment of a public portal allowing access to health information.

Focus area 5: Improving the use of health information to guide policies, planning and programme management

Technically sound decisions require up-to-date information on sector performance and challenges. Health information systems can provide this.

While the Strategic Plan includes investment in the strengthening the health information systems, it also places emphasis on the better use of the information generated for decision-making. The Ministry of Health has already developed guidelines on the use of evidence in policymaking, but these guidelines will be revisited.

The health-information-system monitoring and evaluation team of the Ministry of Health plays an important role in monitoring and evaluating the implementation of policies and strategic initiatives.

Related key areas for action include:

- Review and implementation of the Guidelines for Evidence Use in Policymaking (Ministry of Health, 2016h);
- Involvement of monitoring and evaluation teams in the development of policies;
- Development of a framework to monitor and evaluate the implementation of policies, and compilation of an inventory of relevant guidelines and policies to be monitored;
- Implementation of best practices and lessons learned in data analysis and use;
- Institutionalization of performance measurement and review guidelines at all levels;
- Conduct of quarterly, biannual and annual reviews;
- Conduct of an annual monitoring and evaluation conference on best practices;
- Institutionalization of learning and adaptation practices, including intercounty learning;
- Tracking of implementation of the recommendations from key health forums for improved governance and leadership (e.g., the Kenya Health Forum, the annual devolution conference and county stakeholder meetings);
- Advocacy efforts to have data use introduced as a standing item on agenda of periodic meetings at all levels;
- Development of user-friendly dashboards, including mobile-based dashboards, of high-level health indicators.

Focus area 6: Improving governance of health information systems

There are multiple stakeholders generating and using health data. Over time, several parallel reporting mechanisms have been developed, resulting in a fragmented health-information landscape. With the introduction of the DHIS2 tool and other national health information systems, a lot of effort has gone into reducing parallel reporting.

Related key areas for action include:

- Revision, in line with the Health Act 2017, launch and monitoring of implementation of the Health Information System Policy 2014–2030;
- Development of a health information system legal framework aligned with the Health Information Policy;
- Strengthening of legal and regulatory systems to support health-information-system monitoring and evaluation functions;
- Review and implementation of the Kenya Health Enterprise Architecture, linking all health systems countrywide;
- Development of a minimum data set for reporting at all health institutions;
- Development of a framework for the management and storage of health data, including personal identifiable information (government health facilities will require an executive order to facilitate the introduction of one standardized electronic health record system to handle personal information with clear mechanisms of interoperability);
- Strengthening of coordination and organizational structures at all levels in relation to health-information-system monitoring and evaluation (e.g., technical working groups and coordinating committees);
- Development of guidelines on information generation, use and its sharing with targeted audiences;
- Development of the capacity of counties to take on more responsibility with regard to health-information-system monitoring and evaluation and to institutionalize those functions;
- Leverage of public–private partnerships to mobilize resources for the implementation of health information systems;
- Development of an investment case for the health-information-system monitoring and evaluation;
- Development of a policy regarding the mandatory allocation of financing to the strengthening of health-information-system monitoring and evaluation.

Focus area 7: Managing the development of key health information systems.

There are many separate health information systems at the various levels (subcounty, county and national, but also sometimes in the same facility) that are unable to communicate with one another. This has resulted in loss of information. The Ministry of Health has developed a certification framework that aims to ensure the uniformity of system mechanics and timely upgrades.

Related key areas for action include:

- Strengthening of health information systems and the integration of parallel systems into one national reporting system through implementation of the revised Kenya Health Enterprise Architecture, including the upgrade, update or development of health subsystems as technology evolves;
- Collaboration between the health sector and the Ministry of Information, Communications and Technology to develop standardized health management systems in the country, including the promotion of the use of appropriate technologies to enable national and devolved systems to share and use information efficiently and effectively;

- Establishment of a Kenya Health Information Exchange platform and development of guidelines to address issues of interoperability and information exchange;
- Advocacy in relation to the allocation of adequate funding for the national health information system in the national budget;
- Conduct of an assessment of the use of the various health information systems;
- Promotion of the use of under-utilized health information systems (e.g., the Community Health Information System, the iHRIS Manage tool and electronic health records).

4.9 Health research and development

4.9.1 Overview

The Midterm Review of the Kenya Health Sector Strategic and Investment Plan 2014–2018 identified challenges relating to the prioritization, coordination and financing of research. The Strategic Plan aims to address those issues. It is envisaged that by the end of the implementation period, the Ministry of Health will be able to achieve structured coordination of research and translation of the findings into policy and products.

4.9.2 Key outputs and actions

In terms of health research and development, the Strategic Plan focuses on the following areas:

1. Developing an integrated research plan and capacity-building initiative at the national and county levels.
2. Enhancing investment in research and evidence generation for effective policy and programme development.
3. Strengthening research links with academic institutions.

Focus areas with their associated actions

Focus area 1: Developing an integrated research plan and capacity-building initiative at the national and county levels.

Related key areas for action include:

- Establishment of a national health research committee;
- Development of a policy on health research;
- Development of a legislative bill on research for health;
- Establishment of a robust health research coordination framework;
- Development of a policy on health research data and guidelines for its implementation.

Focus area 2: Enhancing investment in research and evidence generation for effective policy and programme development

Related key areas for action include:

- Strengthening of strategic partnerships and networks to support the national research agenda;
- Establishment of bilateral mechanisms to address cross-border health research needs;
- Creation of a portal for the sharing of the results of health research;
- Mapping of health innovations and research products;
- Establishment of a structured mechanism to synthesize and communicate research findings thereby facilitating policy formulation and implementation;
- Ring-fencing of funds for health research;
- Advocacy with a view to obtaining, for health research, an allocation of 30 per cent from the National Research Fund;
- Establishment of a resource mobilization committee to explore innovate ways of financing health research.

Focus area 3: Strengthening research links with academic institutions

Related key areas for action include:

- Creation of opportunities to engage students in research in collaboration with counties, facilities and communities;
- Improvement of terms and conditions of service for specialized health research professionals;
- Establishment of a programme to ensure the continuous recruitment and advanced training of specialized health research staff;
- Establishment of a research-related equipment-sharing mechanism across institutions.

Chapter Five: Resource Requirements

5.1 Introduction

A good health system raises adequate resources for service delivery, ensures efficient management of resources and provides financial protection for the poor against catastrophic situations. By understanding how the health systems and services are financed, it is possible to direct programmes and resources more effectively to complement the health financing already in place, advocate greater financing for health priorities and help populations gain access to available health services.

This chapter describes in detail the resources required for implementation of the Strategic Plan, those available, those anticipated and the corresponding gaps. This information should assist stakeholders in developing realistic annual health budgets and ensuring that annual operating plans are designed and implemented in a more effective way.

5.2 Resource requirements for implementation of the Kenya Health Sector Strategic Plan 2018–2023

Accurate information on the cost of providing health-care services is becoming increasingly important, especially given the Constitution, in which health care is a right of all Kenyans. This section gives estimates of the cost of providing the health-care services foreseen in the Strategic Plan, by programme and investment area and by the building blocks of the health system. The costs are based on data derived from programmes, published documents on unit costs and interviews with key experts in related fields. The data were processed using the One Health model to generate the overall cost estimates.

5.2.1 Costing methodology

Costing is the process of calculating the cost of the inputs required to achieve set goals relating to each intervention and service. It also attempts to identify what causes costs to change (cost drivers). All activity costs are traced and attributed to the intervention or service to which the activities relate.

As was mentioned, the Strategic Plan was costed using the One Health model. The One Health model is a tool for medium- to long-term (3–10 years) strategic planning in the health sector at the national level. It computes the cost implications of achieving the targets set under programmes relating to specific diseases and those relating to elements of the overall health system. The One Health model is a unified tool that enables joint planning, costing, budgeting and financial space analysis and combines disease-related programmes and system-related interventions, thereby providing health sector planners with a single framework. The tool helps to inform progress towards achieving the Sustainable Development Goals by enabling the assessment of costs related to the following areas: maternal, newborn and reproductive health; child health; immunization; malaria; TB; HIV/AIDS; nutrition; and water sanitation and hygiene. It contains modules relating to human resources, infrastructure, logistics, financial space, programme and channel analysis, intervention coverage and costing, bottleneck analysis, programme costing, summary outputs and budgeting. The One Health model has leveraged the best components of the various costing tools that came before it and has been designed in a modular fashion to allow for programme-specific costing and sector-wide costing, as was done in the present case.

5.2.2 Summary of cost estimates for implementation of the Kenya Health Sector Strategic Plan 2018–2023

The One Health model was adjusted to provide cost estimates by objective and orientation of the Strategic Plan. Table 5.1 gives a summary of the costs estimates by intervention (programme-related and system-related). According to the costing, KSh 2,660 billion are required to finance the health sector over the period covered by the Strategic Plan.

5.2.3 Cost estimates for implementation of the Kenya Health Sector Strategic Plan 2018–2023 by health programme and health-system investment area

The cost of implementing each health-programme area of the Strategic Plan, along with the cost related to each health-system investment area, was generated as shown in table 5.2.

Table 5.1: Estimated total cost of implementing the Kenya Health Sector Strategic Plan 2018–2023

	Cost (KSh million)					
Costing area	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Health-programme costs	265,249	302,089	342,470	384,805	431,216	**1,725,829**
Health-system costs	181,028	192,911	180,020	189,678	190,903	**934,541**
Total	**446,277**	**495,000**	**522,490**	**574,483**	**622,118**	**2,660,369**

Source: One Health Model

Table 5.2: Estimated total cost of the Kenya Health Sector Strategic Plan 2018–2023, by health programme and health-system investment area

	Cost (KSh million)					
Costing area	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Health programme						
Maternal, newborn and reproductive health	25,789	27,941	30,189	32,698	35,472	**152,088**
Child health	11,972	13,095	13,699	15,043	16,533	**70,342**
Immunization	10,932	11,560	13,444	13,188	14,088	**63,212**
Malaria	45,818	49,958	54,813	60,480	66,428	**277,495**
TB	25,348	30,891	36,805	42,739	48,844	**184,626**
HIV/AIDS	84,015	92,095	100,898	110,674	121,335	**509,017**
Nutrition	8,187	8,682	9,180	9,676	10,078	**45,802**
Water, sanitation and hygiene	16,221	17,841	19,479	21,335	23,388	**98,265**
Non-communicable conditions	32,237	45,093	58,895	73,721	89,609	**299,555**
Mental, neurological, and substance-use disorders	1,321	1,443	1,568	1,713	1,865	**7,910**
Adolescent health	3,242	3,319	3,329	3,359	3,397	**16,645**
Neglected tropical diseases	166	173	173	179	180	**871**
Subtotal health-programme costs	265,249	302,089	342,470	384,805	431,216	**1,725,829**
Health-system investment area						
Human resources	68,503	73,784	79,301	85,153	91,364	**398,104**
Infrastructure	67,339	69,395	46,293	46,118	52,012	**281,157**
Logistics	3,622	3,884	4,355	5,372	5,663	**22,897**
Health products and technologies	7,963	10,531	14,084	14,998	12,030	**59,605**
Financing	18,337	20,107	21,339	21,621	23,094	**104,500**
Information systems	11,974	11,706	11,041	12,630	2,952	**50,302**
Leadership and governance	3,290	3,504	3,608	3,787	3,787	**17,975**
Subtotal health-system investment costs	181,028	192,911	180,020	189,678	190,903	**934,541**
Grand total	**446,277**	**495,000**	**522,490**	**574,483**	**622,118**	**2,660,369**

Source: One Health Model

5.3 Available resources

5.3.1 Introduction

A combination of secondary data sources was used to ascertain the financial resources available for implementation of the Strategic Plan. The shadow budget provided comprehensive information on donor resources available for the first two years and an extrapolation was done for the remaining three years of the Plan. Government financial commitments were obtained from the Medium-Term Expenditure Framework for the period 2018/19–2021/22 (Ministry of Health, 2019d) to establish available funding for the first three years. The probable levels of funding for the remaining two years of the Plan were estimated on the basis of the growth over the previous two years.

The reports of the Kenya National Health Accounts report for the financial year 2015/16 and the 2018 Kenya Household Health Expenditure and Utilization Survey provided expenditure estimates for households and private firms. These were adjusted for inflation and population growth to provide estimates for the period of the Strategic Plan.

The Government is committed to increasing the share of the budget allocated to the health sector and this is borne out by budgetary increases. For planning purposes, assumptions have been made about future contributions of partners that were unable to provide information about their future funding commitments. The combination of government and donor funding estimates gives the total budget foreseen for each year of the Strategic Plan.

5.3.2 Available resources by year and by source

Overall, a total of KSh 1,988 billion is expected to be available to support implementation of the Kenya Health Sector Strategic Plan 2018–2023. The major financers of the Plan are expected to be the Government and households themselves, with contributions of 52 and 33 per cent, respectively. Table 5.3 shows the total resources available, by year and by source, to support implementation of the Strategic Plan.

Table 5.3: Estimated and projected financial resources available for implementation of the Kenya Health Sector Strategic Plan 2018–2023, by source

Source	Resources available (KSh million)						Percentage of total
	Year 1	Year 2	Year 3	Year 4	Year 5	Total	
Government	205,007	202,687	207,045	211,042	215,262	1,041,043	52
Donors/ partners	98,562	42,705	34,722	9,847	1,838	187,674	9
Households	118,169	124,078	130,282	136,796	143,636	652,961	33
Private firms	19,237	20,199	21,209	22,269	23,383	106,296	5
Total	**440,976**	**389,668**	**393,257**	**379,954**	**384,119**	**1,987,974**	**100**

Source: One Health Model

5.4 Financial gap analysis

The difference between the resource requirements and the resources projected to be available gives the shortfall in the funding required if the Strategic Plan is to be fully implemented. Identification of the funding gap provides an opportunity to show potential stakeholders where additional resources would be most useful.

Table 5.4 summarizes the costs and available resources as per the previous sections to provide an estimate of the funding gap by year.

The draft Kenya Health Financing Strategy 2016–2030 elaborates the approach that the health sector is taking to reduce this funding gap.

Table 5.4: Estimated financial gap in relation to implementation of the Kenya Health Sector Strategic Plan 2018–2023

	(KSh million)					
Resources	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Total**
Available resources	440,976	389,668	393,257	379,954	384,119	1,987,974
Required resources	446,277	495,000	522,490	574,483	622,118	2,660,369
Financial gap	-5,301	-105,332	-129,233	-194,529	-237,999	-672,395

Chapter Six: Implementation Arrangements

6.1 Introduction

This section describes the various actors in the health sector and their roles, partnership arrangements, planning and budgeting processes and communication strategies under the constitutional dispensation of devolved governance. The Ministry of Health will take the lead role in the implementation of the strategic plan, in collaboration with all stakeholders at the national and county levels.

6.2 Stakeholders

6.2.1 Health-sector stakeholders

The various stakeholders in the health sector are:

a. Clients (individuals, households and communities);

b. State actors (national and county governments, including in other sectors that relate to health);

c. Non-state actors (implementing partners, the private sector, civil society and faith-based and non-governmental organizations);

d. External actors (development partners).

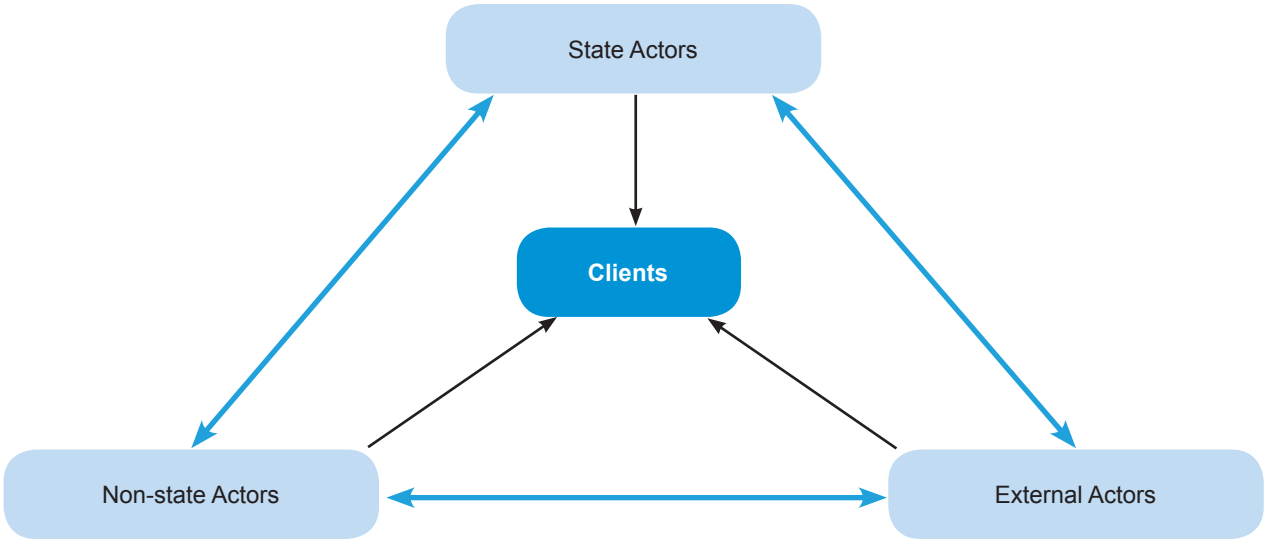
Figure 6.1 shows the interplay among these stakeholders.

6.2.2 Stakeholder roles

A multisectoral approach to implementation of the Strategic Plan will be adopted, which will involve the various aforementioned stakeholders.

- **Clients:** The Strategic Plan recognizes the role that individuals, households and communities play and considers the adoption of appropriate health practices and health-seeking behaviour as key to realization of the country's health goals. The sector has put in place strategies to ensure that households are

Figure 6.1: Interplay among health-sector stakeholders



Source: Ministry of Health (Draft Kenya Health Sector Partnership and Coordination Framework 2018 - 2030).

empowered to take responsibility for their own health and the well-being of their communities. These are expected to contribute to the achievement of PHC, community and family health goals through various formal and informal community and home-based interventions.

- **State actors:** The main role of the state actors (at both the national and county levels) is to provide stewardship in the health sector. The role of the national Government is to formulate policies, develop national strategic plans, develop standards and guidelines, provide technical support to the counties and build their capacity and, national health referral services. The functions of county governments involve main the provision of services. Improvement of the overall health status and well-being of the population depends on the various sectors in the economy functioning in synergy.
- **Non-State actors:**
- **Implementing partners:** Traditionally, implementing partners have played a significant role in ensuring that health services are available to the community, especially in hard-to-reach areas. They have also been a critical source of much-needed human and monetary resources for implementation of the strategic plans.
- **Private sector (for profit and not for profit):** The private sector, at both the national and county levels, has a lot of resources at its disposal that could provide significant support to the health sector in expanding good-quality care to remote and underserved populations. Even within public-service providers, the private sector has a role to play in providing non-health services (e.g., laundry, food provision and laboratory services). County stakeholder forums are the platforms for promotion of such collaboration. Traditional health practitioners also provide complementary services.
- **External actors:** External actors are a rather heterogeneous group with a variety of objectives, technical and reporting requirements and funding modalities. The Strategic Plan recognizes that health services require significant financial and technical investment in a context of limited domestic resources. Donors and international non-governmental organizations have traditionally played a key role in providing resources for the health sector. International initiatives, particularly the High-level Forums on Aid Effectiveness, provide an important foundation for guidance from external actors. The principles of the 2005 Paris Declaration on Aid Effectiveness (Organization for Economic Cooperation and Development, 2005) are: country ownership, alignment, harmonization, managing for results and mutual accountability. Implementation of the Strategic Plan will require the continued support of development partners in the field of health, especially given the devolved system of government.

6.3 Partnership arrangements

6.3.1 Introduction

The concerted efforts of all health stakeholders are required for implementation of this plan. Those efforts will be guided by the Kenya Health Sector Partnership and Coordination Framework 2018–2030. The partnership arrangements aim to enhance aid effectiveness through use of the sector-wide approach to health service delivery. With numerous and various types of partners supporting the health sector in Kenya at different levels and in different capacities, coordination and harmonization of the investments and actions of all partners is critical for ensuring that optimal use is made of all available resources to address sector priorities and achieve results.

The Kenya Health Sector Partnership and Coordination Framework 2018–2030 outlines structures and mechanisms that bring together all key partners at different levels to collaborate

in improving the health of the population. It sets out the partnership structures, roles and responsibilities relating to the different actors at the different levels of government and what is expected from the partners. There has been a shift in focus from the effectiveness of aid alone to the effectiveness also of development support.

Effective partnerships, collaboration and collective engagement will:

- Allow for coordination and harmonization of investments and actions to eliminate duplication of efforts and identify critical gaps that need to be addressed;
- Reduce transaction costs for the Government and partners;
- Enhance the efficiency of support to the health sector;
- Promote and facilitate mutual accountability for results.

The principles of the sector-wide approach reflect those set out in the 2005 Paris Declaration on Aid Effectiveness. In such an approach the sector uses:

- One planning framework;
- One budgeting framework;
- One monitoring and evaluation framework.

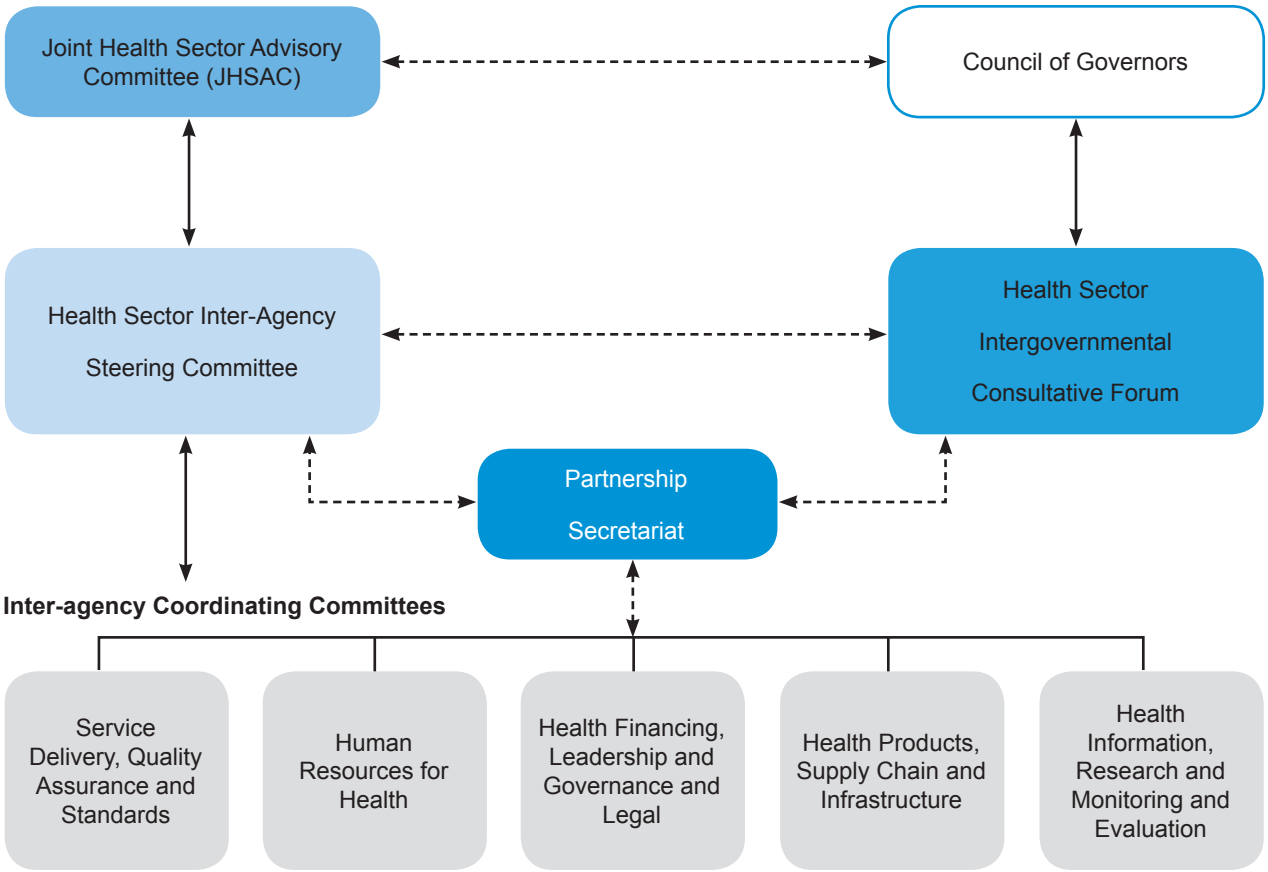
All the actors in the Kenyan health sector will be expected to work on this basis.

6.3.2 Health-sector partnership structures

Figure 6.2 outlines the framework for partnership and coordination with the health sector.

The terms of reference, membership and functions for each structure are detailed in the Kenya Health Sector Partnership and Coordination Framework 2018–2030, along with structures established to promote coordination and monitor adherence to their commitments.

Figure 6.2: Kenya Health Sector Partnership and Coordination Framework 2018–2030



Source: Ministry of Health (2018j)

6.3.3 Partnership and coordination priorities

To improve the overall partnership and coordination efforts, priority will be given to the following issues:

- **Improved adherence to agreed coordination structures.** Clear guidelines need to be developed on how these structures will function, with an agreed agenda and agreed calendar of events.
- **Improved harmonization of stakeholder efforts.** Harmonization of government efforts at the national and county levels is ongoing in the context of the Intergovernmental Relations Act 2012 (National Council for Law Reporting, 2012e). Agreed coordination structures will be empowered to serve as forums for harmonizing support from the Ministry of Health and donors. Principles will have to be agreed on, with clear indicators and related monitoring mechanisms.
- **Establishment of a capacity-building process for partnerships.** It is critical to ensure that there is common understanding of agreed partnership mechanisms among all stakeholders in the health sector. Awareness should be raised among staff at all levels.
- **Establishment of a fully functional partnership secretariat.** The Ministry of Health will ensure that a secretariat is established and given support. Its functions will be as follows:
  - It will act as the sole repository of all information relating to partnerships in the sector (e.g., donor agreements, sector documents).
  - It will coordinate the development of agreed partnership documents such as joint plans and reports.
  - It will monitor adherence to agreed partnership principles.
  - It will provide scheduling and administrative support for coordination meetings.

6.4 Planning and budgeting

6.4.1 Common planning framework

The common planning framework for the health sector is set by:

a. **The Kenya Health Policy 2014–2030,** which describes the long-term intention for health care;

b. **The Kenya Health Sector Strategic and Investment Plans,** which define the medium-term strategic focus and objectives, desired outputs and investment targets for the sector. They provide overall health guidance for development of **ministry and county strategic plans,** which define specific national and county health priorities and inform **budgeting processes** at the national and county levels. The programmatic plans of external and non-State actors that are aligned with the strategic and investment plans should be reflected in national and county medium-term plans;

c. **Annual work plans,** which outline the targets and activities of the sector at the national and county levels on the basis of available budgets. The activities and investments of external and non-State actors should be reflected in national and county annual work plans and budgets;

d. **County integrated development plans,** which define county-specific development priorities and focus over a specific period and must always align with national plans;

e. **National programme plans,** which are expected to align their priorities and investments with the requirements of the Kenya Health Policy and the Kenya Health Sector Strategic and Investment Plans.

6.4.2 Common budgeting framework

A common budgeting framework, which includes not only the public resource envelope, but all of the sector's resources from State, non-

State and external actors, guides the sector in prioritizing use of the available resources. This improves transparency in financing, reduces duplication of funding and ensures that all priorities receive funding from the available resources.

The budget lines in the framework are aligned with programmes and key investment areas. The management teams will need to determine the overall priorities across these areas.

All partners are expected to use the common budgeting framework when providing information on their planned support during a defined period. The framework allows health actors to specify, by priority area, the resources that they are making available for implementation. When the focus of partner resources is unspecified, this too can be captured.

6.5 Communication

In line with article 35 of the Constitution 2010, all citizens have a right to information held by the State. In addition, under the provisions of part IX, articles 93–95 on communication, of the County Governments Act 2012 (National Council for Law Reporting, 2012f), county governments shall establish mechanisms to facilitate public communication and access to information in the form of media with the widest public outreach in the county.

The timely and accurate communication of carefully chosen messages to specific individuals and groups, through appropriate and effective channels, is an enabling factor of any change process. This section provides guidance on developing a communication strategy for the Strategic Plan. The main purpose of such a communication strategy is to foster greater support and buy-in among key stakeholders, including the public.

The communication strategy will focus on:

a. Ensuring that all stakeholders understand the Kenya Health Sector Strategic Plan 2018–2023 and ongoing health reform process;

b. Ensuring that all stakeholders are fully informed of and understand their roles and responsibilities in implementation of the Strategic Plan;

c. Enhancing consultation of agencies in achieving set outcomes.

The main focus of communication, by stakeholder, is outlined in table 6.1.

A detailed communications plan with intended actions, their timing and assigned responsibility should be completed on the basis of a stakeholder assessment and take into account stakeholders' perceptions and needs and the internal and external environment in which the strategic plan is to be implemented.

The communication plan should identify:

a. The key messages for key stakeholders;

b. The methods by which those key messages are to be communicated to key stakeholders;

c. The actions required for implementation of the strategy and fulfilment of related communication roles;

d. The resources needed to be able undertake the communication tasks;

e. Communication risks;

f. The methodology and time frame for evaluating the effectiveness of the communication activity.

Table 6.1: Focus of communication efforts, by stakeholder

Stakeholder		Communication focus
Clients	Individuals	• Their role in adopting appropriate healthy and health-seeking behaviour • Their active participation in the management of local health services • Their ownership of and commitment to good health through implementation of the strategic plan
	Households	
	Communities	
State actors	National and county governments	• Their leadership and stewardship role within the sector, across other sectors and among partners • Their role in contributing to national health outcomes and the need to strengthen intersectoral work and mechanisms
	Semi-autonomous government agencies	• Their role in providing specialized health services
	Ministry responsible for devolution	• Its role in ensuring that quality health care services are provided at all levels, including in urban areas
	Regulatory bodies and professional bodies/associations with a health-related mandate drawn the State	• Their regulatory function in implementation of the strategic plan
Non-State/ external actors		• Their adherence to the Kenya health sector wide approach: Code of Conduct (Ministry of Health, 2007) incorporating • Their adherence to the common management arrangements • Their adherence to the quality standards • The need to ensure harmonized collaboration

6.6 Implementation risks and their mitigation

The strategies outlined in the Strategic Plan are prone to influence from external factors that are not necessarily related to the health sector. It is therefore crucial that a deliberate effort be made to predict these and identify mitigation measures early enough to ensure that implementation continues smoothly. Adoption of a "Health in All Policies" approach, whereby the health sector involves all other relevant ministries and stakeholders in the achievement of its goals, is therefore important to ensure that there is continuous support when mitigation measures are required.

The identified risks and related mitigation measures are summarized in table 6.2.

Table 6.2: Implementation risks and their mitigation

Type of Risk	Specific Nature	Mitigation
Political	The country currently has a strong political commitment to delivering good-quality health care services to its citizens. This is reflected in the Constitution 2010 and the drive to achieve UHC under the "Big Four" agenda and the Kenya Vision 2030, thereby fostering an enabling environment for implementation of health-related policies and receipt of funding. Internal and external political and economic enthusiasm may, however, be affected by a change in country's leadership and the waning of buy-in/commitment from county leaders.	• Introduce legislation to ensure that UHC is enshrined in the law at both the national and county levels • Continuously involve the county leadership in decision-making and implementation of strategies aimed at achieving UHC
Economic	The strategies to be implemented under the Strategic Plan require sufficient and sustainable financial and human resources. Investment in the health sector, however, is not currently commensurate with economic growth. This may be attributed to the prioritization of investment in other sectors and leads to uneven investment in the sector itself owing to limited resources.	• Emphasize performance and social accountability, with a focus on prioritization of and efficiency in implementation of the strategies outlined in the Plan • Conduct annual reviews of the funding gap to track progress and inform resource mobilization strategies • Develop and introduce resource mapping and tracking at the national and county levels • Advocate the allocation of greater resources at the county level
	There is a risk that the number of health personnel will prove inadequate for achievement of targets and that as a result tasks will be shifted to less qualified personnel.	• Enhance performance management systems especially at the subnational level • Employ and deploy adequate numbers of health-care personnel across all levels of responsibility • Implement the strategy for enhancing community access to health care to improve their general health and reduce patient numbers at higher-level facilities

Type of Risk	Specific Nature	Mitigation
Social	The Plan emphasizes a people-centred approach to health care. Lack of community involvement may lead to implementation of strategies that do not respond fully to the community's needs.	• Improve managerial processes at the county and sub county levels to ensure community involvement in implementation of the strategy • Promote social accountability at all levels with the aim of increasing demand for health-care services • Introduce/enhance peer-to-peer approaches at the community level
	Situations of instability, such as ethnic clashes, lead to violence and injuries, but also to displacement, which means that people are not in a position to access health care services as they would in normal circumstances.	• Through the emergency preparedness and response measures and strategic repositioning, ensure that there are adequate supplies, commodities and equipment to cater for displaced populations and large numbers of casualties and ensure the continuity of service provision
	Unhealthy lifestyles are reported to have led to an increase in non-communicable conditions in the country. This trend is unfortunately increasing further, causing morbidity and mortality in an otherwise health population.	• Implement the strategy relating to non-communicable conditions at all levels
Technological	The delivery and management of services may be affected by poor network coverage in some areas, lack of use of the e-health system and weak ICT infrastructure. The country has not adopted a uniform electronic health record system or a telemedicine system to facilitate real-time data and remote patient management. This can also affect patient referrals.	• Connect health facilities with fibre optic technology • Provide adequate infrastructure for ICT e.g., computers, telephones, mobile-health technology • Conduct training in the use of ICT and in preventive maintenance • Design a standardized electronic health record system for adoption by and use in all public health facilities for real-time data and information exchange
Environmental	The country has recently experienced epidemics such as cholera, chikungunya and polio. This results in the reallocation of funds to curb the outbreaks when they occur. Deforestation contributes to climate change and increased drought, which affects access to safe water and causes disease outbreaks.	• Set aside adequate resources for emergency preparedness and response • Institutionalize campaigns by individuals and organizations to plant trees
Legal	There remains the risk of poor implementation of health sector reforms and the use of resources allocated to health care for other purposes.	• Enhance implementation of the health sector reforms through consultation and the reinforcement of mutual accountability • Amend the Public Finance Management Act 2012 to allow ring-fencing of the resources allocated to health

Chapter Seven: Monitoring and Evaluation

7.1 Introduction

The monitoring and evaluation function of this Strategic Plan will assist in assessing the progress, performance and impact of the strategy. This will be done by determining if the priority health actions outlined are implemented as intended to achieve the stated objectives and desired results. The evidence gathered on progress or lack thereof will guide decision-making in the sector.

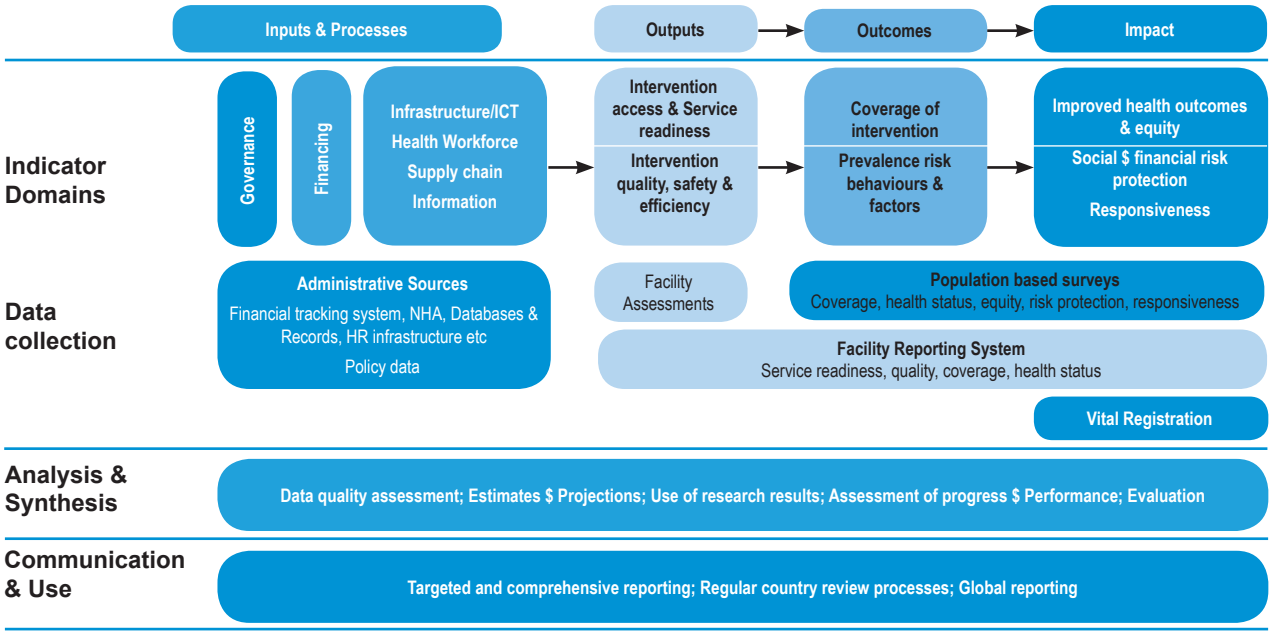
Monitoring and evaluation of the Strategic Plan will be guided by the Health Sector Monitoring and Evaluation Plan 2018-2023 (Ministry of Health, 2018h), which is also aligned to the National Integrated Monitoring and Evaluation System. The M&E Plan outlines the M&E system that will support tracking of implementation of this strategy. The plan outlines the following key elements of the M&E system; Indicators, targets and data sources, Data collection methods, Roles and responsibilities, Organizational structures to support M&E, Partnership arrangements, Data analytics plans, Information dissemination and use and Data quality plans.

The monitoring and evaluation logical framework outlined below in figure 7.1 offers a conceptualization of the interplay between the strategy indicators from inputs to the overall impact, and the supporting M&E system.

7.2 Purpose

The purpose of the Monitoring mechanism is to facilitate systematic tracking of progress against interventions outlined in this strategy. This will facilitate implementers and decision makers to have information on how well the implemented strategies are working, and

Figure 7.1: Monitoring and evaluation logical framework



Source: HSS MandE framework, WHO

facilitate revision or scaling up efforts where progress is slow.

Evaluation of this strategy will facilitate consolidation of intelligence on how well implemented interventions have worked both at midterm and end term. This will inform (at midterm), any need to revise both targets and interventions where these may be found to be inappropriate. The end term evaluation will facilitate taking stock on the overall achievements of this strategy against its intended objectives, and inform planning for the consecutive strategic plan.

7.3 Indicators and Targets

The health sector has identified indicators for monitoring and evaluating implementation of this strategic plan. Several indicators serve more than one target and so appear several times under different headings in this document. The Health monitoring and evaluation plan defines the mechanisms that will be used to monitor progress continuously, as well as evaluate achievements at mid=term and end term of the strategic plan. The responsibilities of each actor and plans to enhance data use across various levels are also outlined in the M&E plan.

Comprehensive description of all indictors in the health sector including calculation methods and data sources are outlined in the third edition of the Health Sector Indicator Manual (Ministry of Health, 2017).

All indicators to be monitored and evaluated under this strategy, including their baselines and targets are outlined in annex (B) on Indicators and Targets of the Kenya Health Sector Strategic Plan 2018–2023 in this document. These are also elaborated in the Health Sector monitoring and evaluation plan (Ministry of Health, 2018h)

7.4 Monitoring mechanisms

The monitoring and evaluation units at the national and county levels will be responsible for the day-to-day conduct and coordination of monitoring of the Strategic Plan's implementation. This includes collecting, tracking and analysing data to determine what is happening, where, and to whom. The key elements to be monitored are: Resources (inputs); Service statistics; Service coverage/Outcomes; Client/Patient outcomes (behaviour change, morbidity); Investment outputs; Access to services; and impact assessment. The main components of monitoring will encompass data generation, validation, analysis and dissemination.

Monitoring will be done within the pre-determined periods and will include; Monthly, Quarterly and Annual review of routine indicators including Monthly multidisciplinary performance reviews at all levels. At the community level, quarterly community dialogue days and biannual community scorecard will be the main methods for monitoring.

The tools that will facilitate monitoring will include sector and thematic dashboards and scorecards, while outputs will also include Monthly, Quarterly and Annual reports at the various levels. The ultimate annual output will be an Annual State of Health in Kenya report, a comprehensive analytical report giving a snapshot of the overall state of health in Kenya and of the progress made in meeting strategic objectives in this plan.

Joint assessments will be used at all levels during periodic reviews to assess performance against targets, determine priorities, action plans and spending for the subsequent period. This will act a joint validation of results across stakeholders. A comprehensive feedback mechanism will ensure inclusiveness to enhance accountability.

The health forums at county and National levels will be the main platform in which results of performance evaluations are deliberated upon by all stakeholders, including agreement on priorities for the next implementation period. The monitoring process will therefore be a system for keeping track of status of implementation of the strategy, ensuring agreed follow-up actions are taken up and implemented.

7.5 Evaluation mechanisms

Evaluation of the strategy will be done at Mid term (FY 2020/21) and at end term FY (2022/23). The midterm review and an end evaluation will be used to determine the extent to which the objectives of this strategic plan have been met using the different indicator domains (inputs/ processes, outputs, outcomes and impact).

The midterm review will coincide with the annual review of the third year of the strategic plan while the end term evaluation will be undertaken upon completion of the term of the strategy.

Each of these evaluations will consist of several reviews comprising of; a statistical review of outcomes (service coverage, utilization, and access), an Impact Evaluation which will rely mostly on implemented household surveys, a Health Facility Assessment and a Customer Satisfaction Survey. A health system analysis will also be undertaken. At Mid term, reviews such as a biennial reviews, Mini surveys, assessments and evaluations may be used if no major surveys or assessments will have been implemented. While most of these surveys and assessments will be implemented at National level and powered to represent county levels, some assessments will also be done comprehensively at County level such as the County Health Accounts.

The Outputs expected from the evaluations will include; An Impact Evaluation Report, Health Facility Assessment Report, Customer Satisfaction Survey Report and other survey/ assessment specific reports. In addition, MTR and End term statistical reports and comprehensive MTR and End term reports will be produced as the overall outputs. Other sub outputs will include policy briefs and papers.

The results of the MTR will be used to adjust national strategies, priorities and objectives while those of the End term evaluation will form the baseline for the next strategic plan.

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Annexes

ANNEX A: Summary of the results of the health sector performance reviews 2014–2018

	Indicator	Baseline 2013/14	Midterm result 2015/16	End result 2017/18	Target 2018	Colour code for end result	Data source
IMPACT							
Improve health outcomes	Life expectancy at birth (in years)	60	63.4	63.4	65		Estimates of WHO for 2015/16 and 2017/18
	Maternal deaths per 100,000 live births	362	No data	257.6	150		Global Burden of Disease Study 2017[a]
	Facility-based maternal deaths per 100,000 live births	97.7	126.1	98	90		DHIS2
	Neonatal deaths per 1,000 live births	31	No data	20.3	15		Estimate of the United Nations Inter-Agency Group for Child Mortality 2018
	Facility-based newborn deaths per 1,000 live births	No baseline	11.7	10.1	0		DHIS2
	Under-5 mortality rate per 1,000 live births	74	52	44	35		KDHS 2014
	Infant mortality rate per 1,000 live births	No baseline	39	32.6	No target		KDHS 2014
HEALTH- AND RELATED-SERVICE OUTCOME TARGETS							
Eliminate communicable conditions							
	Percentage of fully immunized children (routine proxy)	79.4	77.9	74.3	90		DHIS2
	Percentage of the target population receiving mass drug administration for schistosomiasis	50 (2013)	-	106	100		DHIS2
	Percentage of TB patients completing treatment	83 (revised, Ministry of Health 2013)	85 (Ministry of Health 2014)	86	90		MOH TIBU
	Percentage of HIV-positive pregnant women receiving preventive antiretroviral therapy	72	94.1	94	90		DHIS2
	Percentage of eligible HIV-positive clients on antiretroviral therapy	41	68	75	90		
	Percentage of targeted children under 1 provided with long-lasting insecticide-treated nets	82 (revised, 2012/13)	52	75.6	75		Kenya National Malaria Control Programme
	Percentage of targeted pregnant women provided with long-lasting insecticide-treated nets	79.8 (revised)	94.4	89.5	80		Kenya National Malaria Control Programme
	Percentage of children under 5 treated for diarrhoea (values are the	21.6	20.6	58	39		DHIS2

	Indicator	Baseline 2013/14	Midterm result 2015/16	End result 2017/18	Target 2018	Colour code for end result	Data source
	percentage of children under 5 who received outpatient treatment for diarrhoea)						
Halt and reverse the rising burden of non-communicable conditions and mental disorders	Percentage of adult population with a body mass index (BMI) over 25	33 for women aged 15–49 (revised, KDHS 2014)	37 for women aged 15–69 and 18 for men aged 15–69 (STEPS 2015)	37 for women aged 15–69 and 18 for men aged 15–69 (STEPS 2015)	35		KDHS 2014 and STEPS 2015
	Number of women screened for cervical cancer per 1,000 Women of reproductive age.	1.9	1.0	7.6	7.5		DHIS2
	Number of mental health cases per 1,000 outpatient visits	1.7	1.3	1.8	2		DHIS2
	Percentage of new outpatient cases with high blood pressure	2.3	2.9	2.9	3		DHIS2
	Number of hypertension cases per 1,000 outpatient visits	11.6	11.3	18.5	20		DHIS2
	Number of diabetes cases per 1,000 outpatient visits	3.6	3.5	6.5	10		DHIS2
	Number of cases of sexual violence cases per 100,000 outpatient cases	58	36.7	43	30		DHIS2
	Road traffic injuries per 1,000 outpatient cases	19.4	11.7	3.3	3		
	Percentage of deaths due to injuries	10	4.3	4.1	3		
Provide essential health care	Percentage of deliveries in health facilities	58.1	62.1	60.1	65.0		DHIS2
	Percentage of women aged 15–49 using modern contraceptives	56.3	49.1	39.7	80.0		DHIS2
	Percentage of facility based maternal deaths	115.1	116.9	121.8	100.0		DHIS2
	Percentage of facility-based deaths of children under 5	60	No data	18.8	15		
	Percentage of newborns with low birth weight	4.9	4.9	5.1	6.0		DHIS2 routine data
	Facility-based fresh still births per 1,000 births	12.4	10.9	12.8	5.0		DHIS2 routine data
	Percentage of pregnant women that have four antenatal-care visits	38.3	41.8	39	80		DHIS2 routine data
Minimize exposure to health risk factors	Percentage of the population who smoke	17 for men 15–54 yrs (KDHS 2014)	20 for men aged 18–69 (STEPS 2015)	20 for men aged 18–69 (STEPS 2015	16		KDHS 2014/STEPS 2015
	Percentage of infants under 6 months exclusively breastfed	51.0	61.2	70.4	50		DHIS2
Strengthen collaboration with private and	Percentage of children under 5 attending child	1.2	2.5	2.5	1		DHIS2

	Indicator	Baseline 2013/14	Midterm result 2015/16	End result 2017/18	Target 2018	Colour code for end result	Data source
other sectors that have an impact on health	welfare clinics who are stunted						
	Percentage of children under 5 attending child welfare clinics who are underweight	2.4	4.8	5.3	1		DHIS2
HEALTH INVESTMENT OUTPUT TARGETS							
Improving access to services	Outpatient service utilization rate per capita	1.3 (modified baseline as per changes in DHIS2)	1.6	1.2	4		DHIS2
	Percentage of the population living within 5 km of a health facility	80	No data	91	90		KMFL
	Percentage of facilities providing delivery services that offer basic essential obstetric care	65	69	81	90		HHFA 2018
	Percentage of hospitals providing comprehensive essential obstetric care	No data	29	25	60		HHFA 2018
	Percentage bed occupancy rate	No data	No data	46	95		HHFA 2018
	Percentage of facilities providing immunization services[d]	80	85	71	100		HHFA 2018
	Percentage of deliveries by caesarean section (not an indicator in the Strategic Plan)	13	13	14.4	14		DHIS2
	Number of health facilities per 10,000 people	1.9	2.2	2.2	2		KMFL/DHIS2
Improving quality of care	Percentage of health facilities with service charters	No data	61	82	90		Joint Assessment Report 2018
	Percentage TB cure rate	83 (Ministry of Health 2013)	85 (Ministry of Health 2016)	70	90		TIBU
	Percentage of maternal and other deaths subject to audits	44.2	66.6	92.9	85		DHIS2
	Average length of stay (in days) as an inpatient (general ward)	4.7	14.3	5.1	4		Joint Assessment Report 2018

Key

Not achieved	Nearly achieved	Achieved

ANNEX B: INDICATORS AND TARGETS OF THE KENYA HEALTH SECTOR STRATEGIC PLAN 2018–2023

A.1 Indicators and targets by impact

ANNEX 1: INDICATORS AND TARGETS OF THE KENYA HEALTH SECTOR STRATEGIC PLAN 2018–2023

A.1 Indicators and targets by impact

Table A.1: Impact indicators and targets

Expected Result (Impact)	Indicator	Unit of Measure	Baseline	Mid Term	End Term	Frequency of data collection	Data source
Mortality by age and sex			2017/ 2018	2020/ 2021	2022/ 2023		
Increase the overall life expectancy by 5 years	Life expectancy at birth	Age (yrs)	63	66	68	5 years	KDHS
Increase the overall healthy life expectancy by 5 years	Healthy Life Expectancy (HALE)	Age (yrs)	58.9	61	63	5 years	GHO 2016
Reduction of under 5 mortality rate by 23%	Under Five Mortality Rate per 1,000 live births	No.	52	45	40	5 years	KDHS
Reduction of infant mortality rate by 28%	Infant Mortality Rate per 1,000 live births	No.	39	31	28	5 years	KDHS
Reduction of neonatal mortality rate by 32%	Neonatal mortality rate per 1,000 live births	No.	22	17	15	5 years	KDHS
Reduction in still-birth Rate by 35%	Stillbirth rate per 1,000 total births	No.	23	17	15	5 years	KDHS
Mortality by cause							
Reduction of maternal mortality ratio (per 100,000 live births) by 45%	Maternal Mortality Ratio (MMR) per 100,000 live births	No.	362	230	200	5 years	KDHS
Reduction in AIDS related Deaths	Number of AIDS related Deaths	No.	28,200	17,936	13,266	5 years	Kenya HIV Estimates
Reduction in deaths from TB by 50%	TB Mortality rate	%	38	25	19	Annually	Annual WHO Global TB Report
Reduction of Malaria Mortality Rate by 30%	Malaria Mortality rate	%	5.6	4.5	4	5 years	MIS
Proportion of deaths due to NCDs (Cardiovascular, Cancer, Diabetes, Chronic Respiratory Diseases) by 64%	NCDs Mortality Rate	%	55	35	20	5 years	STEPS
Reduction of cancer mortality rate by 17%	Cancer mortality Rate (adult)	%	3	2.6	2.5	5 Years	STEPS

Expected Result (Impact)	Indicator	Unit of Measure	Baseline	Mid Term	End Term	Frequency of data collection	Data source
Reduction of mortality due to road traffic injuries by 55%	Death rate due to road traffic injuries	%	11	8	5	Yearly	KHIS
Reduce mortality due to dietary risk factors by 37%	Mortality attributable to dietary risk factors (per 100,000)	No.	41.5	28	26	Yearly	GBD
Morbidity							
Reduce HIV Prevalence by 14%	HIV prevalence rate (%)	%	4.9	4.5	4.2	Yearly	KENPHIA
Reduce HIV Incidence by 47%	HIV incidence rate (%)	%	0.19	0.15	0.1	5 years	KENPHIA
Reduction in prevalence of diabetes by 58%	Diabetes Disease Prevalence Rate (per 100,000)	No.	1.2	0.7	0.5	5 years	STEPS
Reduce Hepatitis B surface antigen prevalence by 29%	Hepatitis B surface antigen prevalence (%)	%	3	2.71	2.13	5 years	KENPHIA
Reduce Incidence by 50%	TB incidence rate per 100,000 adult population	No.	292	234	146	Annually	Annual WHO Global Report
Reduction in Malaria Incidence among the population at Risk by 22%	Malaria incidence rate per 100,000 population	No.	166	150	130	3 years	MIS
Risk factors							
Reduction of stunting in children by 35%	Prevalence of stunting amongst under 5 children	%	26	20	17	5 years	KDHS
Reduce the prevalence of underweight among children under 5 years by 36%	Prevalence of underweight amongst under 5 children	%	11	8.5	7	5 years	KDHS
Increase the exclusive breastfeeding rate by 14%	Exclusive breastfeeding rate (0-6 months)	%	61.4	65	70	5 years	KDHS
Reduction of deaths due to NCDs by 33%	NCD mortality rate (18-59 years) (per 100,000)	No.	161	135	108	2 Years	WHO NCD Progress Monitor, Kenya Vital Statistics Report
Increase the prevalence of cervical cancer screening by 110%	prevalence of women (25-49) who have ever been screened for cervical cancer	%	16.6	28	35	5 years	STEPS
Reduce the prevalence of tobacco use by 21.7%	Prevalence of current tobacco use among adults (%)	%	23*	20	18	5 years	STEPS

Expected Result (Impact)	Indicator	Unit of Measure	Baseline	Mid Term	End Term	Frequency of data collection	Data source
Reduction in prevalence of hypertension among adults aged 18+ by 50%	Age-standardized prevalence of raised blood pressure among adults aged 18+ (Hypertension)	%	23.8	16	12	5 Years	STEPS
Increase the proportion people on medication for diabetes by 111%	Prevalence of raised blood glucose/currently on medication for diabetes in adults (18-69 years)	%	1.9	2.5	4	5 years	STEPS
Reduction in prevalence of cholesterol by 32%	Prevalence of raised total cholesterol in adults	%	13.3	11	9	5 Years	STEPS
Reduction in prevalence of obese-overweight and obese by 28%	Prevalence of obese-overweight and obese among adults aged 18+ (%)	%	27.9	22	20	5 Years	STEPS
Decrease proportion of population with low level of total physical activity by 37%	Percentage of population with low level of total physical activity	%	10.8	8.8	6.8	5 Years	STEPS
Decrease the incidence of persons involved in Road Traffic accidents by 7%	Incidence of adults (18+ years) involved in Road Traffic accidents in the preceding year	%	5.8	5.6	5.4	5 Years	STEPS
Reduction in Physical and/ or Sexual Based Violence prevalence rater by 22%	Physical and/or Sexual Violence prevalence rate in the last 12 months	%	25.5	23	20	5 years	KDHS
Reduce early child marriages by 99%	Early Child Marriage (Proportion of women aged (25-49) married by age 18	%	28.7	24	20	5 years	KDHS
Reduction of Female Genital Mutilation/ Cutting Incidence/ Related Maternal Complications by 24%	Proportion of women aged 15-49 circumcised	%	21	18	16	5 years	KDHS
Fertility							
Reduce adolescent birth rate by 33%	Adolescent birth rate	%	18	16	12	5 years	KDHS
Reduction of total fertility rate by 21%	Total fertility rate	%	3.9	3.4	3.1	5 years	KDHS

Expected Result (Impact)	Indicator	Unit of Measure	Baseline	Mid Term	End Term	Frequency of data collection	Data source
Financial Risk Protection							
Reduction in population incurring catastrophic health expenditures by 60%	% of population incurring catastrophic health expenditures	%	4.9	2	2	5 years	KHHEUS
Reduction of out of pocket expenditure on health as a share of total health expenditure by 52%	Out-of-pocket expenditure on health (%) as a share of total health expenditure	%	31.5	25	15	3 years	NHA
Increase the proportion of people living healthy lives and promote well-being for all at all ages*	UHC Service Coverage Index of essential health services	%	77*	86	100	Annually	KHIS

A.2 Indicators and targets by objective of the Kenya Health Policy 2014–2030

Table A.2: Eliminate communicable conditions – indicators and targets

Indicator	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsible
Percentage of children fully immunized	74	76	79	80	82	85	KHIS	Monthly	MOH
Percentage of infants receiving three doses of Penta3 (HIB/HepB/DPT3)	80	83	87	90	92	95	KHIS	Monthly	MOH
TB treatment success rate (all forms of TB)	83	90	90	90	90	90	TIBU	Quarterly	MOH
TB case notification rate (per 100,000 Population)	185 (2018)	187 (2019)	189 (2020)	191 (2021)	193 (2022)	195 (2023)	TIBU	Annual	MOH
Proportion of HIV positive pregnant women who are currently on ART	94	95	96	97	98	98	KHIS	Monthly	MOH
Antiretroviral therapy coverage (Adults)	67	70	72	74	75	77	KHIS	Monthly	MOH
Antiretroviral therapy coverage (Children)	84	85	88	89	90	93	KHIS	Monthly	MOH
Children under five with diarrhea treated with ORS & Zinc (%)	25	50	60	65	70	75	KHIS	Monthly	MOH
Proportion of targeted pregnant women provided with LLIN	88	89	90	92	94	95	KHIS	Monthly	MOH/ KNBS
Total confirmed malaria cases [per 1,000 persons per year]	62 (2016)	60	53	47	31	15	KHIS KMS	Annually	M&E DNMP
Proportion of infants in malaria-endemic areas who slept under LLIN	56	60	63	66	68	80	KDHS/KMIS	3-5 yearly	MOH/ KNBS
Proportion of women in malaria-endemic areas who slept under LLIN	58	60	64	66	68	80	KDHS/KMIS	3-5 yearly	MOH/ KNBS
Malaria prevalence rate (%)	8	8	7	6	6	5	KDHS/KMIS	3-5 yearly	MOH/KNBS

Table A.3: Halt and reverse the burden of non-communicable conditions and mental disorders – indicators and targets

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsible
Age-standardized prevalence of raised blood pressure among adults aged 18+ (Hypertension)	23.8	N/A	N/A	16	N/A	12	STEPS	5 Years	MOH/KNBS/ WHO
Hypertension incidence rate (per 100,000)[2]	2557	2853	2903	2953	3003	3053	KHIS	Monthly	MOH
Diabetes incidence rate (per 100,000)[2]	890	921	951	981	1011	1041	KHIS	Monthly	MOH
The proportion of health facilities that offer cardiovascular disease (readiness)	55	N/A	N/A	68	N/A	75	KHFA	3 Years	MOH
Percentage of women aged 25–49 years screened for cervical cancer	16	N/A	N/A	28	N/A	35	STEPS	5 Years	MOH/KNBS/ WHO
% of women aged 25-49 years screened for cervical cancer in the past year	1.9	5	8	10	15	20	KHIS	Monthly	MOH
Cancer Incidence rate (per 100,000)	94	90	85	82	78	75	CANCER REGISTRY	Monthly	MOH/NCI (GLOBOCAN estimates used as baseline)
HPV immunization coverage for 10 -year-olds	0.8%	1%	30%	50%	70%	80%	NVIP	Monthly	MOH

Table A.4: Reduce the burden of violence and injuries – indicators and targets

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsible
Road traffic injuries in OPD as a % of all diagnoses	2.5	2.2	2.0	1.8	1.6	1.5	KHIS	Monthly	MOH
Percentage of women aged 15-49 years who experienced gender-based violence; last year	20	18	16	14	12	10	KDHS	Yearly/ 5 years	MOH/KNBS
Road traffic fatalities per 100,000 population	6.9/100,000 (2015, NTSA) 12.4/100,000 (2015, CRS)	10	9	8	6	5	NTSA/ CRS/ KHIS	Yearly	MOH/CRS

2 The goal is to capture more cases initially with better diagnosis and improved data collection and the aim at reducing the real burden

Table A.5: Provide essential health care – indicators and targets

Indicator	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsible
Proportion of skilled Deliveries conducted in Health facilities	59	65%	67%	70%	73%	75%	KHIS	Monthly	MOH
Proportion of hospitals providing CEmONC services (public, private, primary, secondary & Tertiary)	25%	N/A	N/A	40%	N/A	50%	HFA	3 Yearly	
Couple Year Protection (CYP) (Million)	1.63	3	5	7	10	15	KHIS	Monthly	MOH
Percentage of women of reproductive age (15–49 years) who have their need for family planning satisfied with modern methods.	53% (KDHS 2014);	N/A	N/A	65%	N/A	70%	KDHS	5 Years	KNBS/MOH
% of women of reproductive age with unmet needs for family planning	18	N/A	N/A	15	N/A	13	KDHS	5years	MOH
Percentage of Pregnant women who completed four or more ANC visits	49%	51%	53%	55%	57%	59%	KHIS	Monthly	MOH
Fresh stillbirth rate per 1,000 births in institutions	12	11	10	9	8	7	KHIS	Monthly	MOH
Percentage of Low birth weight in health facilities	5	4	3	3	2	2	KHIS	Monthly	MOH
Number of maternal deaths in health facilities per 100,000 deliveries	102	95	92	89	86	83	KHIS	Monthly	MOH
Percentage of adolescents (10-19 years) being pregnant	18	17	17	16	16	15	KHIS	Monthly	MOH

Table A.6: Minimize exposure to health risk factors – indicators and targets

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency	Responsible
Percentage of children 0-5 (<6 months) months who were exclusively breastfed	61	N/A	N/A	67	N/A	70	KDHS	5 years	MOH/KNBS
Percentage of adult population (men) who smoke	20	N/A	N/A	17	N/A	15	Survey (STEPS)	5 Years	MOH/KNBS/ WHO
Percentage of the 18-69year old's population that consumed excess alcohol*	19	N/A	N/A	15	N/A	12	Survey (STEPS)	5 Years	MOH/KNBS/ WHO
Percentage reduction of overweight/obesity	28	N/A	N/A	24	N/A	20	Survey (STEPS)/ KHIS	3-5 years/ monthly (overweight)	MOH/KNBS/ WHO
Proportion of Antibiotics under Reserve classification prescribed in level 4 or lower levels#	NA	N/A	N/A	0	N/A	0	KHFA	3 Yearly	MOH-Division of Health Products

Table A.7: Strengthen collaboration with the private sector and other sectors that have an impact on health – indicators and targets

Indicator	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency	Responsible
Percentage of households using improved sanitation facilities	52	N/A	N/A	65	N/A	70	KMIS, KDHS	5 years	MOH, KNBS
Percentage of households using improved safe water facilities	71	N/A	N/A	78	N/A	80	KMIS, KDHS	5 year	MOH, KNBS
Percentage of Health facilities with access to source of Power	71	N/A	N/A	85	N/A	90	KHFA	3 Yearly	MOH/KNBS/ WHO
Percentage of Health facilities with access to source of Improved water source	86	N/A	N/A	92	N/A	96	KHFA	3 Yearly	MOH/KNBS/ WHO
Percentage of women completed secondary education	27	N/A	N/A	50	N/A	60	KDHS	Yearly	MOH/KNBS
Proportion of health facilities with internet connectivity	31	35	45	50	55	60	KHFA/ Admin data	3 Yearly/ Yearly	MOH/ICT
Proportion of health facilities with accessible road network	-	65	70	75	80	85	KHFA/ Admin data	3 Yearly	MOH/KNBS/ MOPW
Percentage of children under 5 years who are stunted	26	24	22	20	18	15	KDHS/ KHIS	5 Yearly/ Yearly	MOH/KNBS
Percentage of children under 5yrs who are underweight	10	9	8	7	6	5	KDHS/ KHIS	5 Yearly/ Yearly	MOH/KNBS

A.3 Indicators and targets on Improve Service Capacity, Access, Demand and Quality

Table A.8: Improving Access to Services and Demand of Care

Indicator	Baseline (2017/2018)	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsibility
Service Availability and Readiness	63	N/A	N/A	75	N/A	85	HHFA	Every 3 Years	MOH/KNBS/ WHO
OPD per capita utilization rate	1.4	2	2.5	3	3.5	4	KHIS	Monthly	MOH
% bed occupancy rate	45	50	55	60	65	70	KHIS	Monthly	MOH
% of health facilities with essential medicines (order fill rate) * use the agreed list of essential drugs from Division of HPT	85	88	90	92	94	96	KEMSA/ MEDS	Yearly	MOH
Access to specialized health care in management of lifestyle diseases (Renal, Cancer, Diabetes and Cardiovascular Diseases)	12	16	20	22	47	50	KHIS	Yearly	MOH
Percentage of delivery facilities providing all 7 Basic Emergency Obstetric Care (BEmONC) services	12	N/A	N/A	40	N/A	55	KHFA	Every 3 Years	MOH

Indicator	Baseline (2017/2018)	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency	Responsibility
Proportion of hospitals providing CEmONC services (public, private, primary, secondary & Tertiary)	25	N/A	N/A	40	N/A	50	KHFA	Every 3 Years	
Caesarean section rate (%)	14.5	15	15	15	15	15	KHIS	Yearly	MOH
Average distance to Nearest Health Facility	9.8	N/A	N/A	7	N/A	5	KHHEUS, KDHS	3-5 Years	MOH/KNBS/ WHO
Core Health Worker density per 10,000 Population (Nurses, Doctors, RCOs	15.4	16.5	18.5	20	21.6	23.5	Emory/ IHRIS Report	Yearly	MOH/CDC/ Emory
Number of Doctors per population ratio (per 10,000 population)	1.5	1.7	2.5	3	3.5	4	Emory/ IHRIS Report	Yearly	MOH/CDC/ Emory
Number of Nurses per population ratio (per 10,000 population)	11.3	12	12.5	13	13.5	14	Emory/ IHRIS Report	Yearly	MOH/CDC/ Emory
Health Facility density (number per 10,000 population)	2.4	2.5	2.5	2.5	2.5	2.5	KMHFL	Yearly	MOH
Inpatient beds per capita, relative to a maximum threshold of 18 per 10,000 population	13.2	14	15	16	17	18	KMHFL, KHIS		MOH
% of persons enrolled into an insurance scheme	19	30	60	80	90	100	NHIF, KHHEUS, KDHS	Yearly	MOH/KNBS/ WHO/WB

A.4 Indicators and targets by health-system investment area

Table A.9: Health service delivery – indicators and targets

Indicator	Baseline (2017/2018)	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency	Responsible
Proportion of Community Health Units Established	55	65	70	80	90	100	KHIS	Annual	MOH
Proportion of Fully functional Community Units	66	70	85	90	95	100	KHIS	Annual	MOH
Proportion of counties with functional primary care networks (PCNs)	-	-	30	40	50	70	Joint Supervision report/ Admin data	Annual	MOH
No. of counties implementing National Action Plan for Health Security	0	5	12	15	18	22	National/ County Reports	Annual	MOH
Health Emergency Operations Centre (EOCs) in the country (National/county governments)	1	15	25	47	47	47	National/ County Reports	Annual	MOH
No. of counties with dispatch centers linked to the national ambulance command center	0	10	15	20	30	35	National/ County Reports	Annual	MOH

Indicator	Baseline (2017/2018)	2018/ 19	2019/ 20	2020/ 21	2021/ 22	2022/ 23	Data Source	Frequency	Responsible
Proportion of facilities inspected at least once in two years by the independent regulatory authority for quality standards	-	40	60	70	75	80	KHPOA Reports	Annual	MOH
Proportion of existing laboratories accredited	-	60	70	85	90	95	KENAS	Annual	KMLTTB
Regional comprehensive diagnostic centers (laboratory and imaging) accredited	0	0	2	6	8	10	National/ County reports	Annual	KMLTTB
Proportion of counties implementing at least 4 joint/ integrated support supervision annually	20	45	60	75	85	100	Joint Assessments	Annual	MOH
TB treatment success rate	81	83	85	86	88	90	TIBU	Annual	MOH
Average Length of Stay (ALOS)(Days)	7.8	7	6	5	4	4	KHIS	Monthly	MOH
Proportion of facility maternal deaths audited	80.4	82	85	87	90	94	KHIS	Monthly	MOH
Facility maternal deaths per 100,000 deliveries	102	95	92	89	86	80	KHIS	Monthly	MOH
Facility neonatal deaths rate per 1,000 live births	10.1	9	8	7	6	5	KHIS	Monthly	MOH
Malaria inpatient case fatality	5.6	5	4.5	4	3.5	3	KHIS	Monthly	MOH
Fresh stillbirth rate	12.8	10	9	8	7	6	KHIS	Monthly	MOH
Client satisfaction index	78.2	80	82	84	86	88	Survey	Annual	MOH/ WHO
Proportion of facilities meeting minimum quality and safety standards	-	40	60	70	75	80	KHPOA Reports	Annual	MOH
Proportion of suspected malaria cases presenting to facilities tested with RDT or microscopy	59	70	90	95	100	100	KHIS	Monthly	MOH
Proportion of facilities that perform inpatient mortality reviews	43	53	60	70	80	100	KHFA/Admin data	3 Yearly/ Yearly	MOH
Proportion of hospitals with functional facility quality improvement team (QIT)	53	60	70	80	90	100	KHFA/Admin data	3 Yearly/ Yearly	MOH

Table A.10: Health leadership and governance – indicators and targets

Indicator	Baseline (2017/ 2018)	2018/ 19	2019/ 20	2020/ 21	2021/ 22	2022/ 23	Data Source	Frequency	Responsibility
1. Improve health system stewardship, public and social accountability at all levels									
Kenya Essential Package for Health (KEPH) document revised (%)	0	0	10	30	60	100	MOH	Yearly	MOH
Number of Annual workplan developed on time (30th June)	47	30	48	48	48	48	Council of Governors and MOH	Yearly	County & National Government
Number of planning units with annual performance reports	47	30	48	48	48	48	CoG and MOH	Yearly	County & National Government
Number of units (national and county) health departments conducting at least one annual customer satisfaction surveys	10	10	48	48	48	48	Council of Governors and MOH	Yearly	County Governments
Number of units (national and county) health departments conducting at least one annual client, employee and work environment satisfaction surveys	10	10	48	48	48	48	Annual health reports (County/ National)	Yearly	Council of Governors and MOH
2. Implement appropriate health governance structures at the national and 47 county levels									
Number of Intergovernmental Consultative Forum held in a reporting year	-	4	4	4	4	4	Council of Governors and MOH	Yearly	County & National Government
3. Establish and coordinate health and strategic partnership arrangements at all levels									
Number of health sector stakeholder consultative health meetings held.	-	4	190	190	190	190	Council of Governors and MOH	Yearly	County & National Government
4. Advocate to policy makers and parliamentarians for increased health systems support and investment at all levels									
Number of counties with functional financial protection mechanism in place	3	48	48	48	48	48	Annual health reports	Yearly	County Governments
Number of new or reviewed legislation related to health	2	5	8	12	15	20	MOH registration registry	Annually	MOH

Table A.11: Human resources for health – indicators and targets

Indicator	Baseline 2017/18	2018/ 19	2019/ 20	2020/ 21	2021/ 22	2022/ 23	Data source	Frequency
Core Health Worker density per 10,000 Population (Nurses, Doctors, RCOs	15.4	16.5	18.5	20	21.6	23.5	KHFA/HR Assessments/iHRIS	3 Yearly/ Yearly
Number of Doctors per population ratio (per 10,000 population)	1.5	1.7	2.5	3	3.5	4	KHFA /HR Assessments /iHRIS	3 Yearly Yearly
Number of Nurses per population ratio (per 10,000 population)	11.3	12	12.5	13	13.5	14	KHFA HR Assessments /iHRIS	3 Yearly Yearly
Health Facility density (number per 10,000 population)	2.4	2.5	2.5	2.5	2.5	2.5	KMHFL	Yearly
Density of community health volunteers (per 5 000 population)	7.8	8	8.2	8.4	8.6	8.8	KMCUL	Yearly

ANNEXEX 2: Medical commodities tracer items (Pharmaceutical, Non-Pharmaceuticals and Antibiotics under Reserve)

	PHARMACEUTICAL TRACER ITEMS	Level of stocking
1	Amoxicillin cap 500mg	2
2	Amoxicillin Tablets 250mg (Dispersible)	2
3	Paracetamol Tablets 500mg	1
4	Cotrimoxazole Tablets 960 mg	2
5	Albendazole Tablets 400 mg	1
6	Loratadine 10mg tabs	2
7	Metronidazole Susp 200mg/5mL	2
8	Gentamicin sulphate Inj 40mg/ml	2
9	Benzylpenicillin Inj 5MU	2
10	Adrenaline (epinephrine) Inj 1mg/1mL amp	2
11	Co-pack of 4 satchets of low osmolarity ORS (500ml formulation) + 10 tablets of dispersible zinc	1
12	Tetracycline eye ointment 1%	1
13	Clotrimazole cream 1%	2
14	Oxytocin Inj 10 IU/ml amp	2
15	Insulin pre-mixed (short acting + intermediate acting) 100 IU/ml (30/70)	4
16	Enalapril Tablets 5mg	3
17	Sodium chloride IV infusion 0.9% (Normal saline)	2
18	Suxamethonium chloride Inj 50mg/ml	4

Note: Suxamethonium and Insulin are only supposed to be stocked in level 4's and above.

Tracer items for non-pharmaceuticals (All this should be available in level 2 and above)

	Non-Pharmaceuticals tracer items
1	Autoclaving Tape
2	Blades, Surgical, size 23
3	Catheters Folley's 30ml size - 16 FG
4	Cord Clumps
5	Cotton, Gauze Plain 36" x 100yds - 1500gms
6	Cotton wool 400gm
7	Giving sets, Blood, Double Chamber
8	Giving Sets, IV Fluid Infusion, with air inlet
9	Gloves Examination, disposable, Latex, medium, 50 pairs
10	Gloves, Surgical, Latex (Sterile) size 7.5"
11	I.V. Cannulaes, short Teflon, 20G
12	I.V. Cannulaes, short Teflon, 24G
13	Maternity pads
14	Polyglycolic acid 2/0 RBN 40mm x75cm
15	Safety Boxes
16	Sutures, Nylon No. 2/0 1/2" circle reverse, Cutting Needle,40mm,75cm Non-absorbable (sterile)
17	Syringes 2ml with G23 Needle (Reuse Prevention)
18	Syringes 5ml with G 21needle (Reuse Prevention)
19	Syringes, Insulin, with 30G Needle
20	Zinc Oxide strapping 7.5cm x 4.5m BPC

#Antibiotics under reserve (this should only be stocked in Level 5 and 6 facilities)

1. Colistin
2. Ertapenem
3. Fosfomycin
4. Linezolid
5. Meropenem
6. Polymyxin
7. Teicoplanin
8. Tigecycline
9. Vancomycin

Table A.12: Health products and technologies – indicators and targets

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency
To expand current capacity for access to health care commodities								
Order fill rate of the 18 tracer medicines by quantity per item as (%) *	85	90	90	95	95	100	KEMSA	Monthly
Order fill rate of the 20 trace non-pharmaceutical commodities by quantity per item as (%)	85	90	90	95	95	100	KEMSA	Monthly
Percentage of Health facilities with stock out on any of the 20 tracer non-pharm for 7 consecutive days in a month*	44%	40	30	20	10	0%	KHFA/KHIS	3 Yearly/ Monthly
Percentage of Health facilities with stock out for any of the 18 tracer medicines for 7 consecutive days in a month*	44%	40	30	20	10	0%	KHFA/KHIS	3 Yearly/ Monthly
Amount of funds allocated to KEMSA for essential medicines and commodities (Kshs Millions)	8,800	8,800	14,000	16,500	18,000	19,937	KEMSA	Monthly
Proportion of HPTs procurement value allocated to local manufacturers (%)	12.16	12.16	18	20	20	20	KEMSA	Monthly
% contribution of government in co-financing for public health commodities in public health programs (HIV, TB, Malaria, Nutrition, Vaccines & Family Planning products)	<2%	2	4	6	8	10	MOH	Monthly
Proportion of hospitals with Parenteral feeds (Level 4,5,6 facilities)	-	20	35	50	65	80	HIS (Clinical Nutrition/ Dietetics-MOH 711)	Monthly
To assure quality of all health commodities								
Number of functional Medical & Therapeutics Committees (MTCs) at County Level	2.12 (1 county)	47	47	47	47	47	KHFA/ Admin data	3 Yearly/ Annaully
Availability of end-to-end visibility of tracer HPTs through automation	0	100	100	100	100	100	KEMSA, MOH, Counties	Monthly

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency
Prudent management of health commodities.								
No. of counties sensitized on essential medicines list	NA	47	47	47	47	47	Admin Data	Annually
Number of counties with functional commodity security TWGs	80%	80%	90%	100	100	100	Admin Data	Annually
Proportion of Antibiotics under Reserve classification prescribed in level 4 or lower levels#	N/A	N/A	N/A	0	N/A	0	KHFA	3 Yearly
Enhanced support supervision for health commodities								
No. of joint (National and County) supply chain audits conducted	N/A	4	4	4	4	4	National and County Health reports	Quarterly
Adequate safe and equitable supply of blood and blood products								
Proportion of safe blood available for transfusion	NA	30%	40%	50%	60%	70%	KNBTS	Annually

Table A.13: Health Financing – indicators and targets

Key Performance Indicators	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency
Government allocation to health as % of total government budget	6.8 (2017)	8	11	13	15	15	Budget estimates, County Health Budget Analysis 9 (Revised estimates in the supplementary budget)	Annually
Government spending on health as % of total government spending	6.8 (2017)	8	11	13	15	15	Audited financial reports of OAG	Annually
Government spending on health as % of Total Health Expenditure (THE)	37 (2015/16)	43	N/A	N/A	55	N/A	National Health Accounts	3 Yearly
Government spending on health as percentage of GDP	2.5 (2015/16)	3	N/A	N/A	5	N/A	National Health Accounts	3 Yearly
Government per capita health spending (US$)	27 (2015/16)	35	N/A	N/A	50	N/A	National Health Accounts	3 Yearly
Percentage of total health expenditure contributed to by donors	23.4 (2015/16)	20	N/A	N/A	15	N/A	National Health Accounts	3 Yearly
Out of pocket expenditure as % of total health expenditure	31.5 (2015/16)	25	N/A	N/A	15	N/A	National Health Accounts	3 Yearly
Percentage of population covered under any insurance	19.9 (2018)	N/A	N/A	75	N/A	N/A	KHHEUS, KIBHS	3 Yearly
Percentage of population covered under NHIF	17.5	20	25	30	35	40	NHIF/KHHEUS	3 Yearly / Annually

Table A.14: Health Infrastructure– indicators and targets

Key Performance Indicators	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency
Expanded and improved physical infrastructure – buildings, plants, utilities, energy sources and others								
Proportion of health facilities complying with health infrastructure norms and standards	-	17	34	51	68	85	KHFA/ County Reports	Annually
Proportion of the population within 5 km distance to a health facility	62 (2018)	69	75	82	88	95	AccesMod - Modelling	Annually
Proportion of counties with approved budgets for maintenance of physical infrastructure	20 (2018)	30	50	75	100	100	KHFA/ County Reports	Annually
Proportion of health facilities implementing preventive maintenance plans for physical infrastructure	16 (2018)	33	50	66	83	100	KHFA/ County Reports	Annually
Expanded and improved use of equipment – medical devices, hospital equipment and other technologies								
Proportion of health facilities complying with medical equipment and devices norms and standards	-	17	34	51	68	85	KHFA/ County Reports/	Annually
Proportion of counties with approved budgets for maintenance of medical equipment and devices	20 (2018)	30	50	75	100	100	KHFA/ County Reports	Annually
Proportion of health facilities implementing preventive maintenance plans for medical equipment and devices	16 (2018)	33	50	66	83	100	KHFA/ County Reports	Annually
Improved Information Communication and Technologies (ICTs) to all facilities								
Proportion of health facilities with Electronic Health Records	0 (2018)	16	32	48	64	80	County EMR Implementation Report	Annually

Table A.15: Health Information Monitoring and Evaluation – indicators and targets

Indicator	Baseline 2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Data source	Frequency
Percentage of health facilities submitting timely information (timeliness of reports)	77	78	83	87	90	92	KHIS	Monthly
Percentage of community units submitting timely information (timeliness of reports)	61	65	70	75	80	85	KHIS	Monthly
Percentage of health facilities submitting complete information (completeness of reports)	89	85	88	90	93	95	KHIS	Monthly
Percentage of community units submitting complete information (completeness of reports)	69	73	77	80	83	85	KHIS	Monthly
Number quarterly data review meeting held per county	30	47	94	131	160	188	MOH/ County reports	Annually
Number of counties with completed annual health performance review Reports	30	47	47	47	47	47	KHF/ reports	Yearly
Percentage of hospital deaths having certified cause of death	-	55	60	70	75	80	CDH/ KHIS	Annually
Death registration coverage (Health facility and Community) reported	41.2	53	65	77	85	90	CRVS Report KHIS	Annually
Percentage of hospitals reporting on inpatient morbidity and mortality	30	40	50	60	65	70	KHIS Tracker	Monthly
Proportion of public health facilities with functional Electronic Health Records (EHR)	0	10	15	20	25	30	MOH/ICT	Annually

Table A.16: Health Research and Development – indicators and targets

Indicators	Baseline (2017/18)	2018/19	2019/20	2020/21	2021/22	2022/23	Data Source	Frequency
Integrated research plan and capacity building initiative at national and county levels developed								
No. of counties with health research committees in place	-	10	20	30	40	47	County Annual Health Reports	Annually
Number of national level staff capacity built on knowledge translation	-	5	10	15	20	30	Training Reports	Annually
Enhanced investment in research and evidence generation for effective policy and programme development								
Proportion of health budget allocated to research (%)	<2	3	5	7	9	10	County and National Annual Health Reports	Annually
Number of policy briefs developed to inform on evidence	-	1	3	4	4	4	Uploads on KHRO	Annually
Strengthened research links with academic institutions								
No. of counties with MOUs on research with at least one academic institution	-	5	15	20	25	30	County and National Annual Health Reports	Annually

ANNEX C: KHSSP 2018 – 2023 IMPLEMENTATION PLAN

Leadership and Governance

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
To improve stewardship, public and social accountability at all levels	Capacity development of managers, institutions and management systems responsible for quality health care delivery; Institutionalization of leadership and governance standards, processes and norms; Policy and plan formulation: Formulating policy and strategic plans which are adopted and adapted by counties for direct implementation and regular review	Ongoing reviews of the management capacities and systems	X	X		X	X
	Conduct an institutional assessment	Conduct an institutional assessment			X		
	Conduct targeted leadership and management trainings at all levels for 144 persons per year	Conduct targeted leadership and management trainings at all levels for 144 persons per year	X	X	X	X	X
	Convene a workshop to develop the orientation package	Convene a workshop to develop the orientation package	X				
	Conduct orientation for health workers on the UHC vision and package (48* 100 staff)	Conduct orientation for health workers on the UHC vision and package (48* 100 staff)	X				
	Finalize and approve the leadership norms and standards at MOH and COG	Finalize and approve the leadership norms and standards at MOH and COG	X	X	X		

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Disseminate and sensitize all counties and National (3 for each county and 6 from National MOH) on the leadership and governance norms and approved structures	Disseminate and sensitize all counties and National (3 for each county and 6 from National MOH) on the leadership and governance norms and approved structures	X	X	X		
		Operationalize the leadership and governance norms including standing structures -	X	X			
	Operationalize the leadership and governance norms including standing structures -	Develop a policy brief/report on implementation of the leadership and governance norms for presentation at the IGF					
	Develop a policy brief/report on implementation of the leadership and governance norms for presentation at the IGF	Orientation on social accountability for 250 health managers (5 from counties/ national MOH + 5 from faith based and private sector)	X	X			
Public and Social accountability framework operationalized at all levels to address efficient and appropriate use of resources and finance, including corruption.	Orientation on social accountability for 250 health managers (5 from counties/ national MOH + 5 from faith based and private sector)	Targeted interventions to address the recommendations client satisfaction and responsiveness survey 2016	X	X	X	X	X
	Targeted interventions to address the recommendations client satisfaction and responsiveness survey 2016	Conduct biennial periodic and client satisfaction responsiveness survey	X		X		
	Conduct biennial periodic and client satisfaction responsiveness survey	Desk review on functionality of the complaints handling mechanisms	X	X	X	X	X
	Desk review on functionality of the complaints handling mechanisms	Provide technical assistance/ capacity building to the complaints handling mechanisms annually to 48 levels * 10 participants	X	X	X	X	X
	Provide technical assistance/ capacity building to the complaints handling mechanisms annually to 48 levels * 10 participants	Map the public participation forums and develop a calendar for these forums	X	X	X	X	X
	Map the public participation forums and develop a calendar for these forums	Convene at least 1 public participation forum per annual for at all levels (48 - counties and MOH)	X	X	X	X	X
	Convene at least 1 public participation forum per annual for at all levels (48 - counties and MOH)	Operationalize the anti-corruption committees at the MOH and DOH ; Establish Budget tracking with the civil society Tracking expenditures including by use; involvement of civil society Document experiences and experiments to improve efficiency Document experiences with "governing boards" of health financing agencies to promote public accountability, representation, and alignment with overall health policy	X	X	X	X	X

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Operationalize the anti-corruption committees at the MOH and DOH ; Establish Budget tracking with the civil society Tracking expenditures including by use; involvement of civil society Document experiences and experiments to improve efficiency Document experiences with "governing boards" of health financing agencies to promote public accountability, representation, and alignment with overall health policy	create awareness on the public officers ethics Act	X	X	X	X	X
	create awareness on the public officers ethics Act	Develop and disseminate annual reports on compliance/status of implementation of the ethics act	X	X	X	X	X
	Develop and disseminate annual reports on compliance/ status of implementation of the ethics act	Desk reviews on quality assurance bi-annual	X	X	X	X	X
	Desk reviews on quality assurance bi-annual	conduct a quality assurance supervision / assessments annually	X	X	X	X	X
	conduct a quality assurance supervision/assessments annually	Establish a taskforce to review the planning tools	X	X	X	X	X
Harmonized plans - Implement Quality One plan, one budget and one M&E (delivering as One)	Establish a taskforce to review the planning tools	Convene workshop to review the current tools and guidelines	X	X	X	X	X
	Convene workshop to review the current tools and guidelines	Convene quarterly meetings with the leadership at all levels to recommendations from various reports	X	X	X	X	X
	Convene quarterly meetings with the leadership at all levels to recommendations from various reports	Management processes	X	X	X	X	X
	Management processes	Sensitization workshop for (3 * 47 counties + 6 from National MOH, 15 - private, faith based and development partners)	X	X	X	X	X
Advocacy to policy makers, political leaders and donors for increased and sustained investment in health, protected budgetary allocation and systems strengthening	Sensitization workshop for (3 * 47 counties + 6 from National MOH, 15 - private, faith based and development partners)	Convene joint planning and review meetings bi-annually at all levels	X	X	X	X	X
	Convene joint planning and review meetings bi-annually at all levels	Identify and launch the UHC champions	X				
	Identify and launch the UHC champions	Convene an orientation for the UHC champions					
	Convene an orientation for the UHC champions	Develop messages	X		X		
	Develop messages	Produce the relevant materials	X		X		
	Produce the relevant materials	Disseminate materials to wider audience					

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Disseminate materials to wider audience	Conduct a rapid assessment on the functionality of the governance structures	X	X	X		
Knowledge management – Policy, plans and standard operating procedures documented, available and disseminated to partners and stakeholders Leadership and management coordination structures	Conduct a rapid assessment on the functionality of the governance structures	Develop a tool for monitoring of the governance structures	X	X	X		
	Develop a tool for monitoring of the governance structures	Convene regular management meetings in line with the governance framework / leadership and governance norms	X	X	X	X	X
	Convene regular management meetings in line with the governance framework / leadership and governance norms	Finalize the development of the standard protocol	X	X	X	X	X
	Finalize the development of the standard protocol	Disseminate the protocol	X	X			
	Disseminate the protocol	Monitor implementation of this protocols - desk review	X	X	X	X	X
	Monitor implementation of this protocols - desk review	Establish/formalize working committees on implementation of the Health Act	X	X	X	X	X
	Establish/formalize working committees on implementation of the Health Act	Status reports /operational guidelines from the various committees	X	X	X	X	X
	Status reports/operational guidelines from the various committees	convene a workshop to disseminate/sensitize health managers on the policies	X	X			
	convene a workshop to disseminate/sensitize health managers on the policies	Convene a workshop for 25 Pax to develop a framework/ tools for tracking policy implementation	X	X			
	Convene a workshop for 25 Pax to develop a framework/ tools for tracking policy implementation	Develop annual status reports on policy implementation	X	X	X	X	X
	Develop annual status reports on policy implementation	Develop a communication protocol/strategy for National and County and between them	X				
	Develop a communication protocol/strategy for National and County and between them	Convene quarterly health sector IGF meetings	X	X	X	X	X
	Convene quarterly health sector IGF meetings	Convene a workshop to review/ update the supportive supervision framework/protocol	X	X	X		
	Convene a workshop to review/ update the supportive supervision framework/ protocol	Conduct quarterly supportive supervision at all levels - National over Counties	X	X	X	X	X
	Conduct quarterly supportive supervision at all levels - National over Counties	Support the development of a legal and policy framework for Quality Assurance, Accreditation and Joint Inspections of Health Facilities	X	X	X	X	X

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Support the development of a legal and policy framework for Quality Assurance, Accreditation and Joint Inspections of Health Facilities	Review the draft with top leadership	X	X			
Sector Coordination and strengthened partnerships	Review the draft with top leadership	Convene the meeting to refine the final draft	X	X	X	X	X
	Convene the meeting to refine the final draft	Establishment of food and Nutrition Security Coordination structures as stipulated in the Food and Nutrition Policy and Implementation Framework with other line Ministries	X	X	X	X	X
	Establishment of food and Nutrition Security Coordination structures as stipulated in the Food and Nutrition Policy and Implementation Framework with other line Ministries	County sensitization meetings	X	X	X	X	X
	County sensitization meetings	Support the development and operationalization of a PPP Policy and Strategy	X	X			
	Support the development and operationalization of a PPP Policy and Strategy	Establish and convene quarterly coordination forums to enhance multi-sectoral dialogue for health programs/ projects	X	X	X	X	X
	Establish and convene quarterly coordination forums to enhance multi-sectoral dialogue for health programs/ projects	Annual forum for 160 participants	X	X	X	X	X
	Annual forum for 160 participants	Annual plan of action for ICCs	X	X	X	X	X

Research and Development

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
a. To strengthen coordination mechanism of research for health	Appoint a National Research Committee in line with the health act, 2017	Appoint a National Research Committee in line with the health act, 2017	X	X	X	X	X
b. Develop National Research for Health Bill	National Research for Health Bill	Develop National Research for Health Bill	X	X			
c. Develop a health research policy	Health research policy	Develop a health research policy	X	X			
d. Identify national and county research priorities	National and county research priorities	Establish a coordinating committees (ICC) at the National and county level	X	X	X	X	X
e. Establish robust health research coordination framework	Research coordination TWG		X				
	ToRs and workplan for the TWG	Joint meeting(s) with partners to share best practices and lessons	X	X	X	X	X
f. Strengthen strategic partnerships and networks in addressing national research agenda	Inventory of partners and networks established		X	X	X	X	X

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
g. Establish bilateral mechanisms to address cross border health research needs	Number of cross border research undertaken	Undertake cross border research needs assessment		X			
	Needs assessment report	Hold meetings with representatives of member countries to develop a plan of action		X			
	Number of Joint surveillance	Joint surveillance	X	X	X	X	X
	Number of cross border interventions undertaken	Develop health research data policy	X	X	X		
a. Develop health research data policy to capture sharing, ownership and security	Health research data policy available	Develop guidelines for health research data to operationalize the data policy	X	X	X		
b. To integrate health and research data management systems	Guidelines for health research data and SOPs	Creating a portal for sharing health research data	X	X			
		Design and develop the repository platform	X	X			
Establish an effective mechanism of research findings dissemination	Coordinating committee in place	Disseminate findings at the local, county and national levels	X	X	X	X	X
Establish a structured mechanism to synthesize research findings to facilitate policy formulation and practice	Number of policy briefs developed that are evidence based	Number of policy briefs developed that are evidence based	X	X	X	X	X
	Position papers that are evidence based	Position papers that are evidence based	X	X	X	X	X
To map health innovations and research products	The number of innovations and research products	Develop short courses on operational research	X	X	X	X	X
Establish continuous recruitment and advanced training programme for specialized health research professionals	Short courses developed	Set up an online platform for continuous learning		X			
	Online platform for continuous learning	Online platform for continuous learning		X			
	Number of advertisements as per needs	Number of advertisements as per needs	X	X	X	X	X
Improve terms and conditions of service for specialized health research professionals	Reviewed career progression guidelines	Construct modern laboratories at strategic location	X	X	X	X	X
Acquire state of the art research infrastructure	Modern laboratories at strategic locations constructed	Audit the existing infrastructure	X	X	X	X	X
Upgrade the existing research infrastructure	Number of infrastructure units audited	Upgrade the infrastructure as per the recommendations	X	X	X	X	X
	Number of upgraded infrastructure units	Equip the laboratories with modern equipment	X	X	X	X	X
Acquire cutting edge research equipment and technologies	Number of research equipment acquired	Develop a research equipment sharing policy	X				
Establish a research equipment sharing mechanism across institutions	Research equipment sharing policy developed	Review the health act to ring-fence funds for health research	X				

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
a. Ring-fence health research funds (30% of the national research fund)	Act reviewed	Develop a resource mobilization strategy		X	X		
b. Innovate ways of financing health research	A resource mobilization strategy developed	A resource mobilization strategy developed		X	X		
c. Increase research funding allocation	Increased health research funding	Mobilize health research funds	X	X	X	X	X
		Develop guidelines for harmonization and standardization ethical approvals		X			
Ensure all research activities acquire ethical approvals	Standard research approval guideline	Carry out compliance and quality assurance audits	X	X	X	X	X
Enhance compliance to approved research protocols	Number quality assurance audits	Quality audits	X	X	X	X	X

Human Resources for Health

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
Adequate, appropriate and equitably distributed health workforce	Develop and implement mechanism for development and sharing of specialists	a) Recruitment of personnel and Nomination (12 Nominated, 1 recruited CEO, and 5 administration staff)	X	X	X	X	X
	Recruitment	Recruitment	X	X	X	X	X
Attraction and retention of HCW	Train the locals to be employed in these hard to reach areas	Advertisement of training opportunities by Medical institutions	X	X	X	X	X
	Design and implement appropriate attraction and retention incentive package	Develop an appropriate incentive package that is attractive	X	X	X	X	X
	Issue a circular on succession management	Disseminate succession management plan	X	X	X	X	X
	Sensitize all staff on succession management	Plan staff sensitization workshops	X	X	X	X	X
(3) To strengthen Institutional capacity for HRH management	Strengthen HRH management institutions	Recruit more tutors/lectures	X				
	Conduct annual PAS for improved performance with rewards and sanctions framework	Departmental objective setting	X	X	X	X	X
	Establish the authorities of the KHPOA to implement its functions as stipulated in the Health Act 2017	Recruitment of Personnel for KHPOA as per the ACT of 2017	X	X			
	Review job description for HCW	Review job description from all schemes of services	X	X			
	operationalize of HRH information system for evidence-based decision making	Collect and collate all HRH data country wide and deposit in a central integrated HRH HRIS data server link to all existing data bases	X	X	X	X	X
	Develop schemes of service for unrecognized cadres	Identification of cadres without schemes of service	X		X		X

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Standardize training curricula for unrecognized cadres	identification of cadres without schemes of service	X		X		X
	Carry out regular audits of HRH management systems	Do regular audit of the HRH System	X	X	X	X	X
	Structured regular meetings with HCW unions	Develop quarterly schedules with union officials, COG and National Government	X	X	X	X	X
	Institutionalize frameworks to realign and harmonize personal emoluments and allowances across cadres and ensure the institutions/ counties abide by gazetted policies/ CBAs operationalize HRAC Council	Develop quarterly schedules with union officials, COG and National Government	X	X	X	X	X
(4) Training, capacity building and development of HCW	Increase investments to ensure adequate numbers of trained and recruited health specialists	Review the existing specialties and identify the gaps for training	X				
	Capacity building of Staff with appropriate skills	Do training needs assessment across the Country	X	X	X	X	X
	Train staff on management and leadership skills	Undertake audit on staff on leadership management	X	X	X	X	X
	Establish a multisector taskforce from education, academia, MOH, and professional bodies to review and recommend institutional capacity needs	Review the existing capacity of the training institutions	x	x	x		
	Review and implement training curricula	Review all the existing Curricula	X	X	X		
	Develop and implement guidelines for post graduate trainings for HCW	Develop the Country training post graduate guidelines	X	X	X		
	Develop online learning methods for competence development and skills	Review all the existing online training Curricula for improvement	X	X	X		
	Review and implement a continuous professional development (CPD) policy	Audit the available CPD	X	X	X		
	Finalize and implement the National Health Training Plan (NHTP)	Finalize National Health Training Plan	X	X	X		
(5) Community level HCW for UHC	Finalize and implement internship policy for HCW	Finalize the intern policy to include Diploma Holders	X	X	X		
	Ear mark training budget	Present Training Budget	X	X	X	X	X
	Establish functional community units	Audit the existing functional community units	X	X	X	X	X
	Provide tools of trade	Audit the existing tools for CHWS	X	X			

Health Care Financing

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
1. Resource Mobilization -To raise adequate resources to finance KEPH	Mandatory contribution, Voluntary contribution, Co-payment, Government tax, Donor funding, PPPs, project programme support. Assuring equity in resource utilization	fiscal space analysis	X				
		costing of KEPH		X	X		
		Advocacy and evidence generation for increased allocation both national and counties	X	X	X	X	X
		Advocacy and evidence generation for increased allocation-counties	X	X	X	X	X
		Update Resource Allocation Criteria (RAC)		X			
		Advocacy to review the PFMA 2012 to ensure ringfencing of County Health Funds (FIF)	X	X	X		
2. Risk Pooling - to ensure maximum availability and fairness in resource utilization	Fragmented pooling of resources and multiplicity of schemes creates waste, inequity and inefficiencies; weak regulation of the health insurance industry; low health insurance coverage; lack of social solidarity and fusion of tasks i.e. pooling and purchasing. The resource allocation criteria is limited to financing, budget	Carry out regular Benefit Incidence Analysis (BIA)	X			X	
		clear definition of EPH	X	X			
		set up a mechanism for harmonization and standardization of the benefits package	X	X			
		set up a mechanism for harmonization and standardization of the benefits package		X	X		
		to clearly define the essential package for health					
		put in place a comprehensive framework for monitoring and appraising performance of purchasing entities;					
		Put in place a comprehensive national accreditation framework informed by the position paper	X	X			
		defining a legal framework and regulations guiding establishment of PCNs and SHIFs	X				
Increase financial risk protection of HHS against impoverishment due to health expenditure	Advocacy for more funding from the government in order to reduce HH OOPs	Regular monitoring of presence, and effects of financial barriers in seeking care affecting the poor and vulnerable populations	X		X		X
		Establish a national health fund for the management of resources		X			
		advocacy for strengthened regulation of health insurance industry	X	X			
3. Purchase To enhance equity in the distribution of resources, increase efficiency, manage expenditure growth and promote quality in health service delivery	passive purchasing arrangements (input-based purchasing); overlap of financing agents purchaser and provider; improperly defined benefit package	Assessment to determine the admin costs vs revenue				X	

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
4. Strengthen the integration of finance with the planning processes at County level, taking account of specific health programmes, including annual emergency response, which have been devolved, to achieve UHC at County level	Following devolution 2013, national budgets have been devolved to the County level and the connection with the annual work planning process needs to be stronger to reflect a comprehensive health service, including the ability to financially resource annual emergency response	Develop integrated finance and work planning guidelines nationally for the Counties.	X	X			
		Capacity building of Counties in delivering the guidelines and ensuring costed budget lines for full maternal and child health services through sensitization, orientation and on the job guidance in using financial software	X	X	X	X	X
Strategic planning processes at the County level including all health service programmes which are costed and related to financial planning	Budget lines for all health services such as nutrition. Budget approval process based on annual workplan reflecting the county strategic plan	County support for planning and budgeting	X	X	X	X	X

Service Delivery

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
Strengthen the delivery of integrated, comprehensive, and high-quality community health services for all cohorts.	Revise/review the KEPH and the Community health strategy for Universal Health Coverage.	Conduct workshops to revise and validate the KEPH for community health.	X	X			
Strengthen community structures and systems for effective implementation of community health actions and services at all levels.	Establishment of CHUs, training of community health workforce. Provision/ supply of working tools. Conduct CHU functionality assessment. Develop/ review/revise community health policy documents/ guidelines.	Training workshops for 50,000 CHVs in all counties and 16996 CHEWs to be trained in KMTCs.	X	X	X	X	X
Strengthen data demand and information use at all levels.	Training on reporting and data use. Consistent and regular supply of reporting tools.	Procurement and printing of data collection and reporting tools.	X	X	X	X	X
Strengthen mechanisms for resource mobilization and management for sustainable implementation of community health services.	Stakeholder mapping/for a	Development of data base of community health stakeholders in the country.	X	X	X	X	X
Strengthen collaborative efforts in the provision of forensic medical Services	Solidify the divisions position as the current chair of the national technical working group on mass fatalities (15 government agencies)	TWG Meetings with multisectoral team including other relevant bilateral meetings	X	X	X	X	X
		Donation of equipment and relevant deployment and usage of the same	X	X	X	X	X

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Annual Meeting of Forensic Medicine: Current Status, Objectives, Strategies	three-day meeting with 3 lunches and 3 coffee breaks, bed and breakfast, venue hall required, IT support required	X	X	X	X	X
	organization of multi-agency drills	organize a mass fatality drill	X	X	X	X	X
	forensic human identification project for the unknown dead in Nairobi	multi-agency meeting	X	X	X	X	X
	Establishment of a National Institute of Forensic Medicine	Policy document for the set the national institute of forensic medicine ; set up of the national institute of forensic medicine	X	X	X	X	X
	Identify, train and equip forensic medical staff through advocacy and lobbying with the ministerial training committee to allocate funds for training in forensic pathology, forensic anthropology, forensic Odontology, forensic medicine, forensic nursing , forensic radiology	Lobby for training of medical staff in forensic post graduate programs through the ministerial training committee	X	X	X	X	X
	Identify other non-state capacity building stakeholders to support forensic medical capacity development	Identify partner to collaborate on capacity building	X	X	X	X	X
	Facilitate and sensitize/ train stakeholders in forensic medicine	identify partners	X	X	X	X	X
		provide sensitizations/ facilitate trainings	X	X	X	X	X
Strengthen Health system to be resilient to emergencies and health securities (health threats	Establish the Kenya National Public Health Institute	Development of the NPHI legal framework	X				
		Best Practice visits to existing NPHIs in Africa and other continents	X	X			
		Develop a financial plan, Human resource Plan and Infrastructure Plan	X	X	X		
		Construct and equip NPHI Premise				X	
	Implement the National Action Plan for Health Security	Finalize, Launch and disseminate the National Action Plan for Health Security	X				
	Develop a multi-sectoral multi-disciplinary coordination mechanism	Hold coordination meetings	X	X	X	X	X
	Establish community event-based surveillance systems in the country (National and county governments)	Develop guidelines and tools for EBS Develop training materials on EBS Develop reporting system for EBS from community to national level (Review the operability of mSOS and procure and maintain SMS gateway	X				
	Support national reference labs, 7 County referral labs to conduct testing of at least 5 priority diseases	Laboratory mapping for testing capacity of 10 priority diseases (IHR priority diseases)	X				

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Develop guidelines for case management for priority diseases, Infection prevention and IHR related hazards	Develop guidelines for case management for priority diseases, Infection prevention and IHR related hazards	X	X	X	X	X
	Training health workers on case management trainings for priority diseases, Infection prevention and IHR related hazards	Training health workers on case management trainings for priority diseases, Infection prevention and IHR related hazards	X	X	X	X	X
	Implement the Advanced Field Epidemiology level through the FELTP training platform	Implement the Advanced Field Epidemiology level through the FELTP training platform	X	X	X	X	X
	Develop and disseminate All Hazards Plans, Pandemic Influenza Plan, hazard specific plans, PHEOC framework and SOPs, Risk communication Plans, and framework for the procurement and prepositioning of emergency medical supplies	Develop and disseminate All Hazards Plans, Pandemic Influenza Plan, hazard specific plans, PHEOC framework and SOPs, Risk communication Plans, and framework for the procurement and prepositioning of emergency medical supplies	X	X	X	X	X
	Conduct vulnerability and risk analysis & mapping		X	X	X	X	X
	Establish National and county Public Health Emergency operation centers	Improve coordination and response to emergencies and other public health events	X	X	X	X	X
	Conduct simulation exercises and drills		X	X	X	X	X
	Identify, train and equip Public health Rapid response Teams (PHRRTs) and emergency Medical teams (EMTs) at national and county level	Establish Emergency Rapid Response Team/Emergency Public Health Response Team –Surge teams at all levels of government (National, Regional and County)	X	X	X	X	X
	Implement the Emergency Medical Care Policy 2018 – 2023	Launch Emergency Medical Care Policy 2018 – 2023	X	X	X	X	X
		Review norms and standards for HRH to include Emergency Medical Technicians (EMT)	X	X	X	X	
		Establish the Emergency Medical Fund	x	x	x	x	
	Scale up ambulance services within the counties	Assessment and mapping of public and private ambulance services in each county	x	x	x	x	
		Establish a national toll-free short-code ambulance access number that is zoned off to individual counties		x			
		Establish ambulance dispatch centers in each county	x	x	x	x	
		Establish a National Ambulance Command Centre linked to the County ambulance dispatch centers	x	x	x	x	x

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Set up Emergency departments appropriate for each level of hospital	Establish emergency departments in each county	x	x	x	x	
Strengthen Health system to be resilient to emergencies and health securities (health threats	Establish the Kenya National Public Health Institute	Development of the NPHI legal framework	X				
		Best Practice visits to existing NPHIs in Africa and other continents	X	X			
		Develop a financial plan, Human resource Plan and Infrastructure Plan	X	X	X		
		Construct and equip NPHI Premise				X	
	Implement the National Action Plan for Health Security	Finalize, Launch and disseminate the National Action Plan for Health Security	X				
		Monitoring and Evaluation	X	X	X	X	X
	Develop a multi-sectoral multi-disciplinary coordination mechanism	Hold coordination meetings	X	X	X	X	X
	Establish community event-based surveillance systems in the country (National and county governments)	Develop guidelines and tools for EBS Develop training materials on EBS Develop reporting system for EBS from community to national level (Review the operability of mSOS and procure and maintain SMS gateway	X	X	X	X	X
	Support national reference labs, 7 County referral labs to conduct testing of at least 5 priority diseases	Laboratory mapping for testing capacity of 10 priority diseases (IHR priority diseases)	X	X	X	X	X
	Develop guidelines for case management for priority diseases, Infection prevention and IHR related hazards	Strengthen capacities for clinicians in detection of priority diseases and hazards	X	X	X	X	X
	Training health workers on case management trainings for priority diseases, Infection prevention and IHR related hazards	Train workers on case management	X	X	X	X	X
	Implement the Advanced Field Epidemiology level through the FELTP training platform	Implement the Advanced Field Epidemiology level through the FELTP training platform	X	X	X	X	X
	Develop and disseminate All Hazards Plans, Pandemic Influenza Plan, hazard specific plans, PHEOC framework and SOPs, Risk communication Plans, and framework for the procurement and prepositioning of emergency medical supplies	Enhance capacities for preparedness	X	X	X	X	X
	Conduct vulnerability and risk analysis & mapping		X	X	X	X	X

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Establish National and county Public Health Emergency operation centers	Improve coordination and response to emergencies and other public health events	X	X	X	X	X
	Conduct simulation exercises and drills		X	X	X	X	X
	Identify, train and equip Public health Rapid response Teams (PHRRTs) and emergency Medical teams (EMTs) at national and county level	Establish Emergency Rapid Response Team/ Emergency Public Health Response Team –Surge teams at all levels of government (National, Regional and County)	X	X	X	X	X
	Implement the Emergency Medical Care Policy 2018 – 2023	Launch Emergency Medical Care Policy 2018 – 2023	X	X	X	X	X
		Review norms and standards for HRH to include Emergency Medical Technicians (EMT)	X	X	X	X	X
		Establish the Emergency Medical Fund	x	x	x	x	x
	Scale up ambulance services within the counties	Assessment and mapping of public and private ambulance services in each county	x	x	x	x	
		Establish a national toll-free short-code ambulance access number that is zoned off to individual counties	x	x	x	x	x
		Establish ambulance dispatch centers in each county	x	x	x	x	
		Establish a National Ambulance Command Centre linked to the County ambulance dispatch centers	x	x	x	x	x
	Set up Emergency departments appropriate for each level of hospital	Establish emergency departments in each county	x	x	x	x	
1. To improve on preventive and promotive health care services	Revise print and disseminate the guidelines.	Conduct workshops to revise and validate the guidelines	x	x			
	Capacity build HCWs on the MNH trainings [EmONC, MPDSR and FANC].	Training workshops for the MNH TOTs trainings [EmONC, MPDRS & FANC etc...].	x	x	x	x	x
	Establish MNH centers of excellence for capacity building, mentorship and bench-marking	Building new and renovating and equipping AYFS centers to enable provision of AYSRH	x	x	x	x	x
	Mentorship and technical support to counties on quality MNH services	Conduct Mentorship and Technical support visits/ meetings	x	x	x	x	x
	Capacity build HCWs on FP commodities supply chain management	Training workshops for the FP commodities supply chain management.	x	x	x	x	x
	Procure of FP commodities and consumables	Procurement of FP commodities and supplies	x	x	x	x	x
	Capacity build FP providers on modern contraceptives to increase uptake of services	Training workshops for modern FP commodities	x	x	x	x	x
	Enhance advocacy of modern FP methods	Carry out advocacy meetings on FP commodities to increase uptake	x	x	x	x	x

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Establishment of AYFS centers in level 4 and 5 facilities in the counties	Establishing functional AYFS centers at level 4 & 5	x	x	x	x	x
	Capacity build HCWs on ASRH services	Training workshops on ASRH	x	x	x	x	x
	Development of IEC materials for AYSRH	conduct workshops to develop AYSRH IEC materials	x		x		
	capacity build HCWs on SGBV health services	Training workshops on SGBV health services	x	x	x	x	x
	Availing the SGBV tools e.g. Registers at the health facilities	Printing of SGBV tools	x	x	x	x	x
	Procurement PF PRC packs	Procurement and delivery of PRC packs to health facilities	x	x			

Health Infrastructure

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
Improve access to appropriate medical devices towards UHC	Lobby for budgetary increase for Procure and maintain the medical equipment	1. Conduct a country wide assessment on medical equipment as per the service delivery areas and norms and standards		X	X	X	X
		2. Identify the gaps and write a proposal for funding		X	X	X	X
		2. Conduct a meeting to identify the gaps		X	X	X	X
		3. Lobby national and county for budgetary increase		X	X	X	X
	assess cost effectiveness financing strategies	2. Advocacy meetings with parliamentarians		X	X	X	X
	Apply evidence-based health technology innovative programmes	1. Establish a TWG for innovative program		X	X	X	X
	Encourage research and production of prototype health technology	1. Stakeholders forum		X	X	X	X
	Collaboration with stakeholders to reduce cost of medical devices and technology	1. Stakeholders forum		X	X	X	X
	Engage all stakeholders in procurement of health technology	1. Stakeholders forum		X	X	X	X
	Ensure optimal use of available medical devices	1. Conduct a Medical Devices Utilization Assessment		X	X	X	X
	Monitor adherence of equipment placement as per norms and standards for Health Infrastructure	1. Conduct an assessment of available devices		X	X	X	X
Streamline the management of medical devices in the health sector	HTA plan developed	1. Develop and implement HTA plan for the sector		X	X	X	X
	HTM guidelines developed	1. Develop and implement standards/guidelines on all elements of HTM		X	X	X	X
	Procurement and budget plan	1. Budgeting and procurement of kits for tools and testing equipment	X	X	X		
	Capacity build on budget development	1. Budgeting for maintenance of medical devices	X	X	X		

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
Strengthen regulation of medical devices	Establishment of the Kenya food and drug authority (KFDA)	1. Lobbying for parliamentary approval	X	X	X		
	Develop the Bio-Medical Engineers Bill	1. Lobbying for parliamentary approval	X	X	X		
	Finalize Kenya Medical Device management policy and guidelines	1. Finalize the Medical Devices Policy and guidelines		X	X		
Develop and strengthen human resource capacity in management of medical devices	Awareness creation undertaken	1. Awareness creation management of medical devices		X	X		
	Train on medical device management	1. Develop and implement a medical devices training program		X	X		
	Develop continuous professional development mechanisms on emerging technologies	1. Develop and implement a training module on emerging technologies		X	X		
	Recruit and deploy medical engineering personnel as per norms and standards	Human resource group to take into consideration		X	X		
Promote safe use of medical devices	Advocacy of safe use of medical devices	1. Awareness creation safe use of medical devices	X	X	X	X	X
	li) Create standards operating procedures on safe use of medical devices.	1. Create SoPs on safe use of medical devices		X	X		
	i)Create the standards for calibration ii) Advocacy on the standards. iii) Enforcement of the standards	1. Develop standards for calibration		X	X		
	i) Create an integrated tool for reporting the adverse incidents. li) Train on the use of the tool. Iii)Periodically monitor and act on the incidents	1. Develop an integrated tool for reporting adverse incidents		X	X		
	Incorporate continuous change management	1. Incorporate continuous change management		X	X	X	X
	Conduct research on current technologies	1. Research thematic group to incorporate research on current technologies		X	X		
Expand access to ICT infrastructure in health facilities.	i) Assess the ICT infrastructure in the health sector ii) Develop an ICT investment plan iii) Develop ICT - Health policy addressing interoperability	1. ICT Infrastructure plan developed and deployed	X	X	X	X	X
	i) Participatory inclusion of all ICT stakeholders ii) Advocate for joint planning between agencies	1. Stakeholders forum	X	X	X	X	X
	i) Advocacy of the developed ICT guidelines ii) Ensure compliance of the developed guidelines	1. Develop Policy/guidelines for donor supported ICT program		X	X		
	ii)Improve existing ICT infrastructure	1. Ensure optimal ICT infrastructure in all essential areas		X	X		

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	i) Assess the gaps in funding in ICT infrastructure ii) Develop resource proposals for ICT infrastructure iii) Allocate the funding for procurement of ICT infrastructure	1. Mobilize funding for ICT Infrastructure	X	X	X	X	X
	v) Capacity building of stakeholders	1. Awareness creation on ICT needs and application	X	X	X	X	X
Improve access to appropriate transport towards UHC	i) Assessment of compliance to existing ambulance standards ii) Advocacy of existing standards on ambulance ii)Develop a health sector transport policy to cover ambulances (Ground, Air & Water) and utilities vehicles	1. Improve access to appropriate transport towards UHC	X	X	X	X	X
	i) Conduct a needs assessment ii) Mobilize and allocate resources	1. Resource mobilization for ambulances and utility	X	X	X	X	X
	i) Operationalize the fleet management plan ii)Set up a command center for ambulance ii) Set up a digital fleet management tool iv) Capacity building of human resources in the fleet management sector	1. Develop an efficient fleet management system		X	X		
Enhance the maintenance and repairs of transport services in the health sector	i) Conduct a needs assessment ii) Mobilize and allocate resources	1. Ensure regular maintenance and repair services of motor vehicles	X	X	X	X	X
	i) Operationalize the maintenance and repair schedule	1. Develop a maintenance schedule	X	X	X	X	X
Expand access to appropriate physical infrastructure towards UHC	i) Build capacity in implementation of 'Norms and standards for health infrastructure' guidelines ii) Enforce adherence to norms and standards iii) Conduct an assessment of the built infrastructure	1. Strengthening the implementation of health infrastructure norms & standards		X	X		
	i) Participatory inclusion of all Infrastructure stakeholders	1. Strengthening multisectoral approach in the management of physical infrastructure		X	X		
	i) Conduct a needs assessment per facility level ii) Mobilize and allocate resources	1. Improving accessibility and coverage of health services within the 5 km radius		X	X		
	i) Conduct an assessment ii) Upgrade the built environment according to the standards	1. Improve accessibility of the built environment for use by all		X	X		
Strengthen compliance with standards for physical infrastructure	Ii) Advocacy on adherence to regulations	1. Enhancing mechanisms to enforce health infrastructure and standards	X	X	X	X	X

Strategic Objectives (s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
Streamline the management of physical infrastructure.	i) Implement a maintenance schedule for the buildings ii) Conduct a needs assessment iii) Mobilize resources for building preventive maintenance	1.mobilise for resources and allocate funds for building maintenance.	X	X	X	X	X
	i) Develop and implement preventive maintenance schedule	1. Develop a maintenance schedule for buildings		X	X		
	i) Develop and implement capacity buildings programs ii) Recruit and deploy maintenance personnel	1. Capacity building of staff who carry out physical infrastructure maintenance		X	X		
Strengthen security and safety of the physical infrastructure.	i) Acquisition of land title deeds all public health facilities.	1. Ensure all public health facilities have title deeds		X	X		
	lii)installation of security components (CCTV, alarm, fencing, lighting etc.)	1. Improve security in all health facility		X	X		
	iv) Advocate and promote implementation of fire and safety Policy; signage	1. Improve the health providers and clients' safe environment	X	X	X	X	X

Health Products and Technologies

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
To expand current capacity for access to health care commodities	Propose amendments of PFM act to National Assembly/ propose a legislation on reign fencing monies for health at the county levels	Propose amendments of PFM act to National Assembly to ring fence monies for HPTs	X				
		KEMSA budget requirements for essential drugs and commodities	X	X	X	X	X
	Capitalization of KEMSA on NCDs Medicines and Technologies	Lobby for funding for NCDs	X	X	X	X	X
	Lobby for Counties to deposit commodity funds through KEMSA	Review of KEMSA ACT to require Counties to deposit at least 75% of their HPT funds to KEMSA	X				
	Establish an intergovernmental HPT coordination office to lead on matters forecasting and quantification, supply and supply management Install a software to be used in the National Quantification. Train county and Referral managers on quantification	Use of quantification software for proper planning for commodities	X	X	X	X	X
To assure quality of all health commodities	Nothing ties the counties to follow the EMMS list when procuring. Current clinical guidelines are outdated	Lobby for the enactment of the HPT act with a clause enforcing the use of KEML&KEMSL (in the National Assembly& in the Senate)	X	X	X	X	X

Strategic Objectives(s)	Proposed Intervention(s)	Activities	2018/19	2019/20	2020/21	2021/22	2022/23
	Lack of trained personnel in some areas to manage the equipment	Recruit and train personnel on use of MES equipment	X	X	X	X	X
	Kenya does not have standards for track and trace of HPT	Develop policy on track and trace of HPTs	X	X			
	1.Sensitization of health workers on pharmacovigilance	Conduct training of health workers on pharmacovigilance	X	X	X	X	X
	2.strengthen pharmacovigilance reporting and monitoring systems	Quality audits	X	X	X	X	X
	1. Recruit Health Supply Chain specialists 2.Recruit pharmacists and pharma technologists , nurses , clinical officers on rational use	Develop recruitment plan	X		X		X
5. To reduce procurement cost of health products and technology while promoting local manufacturers	Conduct biannual supervision and monitoring on rational use of drugs and commodities and stock management	biannual supervision	X	X	X	X	X
	1. Assessment of storage facilities 2. Rehabilitation of storage facilities and equipment	Conduct assessment and rehabilitation of health storage facilities	X	X	X	X	X
	1. Establish a functional TWG with membership from ICT Ministry 2. develop a National HPT Supply Chain strategy 3.Develop a Functional End to End HPT Supply chain information System	Establish a TWG on HPT with membership from ICT Ministry Develop and disseminate the national HPT strategy Develop a functional end to end supply chain information system	X	X	X	X	X
1.Longterm partnership with ICT ministry (Infrastructure team to give us the solution) 2.Harmonisation LMIS/Inventory management systems across programmes and counties 3. establish a national LMIS	1. develop a joint costing plan for annual increment for Public health programme for GOK funding 2. Advocate for increased GOK funding from less than 2% to 10% by 2023 at treasury during MTEF process	Develop roadmap for GOK funding of public health programmes	X	X			
	2. the Maternal/child health commodities(13 lifesaving commodities) at the last mile.	Lobby for increased GOK funding for public health programs	X	X	X	X	X
2. There is increased focus on Maternal & Neonatal Health globally. To reduce maternal & Child mortality.	1.Preferences & Incentives not given to in country manufacturers to enable them to compete with imports	Conduct sensitization to procurement entities	X	X	X	X	X
		Lobby for increased incentives for local manufacturers	X	X	X	X	X
	1.Irrational commodity use, poor stock management 2.Insecurity of commodities	Develop and review guidelines	X	X			

Health information System including M&E

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
Objective 1: Strengthen the integrated, comprehensive and quality health information generation and use in a timely manner	1.1 Strengthen HR capacity at all levels in the use of HIS systems (e.g. DHIS2/KMHFL/ EHRs/KHO) to provide complete timely and accurate information	Jointly conduct capacity assessment (HR, skills, infrastructure) for health information to build upon existing assessments	X				
			X				
		Jointly develop and implement an HR development plan with the counties based on the norms and standards		X			
		Review of HR plan progress	X	X	X	X	X
	1.2 Institutionalize Guidelines and Standards for Interoperability of health information systems	Implementation of the Kenya Health Enterprise Architecture.	X	X	X	X	X
		Operationalize the Certification framework including EMR interoperability	X	X	X	X	X
	1.3 To ensure that there are adequate data collection tools at service delivery points	Map and quantify data collection tools needed	X	X	X	X	X
		Print and avail data collection tools	X	X	X	X	X
	1.4 Increase investments in ICT infrastructure and eHealth Development	Digitalize data collection and reporting	X	X	X	X	X
		Establish 14 eHubs	X		X		X
	1.5 Adhere to the structure for 2-yearly review of data collection tools in the HIS policy	Review and revise data collection tools in accordance to HIS policy	X	X	X	X	X
		Establish roadmap and conduct systematic roll-out of revised tools	X	X	X	X	X
	1.6 Design, develop and avail comprehensive data collection tools in line with emerging data requirements in the new strategic plan including UHC	Develop tools and indicators to capture service delivery data including data from the use of improved infrastructure	X	X			
		Reference indicator implementation matrix to the indicator manual		X			X
		Harmonize DHIS indicators to the indicator manual		X	X	X	X
	1.7 Harmonize population estimates used in the health sector	Develop a guideline based on the Kenya Statistics Act to ensure the use of population data from KNBS at all levels			X	X	
	1.8 Develop a coordinated plan for implementing health related surveys (timing, inclusion of cross-cutting indicators)	Develop a 5-year plan for surveys based on stipulated timing	X	X			
		Develop a minimum requirement for data elements for all surveys	X	X			
	1.9 In collaboration with CRD, establish/ scale up IT based system for collecting information on Vital Events (multisectoral approach)	Jointly review / develop harmonized vital events data collection tools	X	X	X	X	X

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
		Digitize jointly reviewed / developed vital events data collection tools		X	X	X	
		Develop integrated CRVSS including geospatial mapping, health communications, and platforms for self-monitoring and reporting at all levels			X	X	
		Capacity build Community Strategy to collect and conduct verbal autopsy			X	X	
		costed plan on Verbal Autopsy				X	
		Map verbal autopsy data from multiple agencies and integrated into CRVSS.				X	
						X	
		Quarterly mortality Surveillance at all level	X	X	X	X	X
		Develop Guideline for notification of vital event through Community unit by CHEWS				X	
	1.10 Jointly establish a unique health identifier to facilitate management of health information	Engage with CRD and other stakeholders in developing a unique identifier	X	X			
	1.12 Develop a capacity building strategy for health information	Jointly conduct capacity assessment (HR, skills, infrastructure) for health information to build upon existing assessments	X	X	X	X	X
		Plan and perform strengthening of skills on health information based on the assessment findings	X	X	X	X	X
		Jointly develop and implement an HR development plan with the counties based on the norms and standards	X	X	X	X	X
Objective 2: Strengthen the system for health information validation	2.1 Establish a comprehensive health information data validation mechanism	Develop a comprehensive health information data validation framework (paper and digital)		X			
		Disseminate the comprehensive health information data validation framework		X			
		Conduct biennial national data quality audit		X			X
		Advocate with the ICC for adequate funding for DQA at national and county levels	X	X	X	X	X
	Revise and disseminate the DQA protocol (include digital systems and feedback mechanism)	Revise the DQA protocol		X			
		Disseminate the DQA protocol		X			

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
		Work with the counties to ensure implementation of the DQA protocol		X			
		Develop and carry out an assessment of the implementation and institutionalization of the DQA protocol		X			
		Perform DQA			X		
		Use ICC for better coordination of sector activities and support to DQA	X	X	X	X	X
		Conduct quarterly NHIS system cleaning	X	X	X	X	X
		Conduct quarterly data review meetings	X	X	X	X	X
	Mainstream medical certification into training institution	Conduct join meeting with academia on Medical certification and use of iCD.		X			X
	create knowledge development and sharing on Vital Statistics	Conduct scientific conference and Symposium on Statistical Development to promote integrated mortality statistics development			X		
	Capacity Building on Medical Certification and ICD Use	Capacity build on medical certification and use of iCD		X			
	Automated use of ICD to improve underlying cause of death	Automate ICD based on decision tables			X		
Objective 3: Enhanced capacity of analysis at all levels to use health information to make informed decisions	3.1 Strengthen institutional capacity for comprehensive analysis	Develop a competency-based capacity strengthening plan	X	X			
		Implement the competency-based capacity strengthening plan	X	X	X	X	X
		Availing of Analytical tools and infrastructure	X				X
		Develop an analysis framework, and guidelines	X				X
		Institutionalize/implement the data analytics framework for integrated performance management and accountability for health	X	X	X	X	X
		Carry out systematic reviews on priority health topics		X			X
		Enhance the capacity for optimal use of DHIS		X			X
		Pull data from DHIS2 for advanced analysis with other analytical tools		X			X
		Actualize the interoperability framework.		X			X

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
Objective 4: Strengthen the systems for predictable and targeted dissemination of information to all stakeholders	4.1 Establish a system for regular/periodic and targeted production and dissemination of health information products (Dissemination plan)	Identify target audience for health information products and document their needs.	X	X	X	X	X
		Develop health information products for targeted audiences (e.g. dashboards and quarterly bulletins for monitoring UHC, SDGs, and annual statistical report, State of Health in Kenya etc.)	X	X	X	X	X
		Publish Annual County and National Health Statistical Abstracts	X	X	X	X	X
		Conduct periodic health information dissemination forums (quarterly, biannual, annual review meetings/ forums)	X	X	X	X	X
		Implement the Kenya Health Observatory for assuring comprehensive availability of Health Information	X			X	
		Maintenance	X			X	
		Enhanced use of the system, Advocate for upgrade	X			X	
		Public portal to access some health information	X			X	
	Institutionalize and finance performance measurements and review guidelines at all levels	Perform biannual performance review meetings at national level	X	X	X	X	X
		Perform quarterly performance review meetings at sub-county and county level	X	X	X	X	X
Objective 5: Improve the use of health information to guide policies, planning, programme management	5.1 Institutionalize learning and adapting practices including inter county learning	Implementing best practices and lessons learned in data analysis and use	X	X	X	X	X
		Conduct annual M&E best practice conference	X	X	X	X	X
	5.2 Streamline use of data in policy development, monitoring and evaluation.	Operationalize the guidelines for evidence use in policy making	X	X	X	X	X
		Develop a framework to monitor and evaluate policies		X			
		Make inventory of relevant guidelines and policies and develop a strategy to monitor implementation of these policies	X	X	X	X	X
	5.3 Institutionalize performance measurements and review guidelines at all levels	Conduct Quarterly, biannual and annual reviews	X	X	X	X	X

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
		Develop a tool: To track data utilization by decision makers Track implementation of recommendations from key health fora e.g. annual health summit, Kenya Health Forum, devolution conference, county stakeholder meetings etc. for improved governance and leadership	X	X	X	X	X
		Advocate for incorporation of data use as a standing agenda in periodic meetings at all levels	X	X	X	X	X
		Develop user friendly dashboards including mobile based dashboards, of high-level health indicators	X	X	X	X	X
Objective 6: Improve governance of health information systems	6.1 Strengthen HIS coordination and organizational structures at all levels (e.g. TWGs, ICC etc.)	Establish, operationalize and support HIS-M&E coordination structures at all levels	X	X	X	X	X
		Mentoring of SAGAs on HIS-M&E Institutionalization	X	X	X	X	X
		Mentoring of counties on HIS-M&E Institutionalization	X	X	X	X	X
		Establish/strengthen National and County HIS/M&E organizational structures	X	X	X	X	X
		HIS-ICC meetings	X	X	X	X	X
		Develop guidelines on information generation and sharing to targeted audience and use			X		
	6.2 Strengthen legal and regulatory systems to support HIS-M&E functions	Develop Health Information System legal framework aligned to the Health Policy and general health law and review HIS Policy in line with the Health Act		X			
		Revise, launch and monitor implementation of the Health Information Policy			X		
		Develop a policy for mandatory allocation of finances to strengthening of HIS-M&E by all actors			X		
		Develop a minimum dataset for reporting for all health institution cf. the Health Act			X		
		Develop framework to govern management and storage of health data including personal identifiable information (HIS ACT, policy)		X			
		Leverage on PPP to mobilize resources through collaboration for the implementation of HIS		X			

Strategic Objectives	Strategy/Intervention	Activities/Sub Activity	2018/19	2019/20	2020/21	2021/22	2022/23
		Develop HIS-M&E investment case		X			
		Hosting of NHIS2	X	X	X	X	X
Objective 7: Strengthen and manage the evolution of key HIS systems	7.1 Strengthen HIS Systems and integrate parallel information system into one national reporting system by implementation of the Kenya Health Enterprise Architecture that links all health systems countrywide	Advocate for allocation of adequate funding for NHIS hosting on the national budget	X	X	X	X	X
		Implement Kenya Health Enterprise Architecture	X	X	X	X	X
		Conduct assessment of the utilization of the different health information systems	X	X	X	X	X
		Promote the use of under-utilized health information systems (CHIS, IHRIS, EMR/ERSs)	X	X	X	X	X

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