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Ministry of Health

Kenya Integrated Community Case Management Implementation Framework and Plan of Action

2022 – 2027

Community Health Services
"Afya Yetu, Jukumu Letu"

Division of Neonatal & Child Health
Ministry of Health

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Foreword

Kenya's Vision 2030 identifies the health sector as a critical enabler for achievement of the national development goals. Good health is essential to human welfare and to sustained economic and social development. The Kenya Health Sector Strategic Plan has identified the achievement of Universal Health Coverage (UHC) as the main health sector priority. The current economic downturn resulting from the global pandemic and rising health-care costs. These costs could be attributed to the double burden of communicable and non-communicable conditions and reducing pattern of partner financing who require to modify their financing systems to hasten achievement of UHC. Achieving this requires evidence to inform health financing policy choices that will withstand the effects of the emerging and re-emerging health issues.

The Integrated Community Case Management (iCCM) is an evidence informed strategy which builds the capacity of the community health volunteers (CHVs) to assess, treat or refer sick children under 5 years of age at the household/ community level. As per the WHO/UNICEF joint statement of 2012, well trained and supervised Community Health Workers can provide quality health services at the community level. In Kenya, iCCM implementation is guided by key documents which include; The iCCM Implementation framework and plan of action, the training guidelines and tools. The Ministry of Health through the division of neonatal and child health with the support of WHO/UNICEF and other partners has implemented the iCCM strategy since 2013. The iCCM implementation framework presents a platform for acceleration of prevention, control and management of childhood diarrhoea, malaria, pneumonia and malnutrition, and neonatal causes of death at the community level, thus contributing to the attainment of the SDG 3 target 3.2 by reducing significantly mortality attributed to the five conditions. This framework is anchored on the Community Health Policy (MOH 2020 – 2030), Neonatal Child and Adolescent Health Policy (MOH 2018), Community Health Strategy (MOH, 2020 - 2025) and Neonatal and Child Health Strategic Plan (MOH 2022 – 2027).

The Integrated Community Case Management (iCCM) Implementation framework and plan of action (2022 - 2027) is anchored on various policies and strategies. Among them; Kenya Health Policy (2014-2030), Kenya Health Sector Strategic Plan (2018 - 2023), Kenya Primary Health Care Strategic Framework (2019 -2024), Kenya Community Health Policy (2020 - 2030), Kenya Community Health Strategy (2020 - 2025), Newborn Child and Adolescent Health (NCAH) Policy (2018), Newborn and Child Health Strategic Plan (2022 - 2027).

The iCCM implementation framework and plan of action addresses key areas including policy and coordination, case management, commodity logistics, supervision and quality assurance, Advocacy, Communication and Social Mobilization (ACSM), and monitoring and evaluation. The framework also aims to strengthen the health system, building upon the facility-level Integrated Management of Newborn and Childhood Illness (IMNCI).

The Ministry of Health urges all stakeholders to utilize this iCCM implementation framework and plan of action for resource mobilization and scale up of the iCCM strategy. Within this document is a robust Monitoring and Evaluation framework to track the progress of implementation in a responsive and accountable manner to the health needs of the Kenyan child.

It is my sincere hope that implementation of this five-year implementation framework and plan of action, alongside other strategies covered in the Community Health Strategy, will contribute to the reduction of under five morbidity and mortality in Kenya.

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

Preface

The integrated Community Case management (iCCM) focuses on enhancing timely access to quality health services at the household and community level. The goal of iCCM is to contribute to the reduction of childhood morbidity and mortality through provision of quality community case management for children with malaria, pneumonia, diarrhoea & malnutrition, and identification and referral of newborns who have danger sign(s) to a health facility.

iCCM is implemented through a functional Community Health Unit (CHU) which is the level 1 of health service delivery structure in Kenya and serves a defined geographical area covering a population of approximately 5,000 people. Each unit is assigned one Community Health Assistant (CHA) and 10 Community Health Volunteers (CHVs) who provide promotive, preventive, basic curative and rehabilitative services. The CHVs undertake a rigorous iCCM training for 7 days after they have undergone training on the community health basic training manuals. This ensures that there is provision of quality iCCM services. The CHUs are linked to a health facility from where CHVs obtain iCCM commodities and clinical mentorship.

The development of this 2nd edition of the iCCM Implementation Framework and Plan of Action (2022 – 2027) is a culmination of efforts of various stakeholders. It has involved a review of the first iCCM Framework and Plan of Action (2013-2018) and the Monitoring and Evaluation Plan (2013 – 2018). The process has entailed face to face and virtual workshops with various stakeholders in the community, Counties, Ministry of Health and partners. The review process has helped to further refine the framework and has combined the two documents (iCCM Implementation framework and Plan of Action, and the M&E plan) into one document for ease of implementation and tracking.

This document will provide guidance to National, County Governments and partners in strengthening and scale up of iCCM services.

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Acknowledgements

The compilation of this Implementation Framework and Plan of Action for Integrated Community Case Management (iCCM) would not have been possible without the support, hard work and commitment of a large number of individuals and institutions. The review process was coordinated by Lydia Karimurio who led the iCCM secretariate under the guidance of Dr. Caroline Mwangi, Head, Division of Neonatal and Child Health, Dr. Issak M. Bashir, Head, Department of Family Health, and Dr. Julius Ogato, Head, Directorate of Health Care Services. The secretariat played an important role in ensuring successful completion of the framework. The development benefited greatly from the valuable contributions of various individuals and organizations. Their active participation in each step from inception, through development to finalization is highly appreciated.

We are grateful to the Counties of Kitui, Muranga, Narok, Nairobi Metropolitan Services (NMS), Kisumu, Busia, Siaya, Turkana, Nakuru and Isiolo for the collaboration and support during the development process. The counties mentioned were purposively selected to represent all the 47 Counties.

We would like to acknowledge the collaboration of various organizations who provided both technical and financial support; special mention goes to WHO, UNICEF, Save the Children, USAID, Living Goods, Global Fund Facility, Catholic Medical Mission Board and Nutrition International for their very valuable contribution in this process. The Ministry of Health looks forward to further collaboration during the implementation and evaluation phases.

Finally, I wish to thank all those who participated in the review and development process of this Implementation Framework and Plan of Action, for the Integrated Community Case Management (iCCM), whose diverse contributions made it a success.

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Abbreviations

ACT	Artemisinin-based combination therapy
CHA	Community Health Assistant
CHC	Community Health Committee
CHEW	Community Health Extension Worker
CHIS	Community Health Information System
CHMT	County Health Management Team
CHO	Community Health Officer
CHU	Community Health Unit
CHV	Community Health Volunteer
DCH	Division of Community Health
DHP	Division of Health Promotion
DNCH	Division of Neonatal and Child Health
DNMCP	Division of National Malaria Control Program
DND	Division of Nutrition and diatetics
e-CHIS	Electronic Community Health Information System
FGD	Focus Group Discussion
GoK	Government of Kenya
HMIS	Health Management Information System
HRIO	Health Records Information Officer
iCCM	Integrated Community Case Management
IMNCI	Integrated Management of Newborn and Childhood Illness
IMR	Infant Mortality Rate
KAP	Knowledge Attitudes and Practices
KDHS	Kenya Demographic and Health Survey
KEMRI	Kenya Medical Research Institute
KEMSA	Kenya Medical Supply Authority
KHIS	Kenya Health Information System
KHPC	Kenya Housing and Population Census
KHSSP	Kenya Health Sector Strategic Plan
KNBS	Kenya National Bureau of Statistics
LLIN	Long Lasting Insecticide Net
LMIS	Logistics Management Information System
M&E	Monitoring and Evaluation
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MIS	Malaria Indicator Survey
MoH	Ministry of Health
mRDT	Malaria Rapid Diagnostic Tests
MUAC	Mid Upper Arm Circumference
NHIF	National Health Insurance Fund
ORS	Oral Rehydration Salt
PHC	Primary Health Care
RMNCAH	Reproductive Maternal Newborn Child and Adolescent Health
SDG	Sustainable Development Goals
TWG	Technical Working Group
UHC	Universal Health Coverage
UNICEF	United Nations Children's Fund
WHO	World Health Organization

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1. Chapter 1: Introduction

1. 1 Background

The Government of Kenya is committed to the achievement of national, regional and international targets, including the Sustainable Development Goals (SDGs), to improve maternal, newborn and child health and development indicators. Globally, most deaths in children are caused by preventable and easily treated diseases, namely pneumonia (15%), diarrhoea (8%) and malaria (4%), and newborn related conditions (pre-term birth complications 35%, and intrapartum related complications 24%) (WHO, UNICEF, WORLD BANK, 2017). Almost half of deaths in children under-five are linked to under-nutrition (WHO 2021).

The health system in Kenya experiences challenges that are known to counter efforts towards the control and management of common childhood illnesses. Some of these challenges have been demonstrated during the COVID-19 pandemic since 2020 in which children missed some of the critical routine services such as vaccination and other health services. Many children in Kenya continue to die unnecessarily due to poor access to recommended treatment particularly for pneumonia, diarrhea, malaria, malnutrition and newborn causes of death.

Kenya is committed to the realization of the SDGs. The SDGs 3 aims to promote healthy lives and well-being for all. The SDG 3 target 3.2 aims to end preventable deaths of newborns and children under 5 years of age by 2030. All countries aim to reduce newborn mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births.

Kenya adopted the IMCI strategy in 2000 as introduced by WHO/UNICEF. In 2018 the neonatal component was added to the Integrated Management of Childhood Illnesses (IMCI) strategy to improve quality of care for newborns thus the name changed to Integrated Management of Neonatal and Childhood Illnesses (IMNCI). Kenya has been implementing Integrated Community Case Management (iCCM) since the year 2013. This was after World Health Organization (WHO) and United Nations Children's Fund (UNICEF) recommended community level management of leading childhood illnesses like, pneumonia, diarrhoea, malaria, and newborn conditions. In a WHO and UNICEF joint statement of 2012, it was recommended that suitably trained, supervised, and equipped Community Health Workers (CHWs) can deliver iCCM for pneumonia, malaria and diarrhoea to children in hard-to-reach areas[1].

Under 5 mortality rate (U5MR) in Kenya has decreased from 102 deaths per 1,000 live births in 1990 to 43 deaths per 1,000 live births in 2019. This translates to about 63,657 children under five deaths in Kenya, and out of this, prematurity complications caused 13,214 deaths (21%), Birth asphyxia 8,960 (14%), Acute Respiratory Illnesses

1 WHO/UNICEF. WHO/UNICEF JOINT STATEMENT Integrated Community Case Management (iCCM) [Internet]. 2012. Available from: https://www.who.int/maternal_child_adolescent/documents/statement_child_services_access_whounicef.pdf

(ARI)/pneumonia 8,675 (14%), Diarrhoea diseases 4,683 (7%) and malaria 3,367 (5%)[2]. Neonatal deaths account for approximately 60% of the infant mortality in Kenya, as per the Kenya Demographic Health Survey (KDHS 2014). Appropriate management of diarrhea, malaria, and pneumonia is one of the most cost-effective interventions towards the reduction of the global burden of disease (Black et al, 2010). There exist evidence-based high-impact interventions that can ensure a visible impact on reduction of childhood mortality. Treatment of fast breathing Pneumonia using Amoxicillin Dispersible Tablet (DT) is one of the high impact interventions that the country is rolling out. Addressing newborn deaths through timely identification within the two days of birth and referral by trained Community Health Volunteers (CHVs) is a cost-effective high impact practice (Baqui AH et al, 2009).

Kenya needs to reduce the under-five mortality rate to 25 deaths per 1,000 live births if SDG 3 target 3.2 is to be achieved by 2030. To achieve this, a minimum annual mortality reduction rate of 4.4% is needed.

WHO/UNICEF recommended that countries adopt enabling policies to authorize trained non-medical health workers including CHWs to administer oral antibiotics and artemisinin-based combination therapies (ACT), oral rehydration salts (ORS)/Zinc as part of the government's commitment to achieving millennium development goals for child health. To actualize this, the Ministry of Health through the Division of Child Health and in collaboration with Partners developed the National framework and plan of action for implementation of iCCM in Kenya 2013 -2018 for children below five years of age[3] which has been in operation since 2013. This is the national implementation framework that provides guidance for management of childhood pneumonia, diarrhoea, malaria, neonatal conditions and malnutrition at the community level.

There was need to review the iCCM framework 2013-2018, due to availability of new evidence and recommendation to support the treatment of uncomplicated fast breathing pneumonia at the community level using Amoxicillin DT[4], end of the framework's timeline, and to align it to the current policies and strategies in the health sector.

In view of the foregoing, the Ministry of Health through the Division of Neonatal and Child Health (DNCH) in collaboration with partners, initiated a consultative review process with the aim of having a framework that will provide strategic direction to guide iCCM implementation for the year 2022 - 2027 towards achievement of SDG 3 target 3.2 of ending preventable deaths of newborns and children under 5 years of age.

The iCCM framework is organized in eight chapters. Chapter 1 provides background information on the adoption of the framework, Chapter 2 provides a situational analysis of the key indicators, chapter 3 highlights the evidence on the implementation progress of iCCM globally and in Kenya, chapters 4, 5 and 6 provide strategic direction for this framework and implementation matrix while chapter seven described the resource requirement to implement the envisioned and activities. The last chapter provides details of the monitoring and evaluation plan for this framework.

2 WHO Maternal, newborn, child and adolescent health and ageing: Data portal accessed on 21st May 2022 at https://platform.who.int/data/maternal-newborn-child-adolescent-ageing/indicator-explorer-new/mca/number-of-under-five-deaths---by-cause

3 Ministry of Health. A NATIONAL FRAMEWORK AND PLAN OF ACTION FOR IMPLEMENTATION OF INTEGRATED COMMUNITY CASE MANAGEMENT (iCCM) IN KENYA, 2013-2018 [Internet]. Available from: https://uasingishureproductivehealth.files.wordpress.com/2015/08/iccm_natnl-framework_final-oct-11.pdf

4 RECOMMENDATIONS ON COMMUNITY CASE MANAGEMENT OF NON-SEVERE PNEUMONIA FOR CHILDREN UNDER FIVE YEARS BY THE PANEL OF EXPERTS November 2019.

2. Chapter 2: Situational analysis

2.1 Social Economic Status

Kenya is divided administratively into 47 counties. As per 2019 population census projection, Kenya's population was 49.4 million with about 12.4 million households of an average 4 persons each, of whom 15.2% (7.5 million) are children below age 5 years. Majority of the population (68%) resides in rural areas (Kenya National Bureau of Statistics (KNBS Economic Survey; May 2022).

The country's gross domestic product (GDP) has increased nine-fold from an estimated as KES 1,539.3 billion in 2011 to an estimated KES 12,098.2 billion in 2022 (KNBS Economic Survey; May 2022). This in essence has led to elevation of the Kenyan economy from a low-income country to a low-middle income country. As per the World Bank estimates of 2020, about 33.1% of the population lives below the poverty line, below $1.90 per day. This is an improvement from 46.8% in 2006[5] though still shows a third of the population might have economic barriers to accessing health facilities for services when they need them.

There has been an increase in the government allocation to health as a proportion of total government expenditure from 6.3% in 2012/13 to 11.6% in 2021/22[6] which is an indication that health continues to be a priority in the country in line with the Abuja declaration of 2001. However, analysis have shown that for the country to finance Universal Health Coverage, it should allocate at least 5% of her GDP to health (WHO 2010, Path to universal health coverage).

There has been an increase in the number of health facilities to about 12,832 of which about 46% are government owned. At the same time there are a total of 6,209 fully functional community health units (CHUs) and another 2,241 units which are semi functional (Master CHU List)[7]. Functionality here in defined as per the community health strategy (CHUs reporting monthly, having community dialogue and action days). As per the Community health strategy, the target is to have 9,513 CHUs being fully functional to reach the 12.2 million households equivalent to 47.6 million people[8]. There is therefore need to activate the semi-functional & non-functional CHUs and establish additional 2,000 CHUs to achieve this target. Additionally, MOH aims at a reporting rate of at least 80% in all the CHUs. There has been an increase in the reporting rates by the functional (fully and semi-functional) CHUs from 71% in 2017 to 81% in 2021[9]

5 Poverty & Equity Brief Kenya Sub-Saharan Africa April 2020; available at www.worldbank.org/poverty
6 Health Sector Report accessed from the National Treasury www.treasury.go.ke/budget-books
7 http://kmhfl.health.go.ke/#/chul_filter accessed May 2022
8 Kenya Community Health Strategy 2020-2025.
9 KHIS https://hiskenya.org/dhis-web-pivot/ accessed May 2022

Kenya is committed to the realization of the SDGs that were adopted by the United Nations in 2015. The SDG 3 aims to promote healthy lives and well-being for all. The SDG 3 (target 3.2) aims to end preventable deaths of newborns and children under 5 years of age by 2030, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-five mortality to at least as low as 25 per 1,000 live births. There is therefore need to accelerate scale up of low cost, high impact interventions towards reduction of the under-five morbidity and mortality, with a keen focus at the community level that shall be anchored on Primary Health Care and Universal Health Coverage (UHC).

2.2 Status of Child Health in Kenya

Mortality amongst children below 5 years declined between the 2003 and 2014 KDHS surveys. Neonatal mortality has however had the slowest rate of decline. Infant mortality rate has reduced from 77 to 35.5 deaths per 1,000 live births, as per the Kenya Housing and Population Census of 2019 (KNBS), and under-5 mortality has reduced from 115 to 52 deaths per 1,000 live births as shown in Figure 2.1.

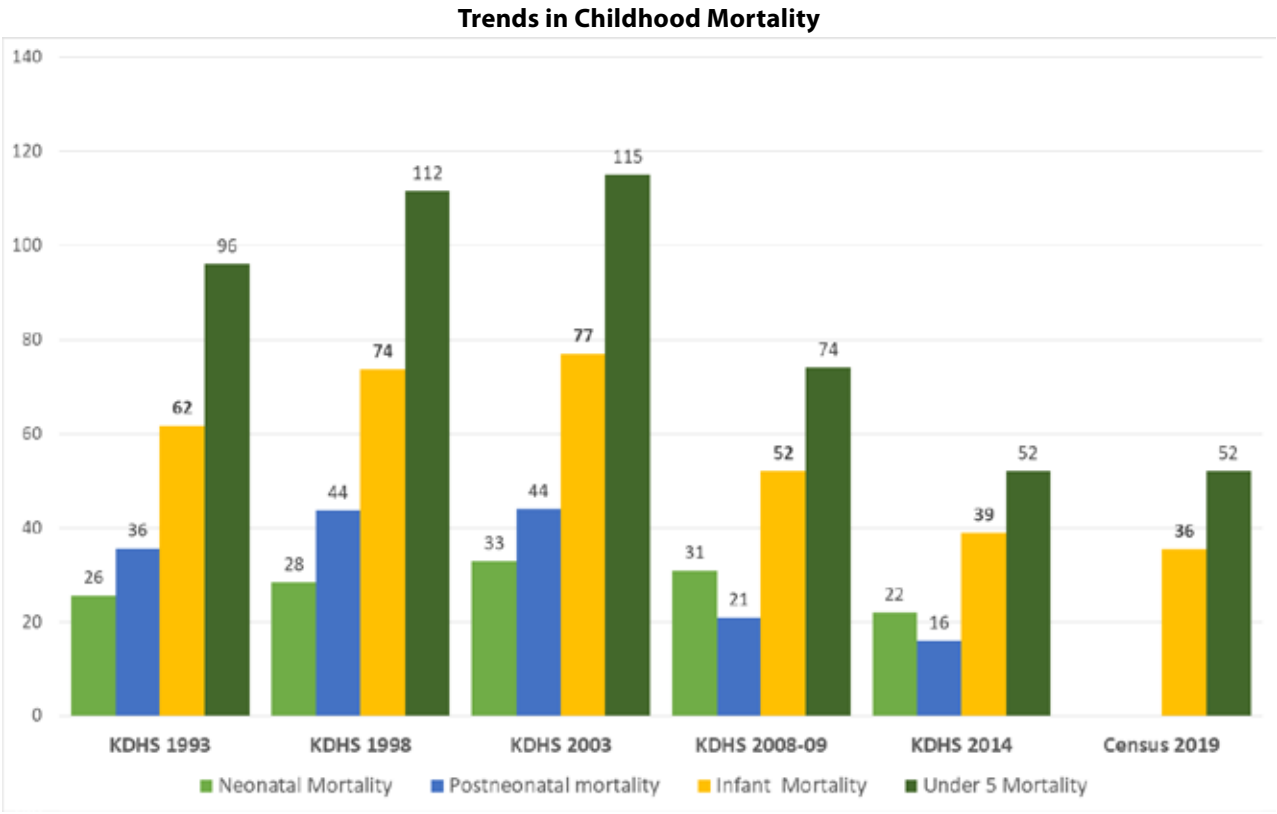

Figure 2.1 Trends in infant mortality from 1993 to 2019

Despite concerted efforts by government and stakeholders, the country did not achieve the Millennium Development Goal 4 (MDG 4) target of 32 deaths per 1,000 live births in children under age 5 years. The 2014 KDHS also showed regional differences: Nyanza and Nairobi regions had the highest under-5-years mortality rates of 82 per 1,000 live births and 72 per 1,000 live births, respectively, while Central region had the lowest under-5 years mortality rates of 42 per 1,000 live births.

Globally, the leading causes of under the estimated 5.3 million under 5 deaths in 2019 were preterm birth complications (18%), acute respiratory infections/pneumonia (14%), intrapartum-related complications such as birth asphyxia (12%), diarrhoea (9%), congenital anomalies (8%), and malaria (8%). Similarly, in Kenya the leading causes of the 63,657 under 5 deaths, were; Prematurity complications (21%) ARI/ Pneumonia (14%), Birth asphyxia (14%), diarrhoea (7%), congenital anomalies (5%) as shown in Figure 2.2.[10] More than half of these early child deaths are preventable or can be treated with high impact interventions such as; immunization, adequate nutrition, safe water & food and appropriate care by a trained health care provider.

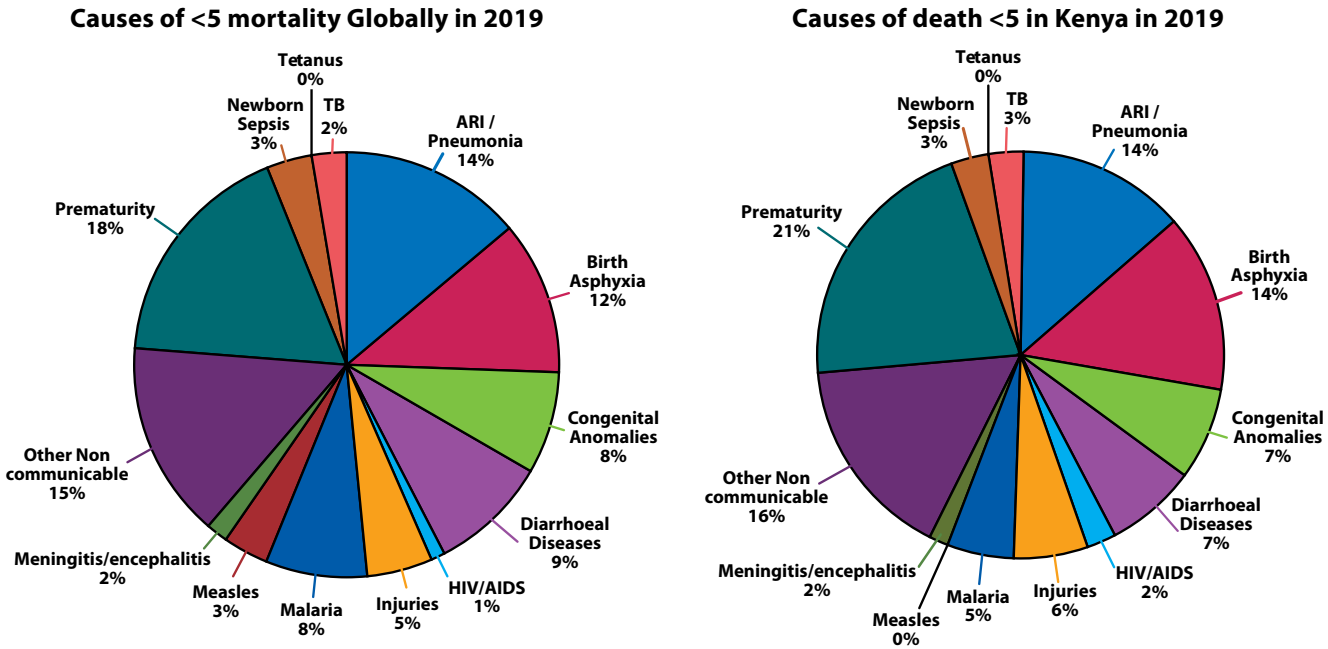

Figure 2.2 Causes of mortality in under five in 2019 (Globally and in Kenya)

The following section describes the changes in the leading causes of morbidity and mortality in children from 2014 to 2021 based on the KDHS 2014 data and routine data from the Kenya Health Information System (KHIS) covering the period January 2021 to December 2021. It was noted that there were differential reporting rates by counties during this time ranging from as low as 2.3% in Laikipia to as high as 100% in Nairobi. These may have an effect on the data presented in the graphs for the various disease conditions.

Diarrheal diseases

As per the KDHS 2014, about 15 percent of children under the age of five had experienced diarrhoea with 2% being bloody diarrhoea. The Western, Coastal and Nyanza regions had the highest prevalence of diarrhoea (18-20%) while North Eastern had the lowest (8%).

Across the country, there has been an increase in the number of diarrhoea cases identified and reported in the KHIS, from 60,000 in 2016 to over 120,000 in 2021 as shown in Figure 2.3.

Over 90% of these identified cases were treated with ORS/Zinc at the community level although 20 counties reported a higher number of children with diarrhoea treated with ORS/Zinc than the number of cases identified. This could be a pointer to data quality issues in the KHIS.

10 WHO Maternal, newborn, child and adolescent health and ageing: Data portal accessed on 21st May 2022 at https://platform.who.int/data/maternal-newborn-child-adolescent-ageing/indicator-explorer-new/mca/number-of-under-five-deaths---by-cause

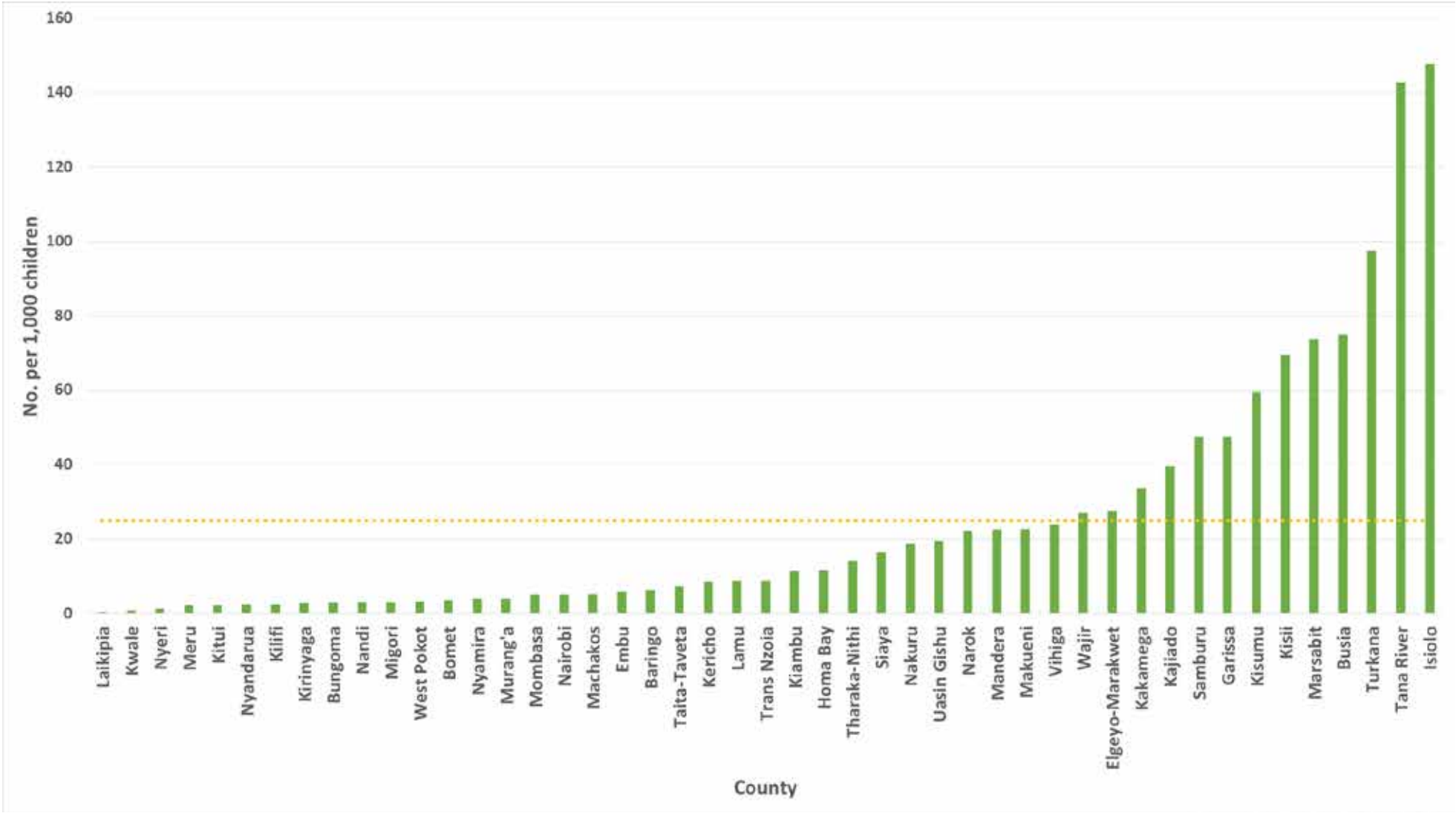

Figure 2.3 Number of diarrhoea cases per 1,000 children

The Y axis represents the cases per 1,000 children (Calculated as cases/population {Census 2019} x 1,000.

Acute Respiratory infections

As per the 2014 KDHS[11], two thirds of caregivers of children with ARI symptoms (cough, shortness of breath or other respiratory difficulties [these are some of pneumonia symptoms]) sought services at a health facility, this is an increase from the 2008-09 KDHS, where 56% of care givers sought treatment or advice from a health provider or a health facility. Also, antibiotics were used to treat children with ARI symptoms more in 2014 than in 2008-09 (53% and 50%, respectively) and was more common in the Nyanza region (62%) and least common in the North Eastern Region (34%).

There is still a third of the children who will not get to a health facility or a health care worker, KDHS 2014. These children would probably seek care at the community level. In 2021, there were about 66,000 cases of fast breathing reported in KHIS. These varied across the counties as shown in Figure 2.4.

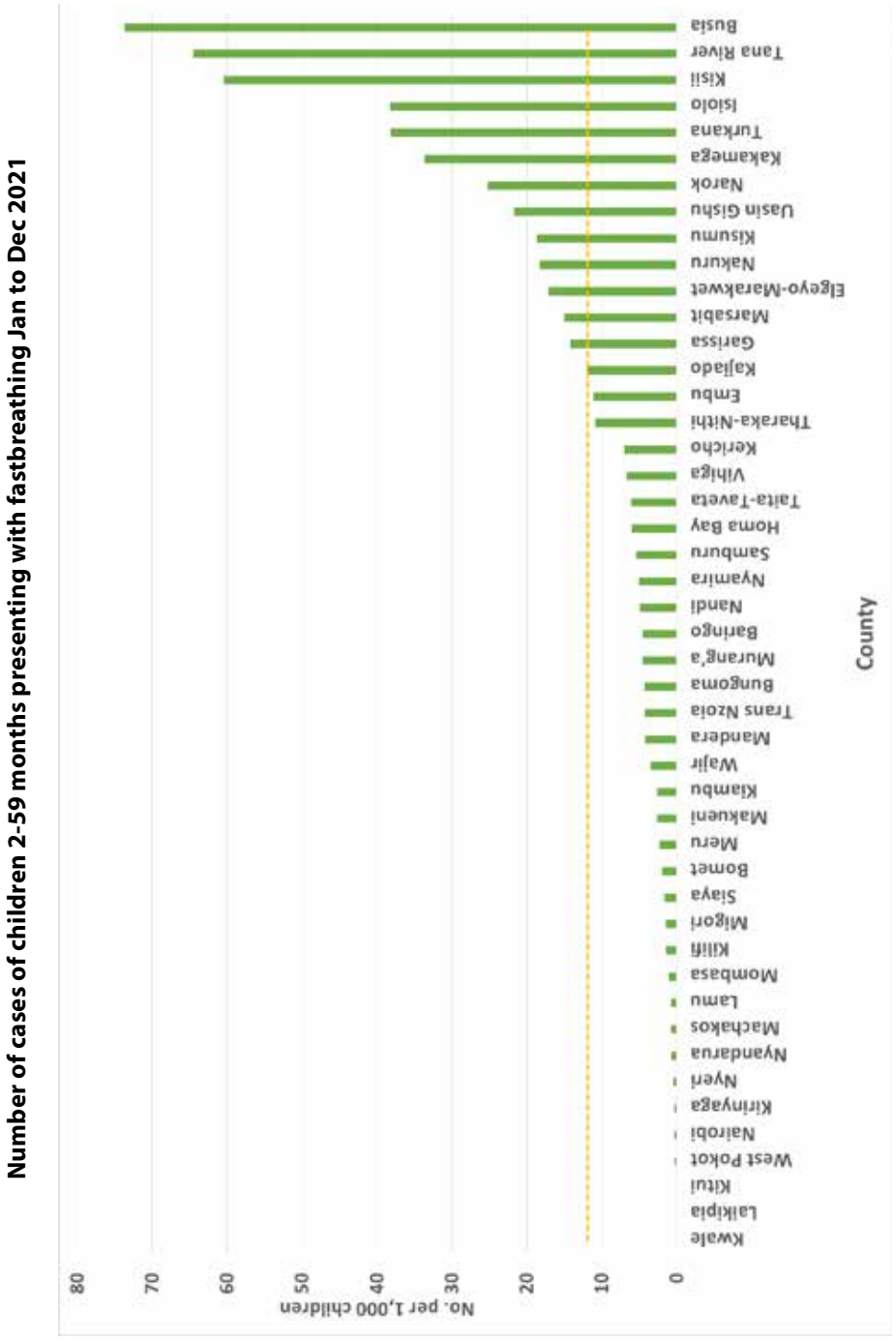

Figure 2.4 Children presenting with fast breathing per 1,000 children

The Y axis represents the cases per 1,000 children (Calculated as cases/population {Census 2019} x 1,000.

11 Kenya National Bureau of Statistics. (2015). Kenya Demographic and Health Survey 2014; accessed at https://dhsprogram.com/publications/publication-fr308-dhs-final-reports.cfm

The most recent estimations by the WHO Maternal Child Epidemiology Estimation (WHO-MCEE) group suggest that pneumonia was responsible for 15% of under five deaths in Kenya in 2017[12].

Febrile infections including malaria

As per the KDHS 2014, almost one-quarter of the children had fever in the two weeks preceding the survey, ranging from 17% in infants less than six months to 30% in children aged six months to two years. The prevalence of fever was highest in Nyanza and Western (37% and 36% respectively). Treatment was sought in 63% of the cases (an increase from the 49% reported in the 2008 survey). One quarter of the children with fever were treated presumptively with antimalarial medicine, with another 40% treated with antibiotics. There has been a reduction in the prevalence of fever within two weeks of the survey to about 17% of the children (ranging from 10% in the low-risk areas to 29% in the lake endemic zone) as per the Malaria Indicator Survey of 2020[13]. There was, however, a reduction in the proportion of those who sought malaria services at a health facility from 72% in 2015 to 64% in 2020. In general, there has been a decline in mortality rate due to malaria from 7% in 2000 to 4% in 2017 as per the estimates of WHO-MCEE group[14]. As per the data on the KHIS, across the country, between January and December 2021 there were almost 500,000 cases of fever of less than seven days identified in the community of whom 60% had a malaria Rapid Diagnostic Test (mRDT) done as required by the guidelines with a positivity rate of over 70%. Over 95% of the positive mRDT cases were given Artemisinin Combination Therapy (ACT) for malaria as shown in Figure 2.5. This shows that there are still some gaps in testing and treatment probably due to lack of the mRDTs and/or the ACTs in the community level.

Fever and its management in children 2-59 months in Kenya between January and December 2021

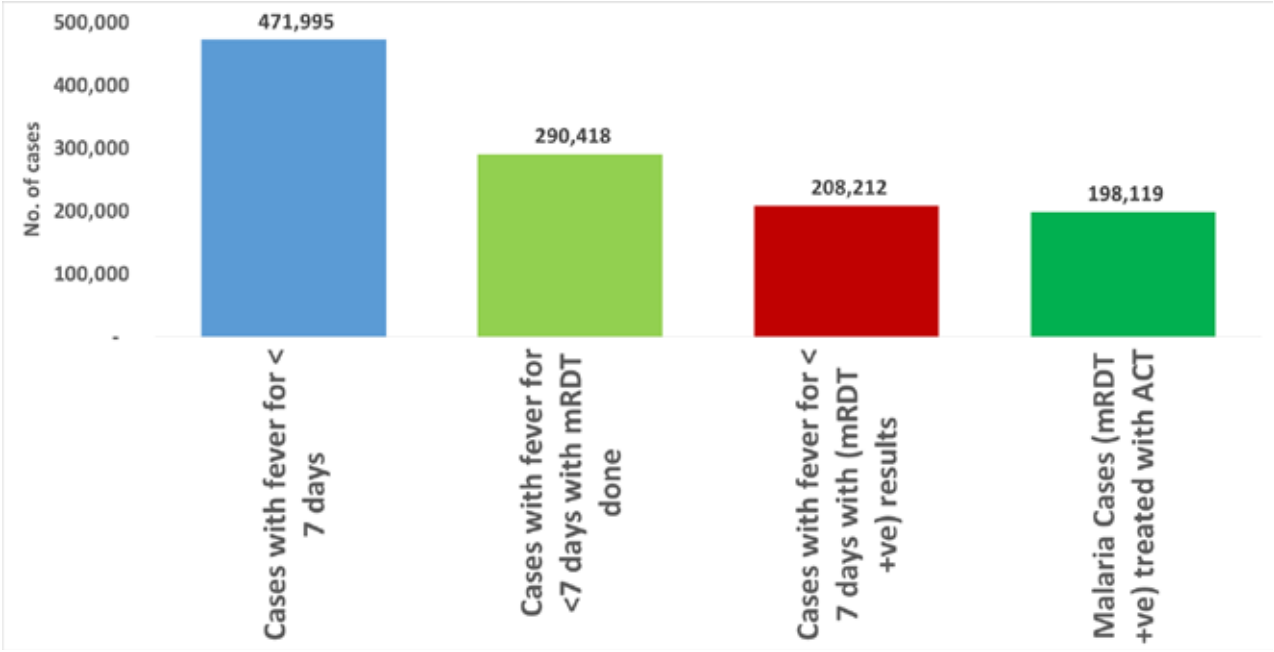

Figure 2.5 Community level identification and management of children with fever

12 https://data.unicef.org/topic/child-health/pneumonia/ accessed November 2021
13 Division of National Malaria Programme (DNMP) [Kenya] and ICF. 2021. Kenya Malaria Indicator Survey 2020. Nairobi, Kenya and Rockville, Maryland, USA: DNMP and ICF
14 https://data.unicef.org/topic/child-health/malaria/ accessed in November 2021

Malnutrition

As per the 2014 KDHS, 26% of the total under-5 population are suffering from chronic malnutrition (stunting or low height-for-age). This is an improvement from 35% reported in the 2008-2009 KDHS. The prevalence is highest in the Coast, Eastern, and Rift Valley regions. While acute malnutrition (wasting or low weight-for-height) among children under 5 years is relatively low nationally (4%)[15], it reaches almost 14% in North Eastern region. UNICEF's State of the World's Children Report 2019 states that only 11% of newborns in Kenya are underweight but also notes that one-third (34%) of newborns are not weighed[16]. Inadequate infant and young child feeding practices contribute to high rates of malnutrition in the country. Exclusive breastfeeding practices increased significantly, from 32% percent in 2008 to 61% in 2014, but 42% of infants 4–5 months of age were still exclusively breastfeeding and 62% of mothers' initiated breastfeeding within an hour of birth.

The high prevalence of adolescent pregnancy has serious consequences because, relative to older mothers, adolescent girls are more likely to be malnourished and have a low-birth-weight baby who is more likely to become malnourished, and be at increased risk of illness and death than those born to older mothers. The risk of stunting is 33% higher among first-born children of girls under 18 years in Sub-Saharan Africa, and as such, early motherhood is a key driver of malnutrition[17].

Malnutrition is an underlying cause of almost half of child morbidity and mortality. In the community, malnutrition is identified by checking for swelling on both feet and use of a Mid-Upper Arm Circumference (MUAC) tape. If yellow on MUAC tape (11.5cm – 12.4cm), the child (6-59 months) is classified as being Moderately Acute Malnourished, while if red (below 11.5cm) on MUAC tape the child is classified as being Severely Acute Malnourished[18]. These two scenarios require the child to be referred to a health facility. As per the latest data from KHIS, accessed in May 2022, about 40,385 cases were classified as severely malnourished and 128,545 as moderately malnourished across the country in 2021. Turkana County reported the highest numbers of both severe malnutrition and moderate malnutrition while Laikipia reported the lowest as shown in Table 2.1.

Table 2.1 Distribution of malnutrition cases across the country between Jan-Dec 2021

S.No	County	Red on MUAC	Yellow on MUAC
1	Laikipia	5	4
2	Kirinyaga	27	31
3	Bomet	35	68
4	Embu	35	322
5	Kitui	43	898
6	Nyandarua	48	96
7	Elgeyo-Marakwet	62	801
8	West Pokot	82	329
9	Kisii	91	216
10	Nyamira	93	179

15 UNICEF; Situation Analysis of Children and Women in Kenya 2017; UNICEF, 2018, Nairobi, Kenya.

16 United Nations Children's Fund (UNICEF), World Health Organization. UNICEF-WHO Low birthweight estimates: Levels and trends 2000–2015. Geneva: World Health Organization; 2019

17 UNICEF 2018; Situation Analysis of Children and Women in Kenya 2017; UNICEF, 2018, Nairobi, Kenya

18 World Health Organization (WHO). Guideline: Updates on the Management of Severe Acute Malnutrition in Infants and Children. WHO; 2013. Accessed May 2022. Available at https://www.who.int/publications/i/item/9789241506328

11	Meru	100	222
12	Lamu	120	189
13	Baringo	121	402
14	Murang'a	128	260
15	Nyeri	138	76
16	Siaya	146	1,141
17	Busia	153	389
18	Tharaka-Nithi	155	445
19	Kwale	168	682
20	Kericho	169	317
21	Isiolo	172	2,745
22	Migori	204	601
23	Homa Bay	255	552
24	Taita-Taveta	279	2,188
25	Vihiga	296	383
26	Uasin Gishu	299	1,493
27	Kisumu	320	805
28	Samburu	438	3,084
29	Nakuru	509	4,088
30	Makueni	539	1,080
31	Kiambu	562	2,333
32	Bungoma	571	2,400
33	Mombasa	617	1,455
34	Nandi	657	485
35	Trans Nzoia	698	2,114
36	Kajiado	805	2,323
37	Tana River	885	3,805
38	Kakamega	956	2,455
39	Kilifi	999	3,178
40	Wajir	1,340	4,304
41	Narok	1,445	1,834
42	Nairobi	1,475	11,024
43	Mandera	1,492	3,220
44	Machakos	1,721	1,823
45	Marsabit	2,503	10,097
46	Garissa	2,809	6,159
47	Turkana	15,620	45,450
48	**Kenya**	**40,385**	**128,545**

*Absolute numbers as reported in KHIS. (Laikipia's reporting rate was 2.3%)

iCCM Implementation in Kenya

Kenya adopted the IMCI strategy in 2000 as introduced by WHO/UNICEF. In 2018 the neonatal component was added to the IMCI strategy to improve quality of care for newborns thus the name changed to IMNCI. The strategy provides a holistic approach to management of children under 5 years of age focusing on the main causes of morbidity and mortality (pneumonia, diarrhoea, malaria, malnutrition and neonatal conditions). The strategy has three components namely; improving case management skills of health care providers, improving health systems to provide quality care, improving family and community health practices for child health, growth and development. iCCM is one of the strategies for improving family and community health practices for child health, growth and development. The iCCM strategy builds the capacity of CHVs to provide services at the households/community level.

In 2011, WHO/UNICEF finalized development of the iCCM guidelines and introduced them to countries for adoption and implementation. In 2011, the Ministry of Health Kenya adopted the iCCM guidelines. Through the Division of Child Health in collaboration with partners, the Ministry undertook the adaptation of the iCCM guidelines of September 2013 and development of the iCCM framework and M&E plan 2013 – 2018. The Ministry of Health in collaboration with WHO/UNICEF and other Partners has since 2013 been implementing iCCM. iCCM is a proven evidence-based strategy that trains, equips, and supports CHVs to deliver high-impact treatment interventions to children under five years of age at the household/community level. The strategy presents a platform for acceleration of control and management of childhood diarrhoea, malaria, pneumonia, malnutrition, and neonatal causes of death at the community level.

iCCM implementation in Kenya is guided by key documents which include the National implementation framework and Plan of Action 2013 to 2018, the M&E plan 2013 to 2018, iCCM training guidelines and tools. These documents have since been revised to be in tandem with current evidence-based policies including the policy change on management of uncomplicated pneumonia at the community level using amoxicillin DT.

By December 2021 the iCCM strategy had been introduced to 32 Counties (Homa Bay, Siaya, Turkana, Murang'a, Embu, West Pokot, Kitui, Kilifi, Nyandarua, Kakamega, Taita Taveta, Narok, Vihiga, Makueni, Baringo, Tana River, Isiolo, Marsabit, Trans Nzoia, Kisii, Wajir, Nairobi, Migori, Mombasa, Lamu, Kisumu, Bomet, Nakuru, Kajiado, Busia, Meru and Kericho) which were at different levels of implementation. However, there is a big gap in coverage both in the implementing and non-implementing Counties mainly due to Limited funding and inadequate commodities supply. In view of the foregoing, there is an urgent need to mobilize resources for scale up implementation in both implementing and non-implementing Counties to achieve the target of 100% Counties implementing and a coverage of at least 60% in each County.

Despite availability of global and regional evidence, the Ministry of Health adopted the iCCM strategy but did not include the use of antibiotics for treatment of pneumonia at the community level. The ministry indicated the need to generate in-country evidence for pneumonia management at the community level to address the gap that existed in terms of the literacy levels among the CHVs and the difference in the duration of training. MOH with support of WHO/UNICEF, commissioned a study in Homa-Bay County with a focus on antibiotic use for pneumonia treatment in 2014[19]. Based on these findings in regional and global evidence, the Neonatal and child health panel of experts recommended treatment of uncomplicated pneumonia using Amoxicillin DT at the community level in Kenya in 2019.

19 Angwa LM, Ouma C, Okoth P, Nyamai R, Kamau NG, Mutai K, Onono MA. Acceptability, adherence, and clinical outcomes, of amoxicillin dispersible tablets versus oral suspension in treatment of children aged 2-59 Months with pneumonia, Kenya: A cluster randomized controlled trial. Heliyon. 2020 Apr 14;6(4):e03786. doi: 10.1016/j.heliyon.2020.e03786. PMID: 32322742; PMCID: PMC7160563.

Following the recommendations by the panel of experts, the ministry has undertaken review of the iCCM Framework and M&E plan, training guidelines and tools (Sick Child Recording Form, Newborn Danger Signs Checklist and Commodity tracking tool) which will guide the implementation of iCCM in 2022-2027.

Legal and Regulatory Framework supporting iCCM

iCCM is anchored on various health policies such as; the Kenya Health Policy 2014 to 2030, Kenya Health Sector Strategic Plan 2018–2023, Kenya Primary Health Care Strategic Framework (2019 – 2024), The Kenya Community Health Policy 2020-2030, Kenya Community Health Strategy 2020-2025, The Newborn, Child and Adolescent Health (NCAH) Policy – 2018, Newborn and Child Health Strategic Plan 2022 to 2027. iCCM is implemented in a functional community health structure.

2.3 iCCM gap Analysis[20]

iCCM is yet to attract optimal attention and prioritization in healthcare financing and budgetary processes from the National and County governments. There is need to document the gaps in iCCM in the Country, looking through the health system building blocks and informed by an assessment in a select number of counties. This section describes the findings from the situational analysis in three counties (Siaya, Nairobi and Isiolo) with a financial gap analysis focus in three counties (Kisumu, Busia and Turkana) in 2021.

2.3.1 Leadership, governance, and commitment

There are national policies that guide the implementation of iCCM. However, national documents that guide resource allocation in the health sector (Kenya Health Financing Strategy 2020-2030, Universal Health Coverage - Benefits Package. 2018, Universal Health Coverage Roadmap 2020, Health Sector Medium Term Expenditure Framework Report (MTEF) for the period up to 2021, made no explicit provision for iCCM, though there are provisions for community health in general. The sampled counties were noted to have dedicated focal point persons who were tasked with coordination among partners and stakeholders in the implementation of iCCM and community health services. Each of the three counties had functional technical working groups to ensure coordination and accountability among stakeholders. There were established mechanisms at the national level for cascading of national policies to the counties. However, these were reported to be under-resourced with resultant delay in translation of policy to practice; only in 32 out of 47 Counties are implementing iCCM but with a low coverage within the counties.

Lack of legal framework is a major hindrance to County allocation of resources for community health services and by extension iCCM. Some Counties have Community Health Services Act in place, paving way for institutionalization of community health services. Other Counties are at various stages of enacting the Bills. These Acts have paved way for remuneration of CHVs in the Counties that have enacted them. The Kenya Community Health Policy 2020 – 2030 recommends counties to pay them stipends and compensate them for their time in any other way that would motivate them to continue to provide this important Health service to the respective communities.

2.3.2 Health information system

Initiatives to reform paper-based community health information system through digitalization have been initiated in

20 Kiragu et al November 2021 'Integrated Community Case Management (iCCM) in Kenya: Gap Analysis and Investment Case

various Counties though in a fragmented manner. These systems are not yet integrated into the national reporting system KHIS resulting in limited access to iCCM data among stakeholders beyond the county level.

There is low quality data (incomplete and inaccurate data) partly due to inadequate capacity, inadequate data collection & reporting tools. The Ministry of Health through the Division of Community Health in collaboration with partners, has undertaken the digitization of the CHIS tools through the electronic community health information system (e-CHIS).

2.3.3 Service delivery

All children identified as having diarrhoea, should be treated with ORS & Zinc. However over 30 counties did not achieve the target. There is however a data quality problem or skills gap given that thirteen counties did report over 100% of the children with diarrhoea were given ORS & Zinc in 2021 as shown in Figure 2.7.

Number of diarrhoea cases treated with Zinc/ORS in 2-59 months children (Jan - Dec 2021)

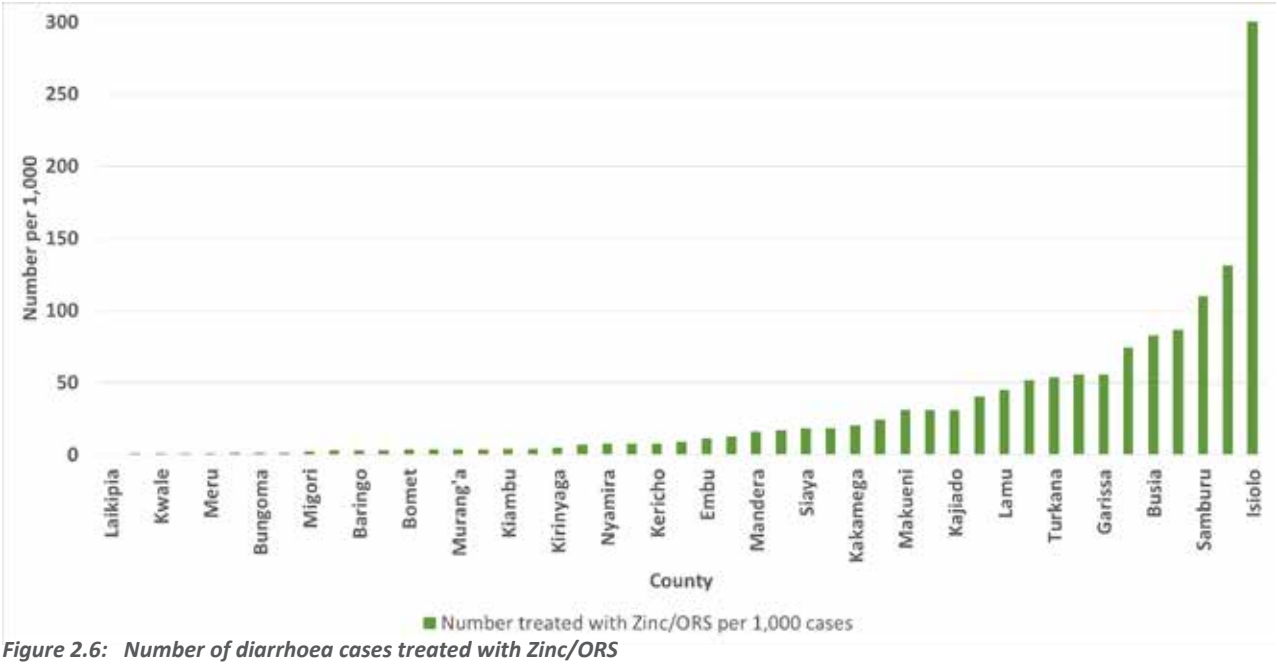

Figure 2.6: Number of diarrhoea cases treated with Zinc/ORS

The Y axis represents the cases per 1,000 children (Calculated as cases/population {Census 2019} x 1,000.

iCCM Programme coverage

The sampled counties had not attained the iCCM programme coverage target of 80% as envisaged in the national implementation framework and plan of action. There was a huge disparity between the number of CHVs trained on iCCM and iCCM services provision ranging from 1% to 68%. This scenario is as seen in other countries in Sub Saharan Africa (SSA), the actual service coverage has been low (as low as 2.7%), due to both demand and supply side factor[21]. This may imply that very little time for the CHVs and their supervisors is dedicated to iCCM. The funds allocated for demand creation including community engagement were generally low across all sampled counties. Strong advocacy is required to ensure that iCCM is a priority at county, provider (CHV), and community levels.

Quality of iCCM services

Supportive supervision and monitoring of quality for community health services including iCCM is limited by

21 UNICEF. Under-Five Mortality [Internet]. UNICEF Data: Monitoring the situation of children and women. 2020 [Accessed in Nov 2021]. Available from: https://data.unicef.org/topic/child-survival/under-five-mortality

inadequate staff and where available not all are trained on iCCM. The high attrition rates among trained CHVs also poses a challenge to continued quality improvement through mentorship and supervision. Inadequate resources to conduct regular quality audits for community-based health services is also a major challenge.

Community-facility linkage

There are inadequate referral linkages between CHVs and link health facilities.

2.3.4 Human resources for health

The number of CHVs in each of the sampled counties were less than the desired to adequately cover the population as defined by the Kenya Community Health Strategy of 2020 - 2025. Kisumu had the lowest coverage by CHVs at 12.3%. By the year 2021 Busia had recruited approximately 85% of the required number of CHVs. Further, Turkana achieved a ratio of 1:8 supervisor to CHV against a national target of 1:10.

Capacity building for iCCM

There is no dedicated budget for capacity building for iCCM activities and most of the time, it is partner supported. There is need to build capacity on the revised iCCM guidelines for Trainer of Trainers (ToTs), Community Health Extension Workers (CHEWs)/Community Health Assistants (CHAs), CHVs and link health facility in-charges.

2.3.5 Health products and technologies

There was no harmonized approach to supply chain management to iCCM commodities from the link Health Facility to the CHVs. Community health volunteers should access all approved commodities from the link health facilities including iCCM commodities see Annex I for the list of iCCM commodities. Following the 2019 panel of experts' recommendations on treatment of pneumonia at the community level, CHVs will henceforth treat fast-breathing pneumonia using Amoxicillin DT. The link health facilities are also required to provide clinical supervision and mentorship to CHVs on the community case management.

From the assessed Counties, the health facilities did not have adequate stocks of commodities to ensure full replenishing of iCCM commodities for the CHVs when they need them. One of the reasons for this is the poor forecasting of the commodity needs from the community to the health facility level and also challenges in the County supply chain systems in obtaining health products and technologies due to resource constraints.

2.3.6 Financing of iCCM

Specific resources allocated for iCCM are generally scarce at both the National and County levels. This means that iCCM implementation is still dependent on partner funding. Some key financing issues include:

i. National Policy level Health Financing instruments do not explicity recognize iCCM
ii. Delayed disbursement of finances for CHS and payment of CHVs. Some Counties have integrated the CHVs in their payroll and are able to provide payments consistently however this needs to be anchored to the Community Health Services Bill (Less than 10 counties have the health bill enacted to law).
iii. Donor dependence: This may be a threat to local ownership and sustainability of iCCM
iv. Inconsistent implementation of non monetary incentives to enhance sustainability of CHV work in general and iCCM.

Financing gap analysis of implementation of iCCM

Modelling data from the three counties and taking into account 5% annual incremental coverage, estimated that theoretically, it would theoretically cost approximately KES 49B to implement iCCM across the 47 counties in Kenya in a period of 5 years if we were to achieve 100% coverage. This would mean an investment of 6% of the annual health budget to support scale up of iCCM implementation.

Cost Drivers for iCCM

Generally, costs related to the human resources for health account for the biggest projected costs (approximately more than 90% of the projected costs). For example, CHV remuneration and equipment (approximately 40% of the costs) and initial training of CHVs (approximately 22% of the costs).

Cost of iCCM Commodities

Malaria related commodities are the critical drivers of the commodity costs, accounting for more than 65% of the commodity costs at both national and county level. This is however likely to change with introduction of Amoxicillin DT for treatment of fast breathing pneumonia. The projected total commodity cost is likely to be more than KES. 500 million.

Funding Gaps

Besides the general funding commitments to Community Health Services, there is no financing earmarked for iCCM. Within the current Medium-Term Expenditure Framework-MTEF- (FY2021/22-FY2023/24), Community Health Services are bundled under the Primary Health Care sub-program (Preventive, Promotive and Reproductive Maternal Neonatal, Child and Adolescent Health (RMNCAH) Program) and the Pre-Service and In-Service training subprogram (Research and Development Program). The specific allocations to Community Health Services, and iCCM are thus not disaggregated for an accurate estimate of the funding available for the said services.

Return on investments in iCCM - Lives Saved

It was estimated that with 5% annual increase in programme coverage, the Country would achieve a 6% reduction in the U5MR from 42.6 per 1,000 live births to 40.1 per 1,000 live births (translating to about 9,068 lives saved) through implementation of iCCM between in the next 5 years as shown in Figure 2.8. The greatest mortality benefit (deaths averted) would be achieved counties with very high under five mortality rates such as Busia (10% potential decline in U5MR from 146.3 to 132.8 per 1,000 live births (translating to about 1,250 lives saved) through the iCCM scale-up.

Change in U5MR in Kenya

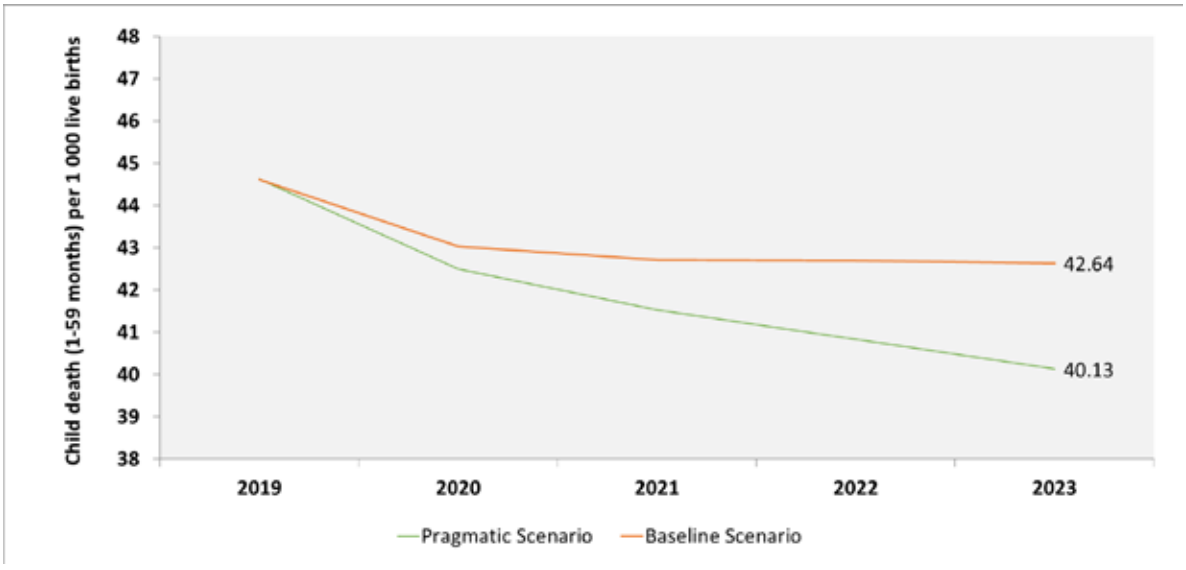

Figure 2.7 Potential change in Child Mortality Rates in Kenya

Productivity Benefits

We estimate that each individual life saved would have contributed approximately KES. 7,584,556 in economic activity over his or her lifetime. This estimate is based on the following assumptions: GDP per capita of Kenya (2020)[22] with a growth of 2.3% per year1, that children in this cohort will enter the workforce at age 18 and exit the workforce at age 60[23], Adult Survivorship Rate of 77%[24], Labor Force Participation Rate of 68%[25], A 5% discounting to calculate the net present value of the future cashflows from these projected lifetime earnings.

Based on this, the estimated total present value of productivity benefits for entire cohort of 9,068 children (nationally) over their lifetime would be approximately KES. 53B.

Multiplier Effects

The fiscal multiplier effect refers to the effect of government spending on the growth of the economy. As a result, any amount spent by the government or donors contributes to some change in the growth of the economy. A multiplier effect of greater than one implies that every shilling spent translates into more than one shilling growth in the economy[26]. The Multiplier effect varies under the influence of multiple factors such as governance, natural disasters, population etc.

Return on Investment (ROI) is calculated as sum of productivity benefits and Multiplier Benefits/ Total Cost of Implementing iCCM. We estimate that the potential ROI for nationwide scale-up would range from 1.2 to 2.1

Implication

The greatest ROI may be derived from the regions with high U5MR. Consequently, implementation and scale-up should be fashioned to target regions with high U5MR rather than general undifferentiated implementation.

22 The 2020 Economic Survey released by the Kenya National Bureau of Statistics estimates the GDP Per Capita to be Kes. 204,7873; GDP per Capita Annual Growth Rate to be 2.3%; Employment Rate of 89.6% of the Labour Workforce.

23 The 2019 Kenya Population Census estimates the average life expectancy in Kenya to be 66.4 years.

24 The Adult Survivorship Rate refers to the proportion of 15-year-olds who will survive until age 60. This statistic is a proxy for the range of health risks that a child born today would experience as an adult under current conditions.

25 The labour force participation rate is a measure of the proportion of a country's working-age population that engages actively in the labour market, either by working or looking for work; it provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the population at working age. Source-ILO

26 Stuckler D, Reeves A, McKee M. Social and economic multipliers: What they are and why they are important for health policy in Europe. Scand J Public Health. 2017;45(18_suppl):17–21.

3 Chapter 3: Evidence and Experiences in integrated Community Case Management

3.1 Global experiences

Globally, the mortality rate in children under-five years has declined on average by at least 50% between 1990 and 2018. Despite this reduction, in 2018, there were still an estimated 5.3 million deaths among children under-five, with an estimated 2.5 million deaths in the 0-28 days, 1.5 million deaths between 1-11 months, and 1.3 million deaths for those aged between one and four years. Low- and middle-income countries (LMICs) in sub-Saharan Africa (52%) and Southern Asia (29%) contributed to almost 80% of these deaths. The leading causes of under-five mortality globally, and particularly in the regions of sub-Saharan Africa and Southern Asia, were infectious diseases, including pneumonia (15%), diarrhoea (8%), malaria (5%) and newborn sepsis (7%)[27] with nutrition-related factors being major contributors in all these deaths by increasing the frequency and severity of the infection and slowing down the recovery process.

Similarly, in Kenya the leading causes of the 63,657 under 5 deaths in 2019, were; Prematurity complications (21%) ARI/Pneumonia (14%), Birth asphyxia (14%), diarrhoea (7%), congenital anomalies (5%)[28].

More than half of these early child deaths are preventable or can be treated with high impact interventions such as; immunization, adequate nutrition, safe water & food and appropriate care by a trained health care provider.

Correct treatment of these conditions among under-five children is crucial within the first 24 hours of citing the symptoms. This is however a challenge in resource constrained countries that have limited access to the health facilities and even where available, there is an acute shortage of health workers. To address these problems, WHO/ UNICEF and others, in 2012, developed and popularized an approach known as iCCM[29]. It focuses on children under five years of age. They receive services from a lay health worker/CHW. It has three main components:

i. Lay health workers are trained to assess children's health, provide treatment or refer to a health facility for common childhood illnesses.

ii. Systems are put in place to make sure that the lay health workers have good access to supplies, get regular supervision and can easily refer children on to healthcare facilities

iii. Families and communities receive communication and information about good practices for health and nutrition.

It had been shown that, iCCM could achieve 70% reduction in mortality from pneumonia, 53% reduction in morbidity from severe malaria and 70-90% prevention of deaths from acute watery diarrhoea through provision of oral

27 Levels and trends in child mortality 2019: Estimates developed by the UN Inter-agency group for child mortality estima¬-tion available at [https://www.unicef.org/reports/levels-and-trends-child-mortality-report-2019 accessed in November 2021)

28 WHO Maternal, newborn, child and adolescent health and ageing: Data portal accessed on 21st May 2022 at https://plat-form.who.int/data/maternal-newborn-child-adolescent-ageing/indicator-explorer-new/mca/number-of-under-five-deaths---by-cause

29 World Health Organization and UNICEF. Integrated Community Case Management, an equity-focused strategy to improve access to essential treatment services for children. World Heal Organ Joint Statement [Internet]. 2012;(iCCM). Available from: http://www.unicef.org/health/files/iCCM_Joint_Statement_2012.pdf

rehydration salts. Several sub-Saharan African countries adopted iCCM as part of their health strategies although at different times (early vs late adopters). This was however to be followed up by provision of comprehensive support.

Some of the emerging challenges have been in health commodities supply chain management, quality of care, and CHV remuneration, training, mentorship and supervision. A recent review by Oliphant and others in 2021, reported a paucity of evidence on iCCM enhancing access to the right treatment and the only available evidence was that iCCM has improved to care seeking behaviors by the communities and households[30] .

Some of the programmatic evidence however does suggest that there may be other benefits of iCCM for example:

1. iCCM was perceived to facilitate timely treatment access and improve child health in peri-urban settings in Uganda. (Wakiso et al 2017)
2. A review of progress in 18 countries (Burkina Faso, Nigeria, Ghana, Niger, Senegal, Benini, Mali, Sierra Leone, South Sudan, Ethiopia, Uganda, Rwanda, Kenya, Burundi, Cameroon, DRC, Malawi, Zambia) by the Global Fund rin 2018, revealed that countries wered already expanding iCCM services during the time of assessment, but were at different stages of expansion/scale up. Uganda & Zambia selected rural districts with highest U5 mortality rates for implementation; while others such as Ethiopia opted for a blanket coverage across the country.
3. Different countries have been implementing slightly differnt iCCM packages. For example
    a. Burkina Faso, Nigeria, Ghana, Niger, Senegal, Benini, Mali, Sierra Leone, South Sudan, Ethiopia, Uganda, Rwanda, Malawi, Burundi, Cameroon, DRC, Zambia offer treatment for uncomplicated malaria, pneumonia and diarrhoea; and referred malnutrition & newborn with danger signs.
    b. Malawi also added treatment of red eye to the above package; while;
    c. Kenya has been offering treatment of malaria using ACTs and Diarrhoea using ORS & Zinc and any suspected pneumonia and malnutrition are referred to the nearest health facility. However Kenya allowed the treatment of pneumonia in 2019 as per the experts recommendations. All sick newborns are to be referred to the nearest health facility.
4. Some of the lessons learnt globally include;
    a. Countries with strong leadership, policy support and national partnership were more successful at facilitating iCCM scale up.
    b. Use of evidence from pilots to guide the scale-up policy, facilitated iCCM scale up speed for some countries such as Niger, Ghana & Rwanda.
    c. Successful Primary Health Care programs at the community level served as a platform for iCCM introduction and speedy scale up for instance in Uganda, Senegal, DRC.
    d. An already existing and competent pool of CHWs, integrated into the MOH staff structure and salaried, facilitated recruitment and training of CHWs to provide iCCM to scale.

30 Oliphant et al 2021. Integrated community case management of childhood illness in low- and middle-income countries (Review). Cochrane database.

3.2 Kenya iCCM experience

The implementation of iCCM in Kenya is guided by the national implementation framework and Plan of Action 2013-2018 and its M&E plan, National iCCM training guidelines and service delivery tools.

iCCM in the context of the primary health care system

Kenya's Primary Health Care system aims to provide essential health care based on practical, scientifically sound, and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford. iCCM services are dependent on a functional community health system which in turn leverages and links with the network of primary health care facilities. The success of iCCM, therefore, is dependent on a robust primary health care system. Efforts to strengthen iCCM should be implemented in tandem with system strengthening of primary healthcare.

Scope of iCCM in Kenya

The scope of iCCM in Kenya (Table 3.1) is informed by the country situation, lessons learnt from existing community-based interventions and global and country recommendations.

Table 3.1 Scope of iCCM in Kenya

Conditions	Interventions	Expected Actions
Diarrhoea	ORS & Zinc	Need to supply ORS & Zinc.
Malaria	Artemisinin-based combination therapy (ACT) Malaria Rapid diagnostic test (mRDT)	• Testing and treatment of Malaria based on existing evidence • Continuing rigorous evaluation on mRDT Roll out • Do mRDT, if positive treat with ACT, if Negative refer to the nearest health facility • If ACT is not available, CHVs should not do mRDT. • If mRDT is not available, CHV should Not give ACT but give paracetamol and refer to a health facility.
Pneumonia	Assess, classify, and treat children with fast breathing and No danger sign with amoxicillin DT. Give pre-referral treatment and refer any child with fast breathing and any danger sign.	• Process of implementation of the recommendation by the Child Health Panel of Experts November 2019, has been detailed in the 2021 CHV training revised guidelines, will include assessment, classification, and treatment by CHVs using Amoxicillin Dispersible tablets, for a child with fast breathing and no danger sign(s), and no severe malnutrition. • Document implementation and lessons learnt to inform scale up.
Malnutrition	Screening with Mid Upper Arm Circumference (MUAC) tapes and checking for swelling on both feet.	• CHVs to refer all children with Severe acute malnutrition (SAM) or Moderate Acute Malnutrition (MAM) and follow up after discharge. • Implementation of Ready to Use Therapeutic Feeds (RUTF) / Ready to Use Supplementary Feeds (RUSF) will be informed by evidence synthesis following the research studies in Turkana and Isiolo counties aimed at linking management of Severe Acute Malnutrition (SAM)/ Moderate Acute Malnutrition (MAM) to the existing iCCM implementation.

Conditions	Interventions	Expected Actions
Newborn health	Referral of sick newborn with ANY danger sign.	Implementation strategies include: • Home visit by CHVs within 48hrs to assess for danger signs for the newborn and the mother using the newborn danger signs checklist. • Visits on day 1, day 3 and day 7 following birth • All newborns referred to health facility, on return home, the CHV to make a follow up visit. • According to Possible Serious Bacterial Infections (PSBI) guidelines, all CHVs are required to identify, assess, refer and follow up newborn(s) with any danger sign.
Assessment on child status on immunization, Vitamin A and deworming:	Immunization: if any vaccine is missed or due on the day of visit	Refer to the nearest health facility
	Vitamin A Supplementation: If any dose is missed or due on the day of visit	Refer to the nearest health facility
	Deworming medicine: If any dose is missed or due on the day of visit	Refer to the nearest health facility
Positive health behaviour and practices	Interventions include Long Lasting Insecticidal Nets (LLINs) use, Handwashing with soap and clean running water, household water treatment, safe disposal of infant faecal matter, exclusive breastfeeding, safe waste disposal, reduction of indoor air pollution in households and communities.	Focus on community dialogue, interpersonal communication and use of social channels to enhance positive health behaviours.

3.3 Organization of Community Health Services

iCCM is implemented by CHAs & CHVs in a Community Health Unit (CHU). A CHU is a structure comprising of 1 CHA and 10 CHVs that serves a population of 5,000 in approximately 1,000 households. Each of the Community Health Unit is linked to a Link Health Facility. Community Health Workforce comprises of Community Health Committee (CHC) which is the governance structure, the Community Health Assistants (CHA) who are the supervisors of the CHVs who provide the health services at the household/community level and report on a monthly basis as shown in Figure 3.1.

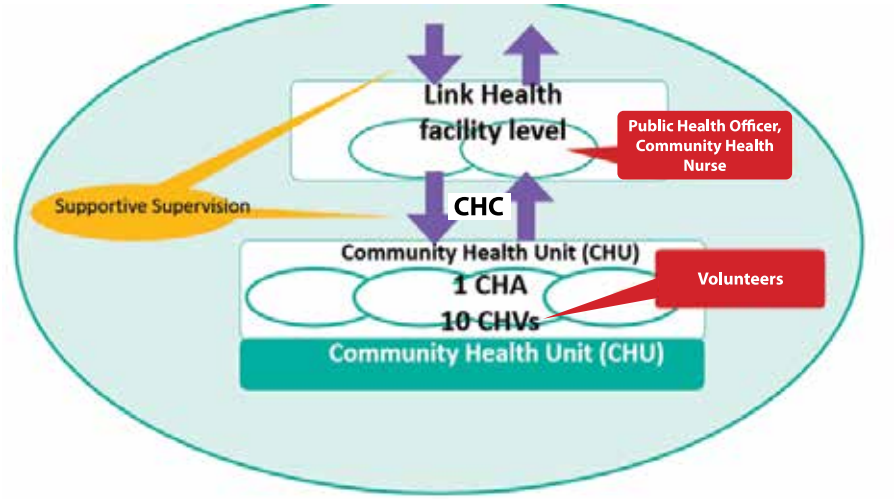

Figure 3.1 Coordination of Community Health services in Kenya

iCCM services are organized in the following structures: the CHU linked to a health facility. The health care workers supporting iCCM implementation include but not limited to; CHA, Link Health Facility in-charge & Clinical Health Worker supporting the CHVs, Sub County Neonatal and Child Health focal person in collaboration with the Sub-County Community Health Focal Person, County Neonatal and Child Health Focal Person in collaboration with County Community Health Focal Person, Division of Neonatal and Child Health (DNCH) in collaboration with the Division of Community Health (DCH).

3.4 Data Flow

Data for iCCM will flow according to the existing system, starting with the CHVs reporting to the CHAs, who report to the link facilities and then to the sub-county level see Figure 3.2.

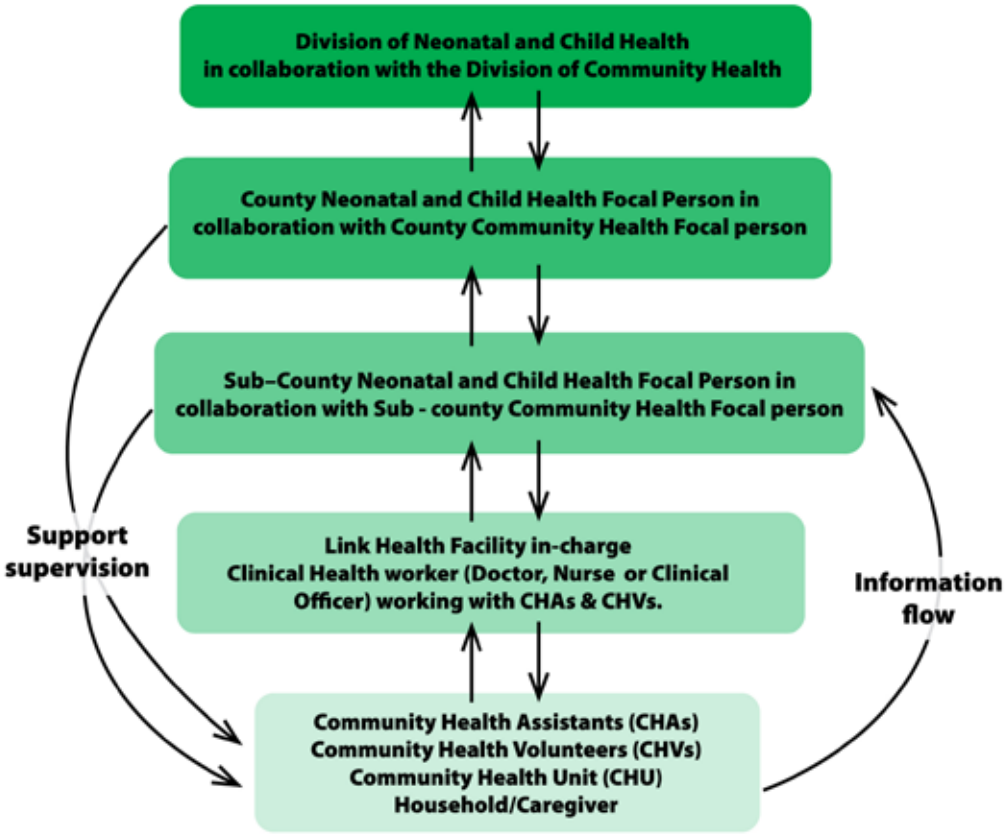

Figure 3.2 Flow of information and support supervision for CHVs

3.5 Capacity building of CHVs for delivery of quality iCCM services

All CHVs must undergo training on the relevant interventions to acquire skills and competence required for delivery of quality services at the household/community level.

All CHVs must undergo an intensive 10-day basic training covering the following modules:

i. Module 1: Introduction to Community Health and Development
ii. Module 2: Community Governance and Leadership
iii. Module 3: Communication, Advocacy and Social Mobilization
iv. Module 4: Best Practices for Health Promotion and Disease Prevention
v. Module 5: Basic Case Management and Life-Saving Skills
vi. Module 6: Management and use of Community Health Information (CHIM) and Community Disease Surveillance

After the training on community health basic modules (1-6), CHVs are trained on technical modules as listed below:

vii. Module 7: Water, Sanitation and Hygiene
viii. Module 8: Community Nutrition
ix. Module 9: Integrated community Case Management (iCCM)
x. Module 10: Community Maternal Newborn Care (CMNC)
xi. Module 11: Family Planning
xii. Module 12: HIV/AIDS, Tuberculosis and Malaria
xiii. Module 13: Noncommunicable Diseases
xiv. Module 14: Indoor air pollution

Following the ministry's adoption of the recommendations by panel of experts on treatment of uncomplicated fast breathing pneumonia at the community level, all CHVs will have to undertake the following iCCM trainings and supervision.

xv. For newly recruited CHVs to be trained on community health basic modules for 10 days plus 7 days using the iCCM training guidelines of 2022.
xvi. Existing CHVs already trained on the basic modules for 10 days, shall together with CHAs undertake 7 days using the iCCM training guidelines of 2022.
xvii. Previously trained CHVs on Basic modules for 10 days and iCCM for 5 days using the iCCM training guidelines of 2013, shall undertake 3 days training using the iCCM training guidelines of 2022.
xviii. Follow up of trained CHVs within 3 - 4 weeks.
xix. Monthly support supervision and mentorship by the CHA
xx. Monthly support supervision and mentorship by the Clinical Health Worker at the Link Health Facility
xxi. Quartely supervision of the trained CHVs/ CHAs by County and Sub-county levels.
xxii. Accreditation and certification of the CHVs trained on iCCM.

3.6 Data collection and reporting tools used at community level

Community Health uses evidence-informed interventions. As part of this, data is collected and used for planning and policy formulation. The following data tools are used at the community level to collect data:

i. MOH 513 CHIS Household Register
ii. MOH 514 CHV Service Delivery Log Book
iii. MOH 515 Community Health Monthly Summary Report
iv. MOH 516 CHIS Chalk Board
v. MOH 521 Community treatment and tracking register
vi. MOH 100 Referral form

3.7 General lessons on iCCM in Kenya

Based on the situation and gap analysis reports of 2021, the following are some of the lessons learnt;

i. There is need for advocacy on financing of iCCM at all levels (National, County, Sub County, facility and community).
ii. There is need to establish a robust commodity management system that ensures consistent and efficient supply of iCCM commodities.
iii. Data quality needs to be enhanced and provided in a more comprehensive manner that will enable evidence-informed resource allocation. Standardized digitization of reporting tools would improve the efficiency of data collection, transmission and utilization.
iv. Advocacy for implementation of legal and policy guidelines to facilitate recruitment, training, remuneration and retention of CHVs and CHAs so as to ensure adequate coverage and quality of care.
v. Since iCCM is based on a functional primary health system, implementation and scale up must therefore be coupled with concurrent investments to strengthen the primary health system.
vi. There is need to strengthen demand creation for community-based health services including iCCM through creating awareness and social mobilization towards achievement of UHC.

4 Chapter 4: Operational Strategies

4.1 Vision

A Nation where communities have zero tolerance for preventable deaths of children.

4.2 Goal

The goal of the Kenya iCCM strategy is to contribute to the reduction of child morbidity and mortality through provision of quality community case management for children with malaria, pneumonia, diarrhoea & malnutrition, and identification and referral of newborns who have danger sign(s) to a health facility/ health care provider.

4.3 Overall objective

To contribute to increased access to appropriate and timely management (within 24 hours) of malaria, pneumonia, diarrhoea & malnutrition in children 2 months - 59 months and assessment and referral of newborns with danger signs.

Table 4.1 shows the most critical indicators that will be used to measure attainment of the strategy goal at the end of the five-year strategic period. The targets are aligned to the Kenya Health Policy 2014-2030 and the country's commitment to the attainment of the SDGs by 2030.

Table 4.1 Key Performance indicators with targets

Key Performance Indicators	Targets
1. Proportion of CHVs trained on iCCM.	60%
2. Proportion of the trained CHVs actively providing iCCM	100%
3. Proportion of counties with CHVs receiving monthly remuneration for provision of community health services including iCCM.	100%
4. Proportion of health facilities in target areas with adequate iCCM commodities and supplies.	80%
5. Proportion of Community Health Units implementing iCCM with zero stock-outs of essential medicines/supplies for iCCM.	80%
6. Proportion of sick children and newborns who are referred to a health facility, are received and documented.	80%
7. Proportion of link health facilities with a filing system for the CHV referral forms.	80%
8. Proportion of newborns receiving a home visit within 48 hours of birth by trained CHVs who administers the danger signs check list for the newborn and mother and counsel or refer as necessary.	100%

9. Proportion of community units implementing iCCM with timely reporting on identified iCCM indicators through the eCHIS.	80%
10. Proportion of community units implementing iCCM with completed reports on identified iCCM indicators through the eCHIS.	80%
11. Proportion of iCCM trained CHVs who received at least one supervisory contact in the last three months during which registers and/or reports were reviewed.	80%

4.4 Guiding Principles

In the implementation of iCCM, the following principles will be adopted:

i. Effective government leadership and stewardship role, both at the National and Sub-National levels.
ii. Building upon the existing Community Health Strategy
iii. Scale up of iCCM implementation based on evidence informed interventions and policy environment.
iv. Coordination and collaboration of stakeholders at all levels
v. Use of standardized MoH tools and reporting platforms by all stakeholders.
vi. An integrated approach to the planning, implementation and M&E of iCCM activities.
vii. Community engagement for demand creation and ownership of iCCM
viii. Adequate capacity building at all levels
ix. Coordination of iCCM at the County level is to be carried out by the County Neonatal and Child Health focal person in collaboration with the County Community Health focal person.

4.5 iCCM Priority Activities at all levels

Implementation Framework and Steps

In the implementation of iCCM, the government and partners shall apply a common framework and share common guidelines and tools. Implementation principles and steps are outlined in this framework as follows:

Implementation framework

The implementation of iCCM is a government-led process with partners in a supporting role as shown in Figure 4.1. The overall policy framework, guidance and technical assistance shall be provided by the national level, whereas planning and implementation in communities shall be overseen by the county and sub-county levels.

iCCM needs to be scaled up in all counties with priority focus on the hard-to-reach communities. Community ownership of iCCM activities is critical. Partners are expected to support government in implementation and use MoH standardized tools and approaches.

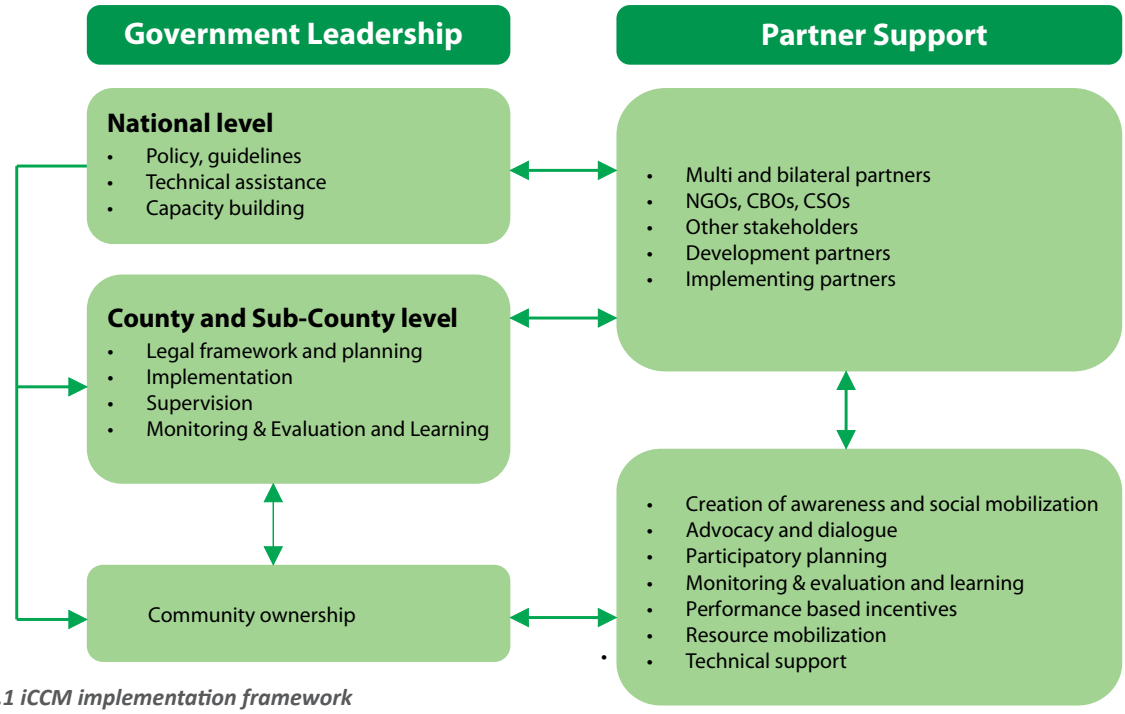

Figure 4.1 iCCM implementation framework

4.6 Criteria for selection of CHUs and CHVs

Selection of CHUs

The following criteria shall be applied in the selection of CHUs targeted for implementation of iCCM:

i. CHUs which have been established according to the Community Health Policy and Strategy and are functional.
ii. CHUs which have CHVs already trained on Community Health basic modules using the national curriculum
iii. Prioritization based on maternal, newborn and child health indicators and hard-to-reach communities

Criteria for selection of CHVs

The following criteria shall be applied in the selection of CHVs in line with Community Health Policy.

Definition of a CHV:

The CHVs should be members of the local communities they are selected to serve in. To qualify as a CHV, individuals shall be required to meet the conditions outlined below:

i. Must be a citizen of Kenya
ii. Must meet the requirements of Chapter Six of the constitution
iii. Should be above the age of 18 and of sound mind.
iv. (S)he must be a responsible and respected member of the community
v. Is self-supporting and understands that the role of a community health volunteer does not draw a monthly income
vi. Is willing and ready to provide services to the community without charging
vii. (S)he must be a resident (including overnight stay) of respective community that is selecting him / her for a continuous period of not less than five years prior to the appointment date
viii. Is a form four leaver and literate, unless where the situation does not allow
ix. Is not disqualified for appointment to office by the above criteria or by any law

5 Chapter 5: Leadership and Coordination

The goal and objectives of the iCCM strategy will be achieved if the policy environment is supportive and if there is active involvement of all partners from both public and private sectors, along with strong leadership by the government. Policy change is critical to allow CHVs to administer Amoxicillin DT for treatment of fast breathing pneumonia and no danger signs. Improved coordination and better use of resources would result in minimizing duplication of efforts and ensuring the scale-up of iCCM activities leading to increased access to quality of care. For this to happen, a clear definition of roles and responsibilities is needed. Table 5.1 defines the roles of the various stakeholders in ensuring delivery of quality iCCM services.

Table 5.1 Role of stakeholders in iCCM implementation

Level	Persons responsible	Responsibilities	Data collection & reporting tools and check lists
Household	Caregiver	✓ Take care of the child ✓ Allow the community health workforce into their households ✓ Compliance with the instructions and treatment given. ✓ Provide correct information of a child	N/A
Community	CHV	✓ Track services provided and commodities received and consumed ✓ Documentation of services on a monthly basis and submit to CHA ✓ Ensure timely referral of clients to health facility ✓ Appropriate storage and utilization of commodities as per the guidelines ✓ Creation of awareness and social mobilization of the communities on health ✓ Participate in community dialogue and action days ✓ Follow-up clients ✓ Defaulter tracing and referral	• Household registers (MOH 513) • CHV service delivery logbook (MOH 514) • CHV treatment and tracking register (MOH 521) • Community referral form (MOH 100) • Stock Records

Level	Persons responsible	Responsibilities	Data collection & reporting tools and check lists
Community Health Unit	CHA	✓ Supervise CHVs day to day work and document using standard iCCM follow-up/supervision checklist ✓ Review and compile CHV data, stock records and supervision records and submit report to link health facility ✓ Upload data to KHIS through the e-CHIS for validation ✓ Update MOH 516 (Chalk Board) ✓ Convenes quartely community dialogue days and monthly community action days. ✓ Member/Secretary of the community work improvement teams ✓ Participate in the community data quality audit ✓ Conduct support supervision together with the clinical supervisor at the health facility during the CHVs monthly meetings. ✓ Advocate for inclusion of iCCM activities in the community AWP	• Household registers (MOH 513) • CHEW/CHA summary report (MOH 515) • iCCM follow-up/ supervision checklist • CHA Community Health Commodity tool • Stock Records • Stock Report
Community Health Unit	Community Health Committee	✓ Oversight the functions of the community health units ✓ Resource mobilization ✓ Creation of awarenes and social mobilization of the communities on health issues. ✓ Organize and participate in community dialogue and action days. ✓ Participate in the preparation of Community AWPs	N/A
Link Health Facility	Facility in charge	✓ Supervise CHAs ✓ Review Monthly summary report (MOH 515) ✓ Ensures updating of the MOH 516 (Chalk Board) ✓ Undertake quantification of commodity needs for the facility including the catchment area. ✓ Ensure availability of commodities (medicines, supplies, equipment) for replenishing the CHV kits. ✓ Ensure quality data on iCCM ✓ Identifies a clinical health worker to work with CHA and CHV for iCCM supervison, mentorship & coaching. ✓ Incorporate the CHA in monthy facility meetings ✓ Ensure there is a functional commodity security commitee where applicable ✓ Advocate for inclusion of iCCM activities in the facility AWP	• Monthly summary report (MOH 515) • Stock records (S11, S13)

Level	Persons responsible	Responsibilities	Data collection & reporting tools and check lists
Sub County	Neonatal & Child Health Focal person in collaboration with Community Health Focal person	✓ Work in close collaboration for iCCM cordination ✓ Supervise link health facilities and CHUs and document as per the iCCM standard checklist ✓ Participate in iCCM data analysis for decision making ✓ Participate in Rapid data Quality Assesment (RDQA) ✓ Coordinate capacity building on iCCM ✓ Provide feedback to link health facilities and community health units ✓ Advocate for inclusion of iCCM activities in the sub-county AWP	• iCCM data Quality Audits checklist • iCCM standard checklist
✓ Sub-county	Pharmacist	✓ Coordinate forecasting and quantification of commodities ✓ Supervise commodity use in facilities and CHUs ✓ Supervise commodities use to ensure rational use ✓ Undertake capacity building on pharmacovigilance for community health workforce and health care providers ✓ Undertake post market surveillance on community health commodities.	• Stock Control Records • Pharmacovigilance forms (Yellow and Pink form)
County	Neonatal & Child Health focal person in collaboration with Community Health focal person	✓ Supervise sub-county level ✓ Review sub-county level data and maintain county level information and reports ✓ Prepare reports and provide feedback to National on iCCM implementation status ✓ Prepare reports and provide feedback to sub-county ✓ Resource mobilization for iCCM activities ✓ Advocate for inclusion of iCCM activities in the County AWP, Annual Development Plan (ADP) & County Integrated Development Plan (CIDP) ✓ Ensure that iCCM commodities (medicines, supplies and equipment) are included in the procurement plan. ✓ Capacity building of community health workforce and health care providers on iCCM ✓ Coordinate forecasting and quantification of commodities in conjuction with the Health Products and Technologies unit. ✓ Convene the neonatal and child health technical working groups meeting ✓ Documentation of best practices in iCCM for learning purposes.	eCHIS linked to KHIS.

Level	Persons responsible	Responsibilities	Data collection & reporting tools and check lists
County	Pharmacist	✓ Coordinate forecasting and quantification of commodities ✓ Supervise commodities use to ensure rational use ✓ Coordinate capacity buidling of pharmacovigillance for community health workforce and health providers ✓ Coordinate post market surveillance on community health commodities. ✓ Verification of the sub county orders for iCCM commodities	• Stock control records • Pharmacovigilance forms (Yellow and Pink form)
National	iCCM Programme Manager	✓ Ensure availability of updated policies, guidelines and tools for iCCM implementation ✓ Resource mobilization for iCCM activities ✓ Convene the quartely iCCM TWG and Commitee of Experts meetings as necessary ✓ Ensure provision of Technical assistance to the Counties for iCCM implementation ✓ Review national level iCCM data for decision making ✓ Conduct iCCM data quality audits across the counties ✓ Prepare reports and provide feedback to counties/ other departments on iCCM implementation ✓ Work in collaboration with Community Health Division ✓ Ensure inclusion of iCCM activities in the Ministry AWP, Medium Term Expenditure Framework (MTEF) and Health Sector Strategic Plan. ✓ Ensure inclusion of iCCM commodities and tools in the procurement plan ✓ Accreditation and certification of trained community health volunteers ✓ Aggregation and dissemination of best practices in iCCM. ✓ Ensure mid-term and end-term evaluation of the framework and action plan are conducted.	eCHIS linked to KHIS.

6 Chapter 6: Implementation plan

6.1 Strategic directions

The following will be the most critical strategies that will be implemented to ensure attainment of the overall goal at the end of the five-year strategic period. The strategies are aligned to the Kenya Health Policy 2014-2030, Community Health Strategy among other relevant documents and the country's commitment to the attainment of the SDGs by 2030. The strategies are described by the building blocks of the health system, though health infrastructure has been merged with health products and technologies and as such here we describe seven blocks providing seven strategic directions.

6.1.1 Human Resources for Health

Achieving UHC requires an enabling policy environment, better human resources for health (HRH) management systems and practice and a harmonization of HRH interventions for improved health outcomes. Kenya's increasing population has strained the available HRH as the number of HRH with critical skills produced and absorbed by the country are not adequate to meet this expanding gap.

The overall goal of the iCCM is improve access to quality health services at the community level. To achieve this goal, a well-trained, competent, equitably distributed and remunerated community health workforce is required. Community health services are a core element in UHC, there is therefore the need to invest in the community health workforce (CHAs and CHVs) and the support system.

The following strategies will be implemented in the next 5 years:

Strategic Direction 1: Support interventions to ensure availability of adequate, skilled and knowledgeable human resources for provision of quality iCCM services at community level

Strategies;

1. Capacity building on iCCM
2. Clinical attachment and mentorship on iCCM
3. Strengthen support supervision at all levels
4. Advocate for provision of monthly remuneration for CHVs.

6.1.2 Health financing

Health Financing has the aims at: increasing public financing for health, maximizing availability and fairness in resource utilization (risk pooling) and strengthening strategic purchasing. Kenya has been faced with the challenge of raising adequate resources to finance its health system. The main objective in this plan is to ensure there are adequate resources for implementation of iCCM through resource mobilization but also ensuring accountability in the resources mobilized for iCCM.

This will be done through implementation of the following strategies.

Strategic Direction 2: To ensure availability of adequate financing for delivery of high impact and quality iCCM services.

Strategies;

1. Create an enabling environment for increased public private partnership and community involvement in health services provision and finance
2. Ensure accountability of iCCM funding
3. Ensure adequate funding for community health
4. Provide stipend to the CHS providers
5. Advocacy and mobilization for increased, equitable and sustained iCCM health financing at National and County level.

6.1.3 Health Products and Technologies

To achieve UHC availability of commodities is critical because no services can be rendered without the necessary health products and technologies. This will require effective and efficient public health supply chains that can deliver quality HPTs in a reliable and cost-effective way. An increased scope of commodities in the CHVs kit is also necessary to support the recommendation of using amoxicillin DT in community management of fast breathing pneumonia. This also calls for heightened pharmacovigilance to forestall antimicrobial resistance in the community and ensure availability of quality products.

The following strategies will be implemented:

Strategic Direction 3: Strengthen systems including procurement, supply chain management to ensure availability of safe and quality essential lifesaving medicines, commodities, equipment and technologies for iCCM services.

Strategies;

1. Capacity building for Community Health workforce and Health care providers on supply chain management of iCCM commodities
2. Advocate for implementation and rollout of the community commodity tracking tool for stock management
3. Advocate for increased procurement of approved health commodities; essential medicines, equipment and technologies for delivery of quality iCCM services
4. Strengthen Pharmacovigilance (PV) and Post Market Surveillance (PMS) at the community level.
5. Enhance supportive supervision on commodity and supply chain management for iCCM.

6.1.4 Health Information, Monitoring and Evaluation.

A well-functioning Health Information System (HIS) is critical for health sector performance, evidence-informed decision making, accountability and monitoring of the actions that follow from those decisions. Use of good-quality information acts as a catalyst for an effective health sector governance and stewardship, improving the quality and availability of health care service delivery. The objective of HIS is to facilitate access to quality health information for decision making at all levels.

Community health information system, within which iCCM data is reported, is key in enabling evidence driven decision making. Key areas of focus here will be strengthening information generation, validation, analysis, dissemination and utilization, and the strategies are structured around these key areas.

Strategic Direction 4: Strengthen health information management system to ensure collection and management of disaggregated data at community level to inform iCCM implementation.

Strategies:

1. Provide adequate data-collection tools (paper and electronic) at service delivery points.
2. Support implementation of guidelines and standards relating to the harmonization of community health information systems.
3. Capacity building of community health work force on data management.
4. Monitor and evaluate implementation of the iCCM framework.
5. Documentation of lessons learnt and plan for learning events for sharing.

6.1.5 Leadership and Governance

Effective leadership and governance are essential for provision of strategic direction, development of appropriate plans and policies. It also helps with effective demand creation, oversight, establishment and maintenance of essential partnerships that integrate all health systems building blocks to achieve the desired results in iCCM. The strategies herein are geared towards ensuring there is effective leadership and governance.

Strategic Direction 5: To strengthen iCCM stewardship within the sector, across other sectors and partners

Strategies:

1. Community engagement for demand creation
2. Advocacy for partnership (including private public partnership).
3. Development and review of appropriate policies and guidelines for implementation of iCCM.
4. Effective coordination and collaboration to strengthen iCCM

6.1.6 Health Research

Health research serves as the basis of provision of evidence to inform decisions and practice. The Health Act 2017, provided for a research coordination framework which led to inauguration of a National Research for Health Technical Working Group, development of the Kenya Health and Research Observatory prototype, and holding of National Research to Policy conferences. Despite, this progress in the health sector, there are still some challenges in health research and development like; uncoordinated research for health, leading to unwarranted duplication and non-optimal use of resources and findings, low funding for research as the sector continues to rely on external funding, and low translation of research findings to policy and product.

It is envisaged that during this period, with implementation of the strategies described below, there will be a structured iCCM research coordination and translation of research into policy and products.

Strategic Direction 6: To promote research in health to guide policy formulation and action to improve health and development.

Strategies;

1. Integrate research plan and capacity building initiatives for national and county levels
2. Investment in research and evidence generation for effective policy and programme development
3. Enhance research linkages with academic and research institutions

6.1.7 Service delivery

Increasing access to equitable quality iCCM services including referral services, creating and sustaining demand for improved preventive and promotive health care services is at the core of this framework.

The following strategies will be implemented to ensure that all building blocks are tied together to enable provision of quality services:

Strategic Direction 7: Create an enabling environment for provision of quality iCCM services

Strategies:

1. Operationalization of the revised implementation framework & guidelines
2. Support effective referral systems at community to facility, and referral back to community.
3. Increase access to quality integrated community case management (iCCM) services as per the national guidelines.
4. Establishment and implementation of quality improvement plan in iCCM.

Table 6.2: Implementation matrix

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
Key Result Area (KRA)1 Human Resources for Health							
Support interventions to ensure availability of adequate, skilled and knowledgeable human resources for provision of quality iCCM services at community level	Capacity building on iCCM implementation	Hold orientation meetings/workshops for stakeholders on the 2022 iCCM guidelines to support implementation (Three national level and across all 47 counties)	X	X	X	X	X
		Conduct Periodic/ scheduled / refresher iCCM trainings of 48,000 CHVs/ CHAs/, CHOs/CHEWS				X	
		Technical Assistance for (30 National TOTS and 15 County TOTs in each of the 47 counties) training in the Counties using the 2022 iCCM guidelines for 12 days (5 days TOTs training and 7days teach back in a CHVs training)	X	X	X	X	X
		Train 5,000 link health facility health care workers on iCCM	X	X	X	X	X
		Train 35,000 CHVs in the Counties using the 2022 iCCM guidelines (7 days training)	X	X	X	X	X
		Conduct iCCM trainings for the 13,000 CHVs (already trained using 2013 guidelines) using revised guidelines (2022) for 3 days	X	X	X	X	
		Conduct follow up of 35,000 CHVs after training within 3-4 weeks	X	X	X	X	X
		Carry out accreditation and Certification of the trained CHVs (print 35,000 certificates per year)	X	X	X	X	X
		Conduct regular supportive supervision and mentorship across all counties	X	X	X	X	X
	Clinical attachment and mentorship on iCCM	Conduct clinical attachment (in a health facility) and mentorship for CHVs on iCCM for one month	X	X	X	X	X
	Strengthen support supervision at all levels	Conduct training on Supervisory and mentorship skills for CHAs/CHOs/CHEWs)	X	X	X	X	X
		Disseminate 20,000 tool kits on mentorship and supervision for iCCM services across 47 counties	X				
		Establish a database for CHVs trained on iCCM		X	X	X	X
	Advocate for provision of monthly remuneration for CHVs.	Hold advocacy meeting with the health committees at National and county levels for implementation of the community health workforce renumeration framework	X	X	X	X	X

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
Key Result Area (KRA) 2 Health Financing							
To ensure availability of adequate financing for delivery of high impact and quality iCCM services.	Create an enabling environment for increased public private partnership and community involvement in health services provision and finance	Advocate for public private partnership engagement through partnership agreements for iCCM	X	X	X	X	X
	Ensure accountability of iCCM funding	Monitoring and tracking of resources allocated for iCCM services	X	X	X	X	X
		Conducting financial spot checks and audits of iCCM activities	X	X	X	X	X
	Ensure adequate funding for community health	Conduct advocacy meetings with national level for allocation of fund	X	X	X	X	X
		Hold annual stakeholder's forum with health partners for increased iCCM funding	X	X	X	X	X
		Conduct advocacy meetings with county level for allocation of fund	X	X	X	X	X
		Hold meetings with National finance team and county assembly for the ring fencing of funds	X	X	X	X	X
		Advocate for adequate funding for iCCM from the community health budget as per current GAP situation analysis report	X	X	X	X	X
		Advocate for equitable distribution for iCCM funding gaps in the counties as per current Gap situation analysis report	X	X	X	X	X
		Developed iCCM resource mobilization planning.	X	X	X	X	X
		Advocate for social health insurance for households	X	X	X	X	X
		Advocate for social insurance for vulnerable households	X		X		
		Inclusion of iCCM into the County Integrated Development Plans (CIDP), Mid Term Expenditure Framework (MTEF), and Annual Work plans	X	X	X	X	X
	Provide stipend to the CHS providers	Provide stipend to the 48,000 CHS providers	X	X	X	X	X
		Advocate for enactment of CHS bill (National Assembly, Senate and County Assembly) through sensitization of senators and members or county assembly.	X				
		Develop renumeration framework for Community health Work force - Community Health Workforce)	X				
		Advocate for social health insurance for community health workforce (NHIF, Local community-based organization health insurance	X	X	X	X	X

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
	Advocacy for increased iCCM sustained health funding	To advocate for increased GOK funding for iCCM.	X	X	X	X	X
Key Result Area (KRA)3 Health Products and Technologies							
Strengthen systems including procurement, supply chain management to ensure availability of safe and quality essential lifesaving medicines, commodities, equipment and technologies for iCCM services	Capacity building for Community Health workforce and Health Care providers on supply chain management of iCCM commodities	Workshop to develop a simplified training package for community health workforce on commodity management	X	X			
		Train the community health workforce on commodity management of iCCM commodities	X	X			
	Advocate for implementation and rollout of the community commodity tracking tool for stock management	Revision of community commodity tracking tool		X		X	
		Print Community commodity tracking tool	X	X	X	X	X
	Advocate for increased Procurement and safe storage of approved health commodities; essential medicines, equipment and technologies for delivery of quality iCCM services	Fora to advocate on forecasting and quantification of essential medicine, commodities and equipment for iCCM to commodity management committees at all levels	X	X	X	X	X
		Hold annual advocacy meetings with the County health management team to factor in iCCM equipment, commodities and supplies in their procurement plan	X	X	X	X	X
		Hold monthly commodity security committee meetings	X	X	X	X	X
		Conduct annual assessment at counties on the procurement of iCCM equipment, commodities and supplies, as per the National guideline	X	X	X	X	X
		Procure CHVs lockable storage metallic boxes for storage of commodities at home	X				
		Procure CHVs backpacks	X		X		
	Strengthen Pharmacovigilance (PV) and Post Market Surveillance (PMS) at the community level	Training and sensitization of health care providers in link facilities on how to identify and report adverse effects of medicines and suspected product quality issues	X	X			
		Training and sensitization of community health workforce on how to identify and report adverse effects of medicines and suspected product quality issues		X			
		Print PV and PMS tools for reporting to the link facilities		X			

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
		Distribution of PV and PMS tools for reporting to the link facilities		X			
		Sensitization of the community health workforce on how to report using the PV/ PMS USSD code		X			
		Reporting of adverse drug reactions and suspected product quality issues via both the electronic reporting system and the hard copies		X	X	X	X
	Enhance supportive supervision on commodity and supply management for iCCM	Conduct quarterly integrated joint support supervision to monitor rational use of commodity, fill rate and stock management	X	X	X	X	X
Key Result Area (KRA) 4 Health Information							
Strengthen health information management system to ensure collection and management of disaggregated data at community level to inform iCCM implementation	Provide adequate data-collection tools (paper and electronic) at service delivery points.	Procure and distribute electronic equipment for iCCM (Phones & tablets)	X				
	Support implementation of guidelines and standards relating to the harmonization of community health information systems	Dissemination of guidelines and standards relating to the harmonization of community health information management systems to the Counties	X				
	Capacity building of community health work force on data management	Train TOTs in all counties on iCCM reporting tools (electronic and paper based)	X	X	X	X	X
		Training of Community health workforce on iCCM reporting tools	X	X	X	X	X
	Ensure there are review and feedback mechanisms for iCCM data	Conduct quarterly iCCM data quality audits at community level	X	X	X	X	X
		Conduct quarterly integrated support supervision at all levels (County, Sub County, Facility and Community)	X	X	X	X	X
		Conduct quarterly community dialogue days	X	X	X	X	X
		Conduct monthly community action days	X	X	X	X	X
		Conduct monthly iCCM data review meetings	X	X	X	X	X
		Generate reports and share from iCCM best practices	X	X	X	X	X
	Ensure M&E Framework for iCCM implemented, monitored, and evaluated	Conduct midterm assessment of iCCM M&E framework			X		

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
		Conduct End term evaluation of iCCM M&E framework					X
	Documentation of lessons learnt and plan for learning events for sharing	Hold quarterly learning events on iCCM	X	X	X	X	X
Key Result Area (KRA) 5 Leadership and Governance							
To strengthen iCCM stewardship within the sector, across other sectors and partners	Community engagement for demand creation	Develop advocacy packs/ materials for iCCM and disseminate	X	X	X	X	X
		Conduct sensitization of the health management committees (HMC) and Community health committees (CHC) on iCCM implementation	X	X	X	X	X
		Hold quarterly community dialogue at ward level	X	X	X	X	X
		Hold monthly community action days	X	X	X	X	X
	Advocacy for partnership (including Private public partnership).	Conduct Sensitization meetings of stakeholders on iCCM implementation					
	Mid-term and end-term review of iCCM implementation	Conduct mid-term evaluation on iCCM implementation			X		
		Conduct end term evaluation on iCCM implementation					X
		Update of policies and guidelines of any emerging areas/issues			X		X
		Dissemination of policies and guidelines on any emerging areas/issues			X		X
	Effective coordination & communication	Hold quarterly National iCCM TWG/ COE meetings with county regional economic blocks represented	X	X	X	X	X
		Develop joint annual workplan on iCCM activities at all National and county levels	X	X	X	X	X
	Facilitation of regular meetings	Advocate for child health focal person representation in TWGs in the counties-where iCCM issues can be articulated	X	X	X	X	X
Key Result Area (KRA) 6 Health Research and Development							
To promote research in health to guide policy formulation and action to improve health and development.	Integrate research plan and capacity building initiatives for national and county levels	Build up on the existing research repository at department level to include iCCM activities. (Kenya Health Research Observatory)	X	X	X	X	X
		Establishment of a health research coordination structure.	X				
		Carry out Operational research for iCCM implementation at all levels	X	X	X	X	X

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
		Utilize the research findings to generate policy brief(s)	X	X	X	X	X
	Investment in research and evidence generation for effective policy and programme development	Hold meetings / workshops to strengthen strategic partnerships and networks to support the national research agenda.	X	X	X	X	X
		Establishment of a structured mechanism to synthesize and communicate research findings.	X	X	X	X	X
		Identifying of innovative products for iCCM implementation.	X		X		X
		Adoption and adaptation of innovative products for iCCM.	X	X	X	X	X
		Establish and operationalize a resource mobilization committee.	X	X	X	X	X
		Carry out situation analysis to identify research gaps that will inform the research priority agendas in iCCM.	X		X		X
		Advocate for use of research findings to guide policy development and review	X		X		X
		Set priority for iCCM research agendas.	X	X	X	X	X
	Research linkages with academic and research institutions	Establish and operationalize a research linkage mechanism with academic and research institutions.					
		Establish a research linkage mechanism with National Division of Research and innovation.	X				
		Establish a joint working framework between the national and counties on research.	X				
		Create opportunities to engage students, interns, and residents in research within the department.	X	X	X	X	X
		Hold learning exchange / benchmarking visits and share best practices.	X	X	X	X	X
		Documentation of iCCM success stories.	X	X	X	X	X
Key Result Area (KRA) 7 Service delivery							
Create an enabling environment for provision of quality iCCM services	Operationalization of the revised implementation framework & guidelines	Preparation for the national launch of the iCCM implementation framework, guidelines and tools	X				
		Hold national launch of the iCCM implementation framework, guidelines and tools	X				
		Preparation for regional dissemination workshops for the 47 counties	X				
		Hold 8 regional dissemination workshops for the 47 counties	X				

Strategic Objectives (s)	Proposed Strategies	Activities	Year				
			1	2	3	4	5
		Advocate for Resource mobilization for implementation of iCCM	X	X	X	X	X
	Support establishment of effective referral systems at community to facility, and facility to community (including private and public) for provision of quality and timely iCCM services	Community organized transport for referral	X	X	X	X	X
		Advocate for harmonious work relationship between HR at the community (CHAs, CHVs) and the link health facility	X	X	X	X	X
	Increase access to quality integrated community case management (iCCM) services as per the national guidelines.	Avail iCCM training guidelines and tools for capacity building	X	X	X	X	X
		Advocate for timely procurement and replenishment of iCCM commodities	X	X	X	X	X
		Advocate for Identification of facility based clinical health care worker to work with CHVs		X	X		
		Conduct advocacy communication and social mobilization (ACSM)for iCCM by use of technologies, IEC Materials and targeted advocacy, use of IEC materials in local language and service messaging		X	X		
	Establishment and implementation of quality improvement plan in iCCM	Develop and disseminate quality improvement guidelines for iCCM		X	X		
		Advocate for establishment of work improvement teams in the community			X	X	
		Advocate for quarterly county and sub county joint support supervision	X	X	X	X	X
		Conduct integrated joint support supervision bi-annually (National, County and Partners)		X		X	
		Quarterly meetings to review quality improvement		X	X	X	X

7 Chapter 7: Resource requirements for implementation of iCCM.

The implementation of the iCCM framework requires that all interventions or activities per key result area, are costed. This chapter describes in detail the level of resource requirements for the strategic plan period, the available resources and the gap between what is anticipated and what is required. The estimates will help guide and inform the annual planning, but also prepare the country to ensure that resource mobilization.

7. 1 Resource Requirements for iCCM Framework

The iCCM framework was costed using the Activity-Based Costing (ABC) approach. The ABC uses a bottom-up, input-based approach, indicating the cost of all inputs required to achieve plan targets. ABC is a process that allocates costs of inputs based on each activity, it attempts to identify what causes the cost to change (cost drivers). All costs of activities were traced to the product or service for which the activities are performed. The flow of the methodology under the ABC approach will be as follows:

i. The activities require **inputs**, such as labour, conference hall etc.
ii. These inputs are required in certain **quantities**, and with certain **frequencies**.
iii. It is the product of the **unit cost**, the **quantity**, and the **frequency** of the input that will give the **total input cost.**
iv. The sum of all the input costs gives the **Activity Cost.** These are added up to arrive at the **Output Cost**, the **Objective Cost**, and **eventually the budget.**

The costing employed the following steps:

i. Identified activities
ii. Determined cost for each activity
iii. Determined cost drivers
iv. Collection of activity data
v. Calculation of product cost

7.2 Summary cost estimates for the iCCM Framework

From the costing, KES 11.63 billion is required to finance the framework over the plan period as shown in Figure 7.1. The resources need varies across years with year 2 requiring the highest amount at KES 2.67 billion with year 5 requiring the least at KES 1.98 billion. The resource requirement for the strategy across the strategic objectives per year are shown in Table 8.1. More details on the cost per activity are included in Annex II.

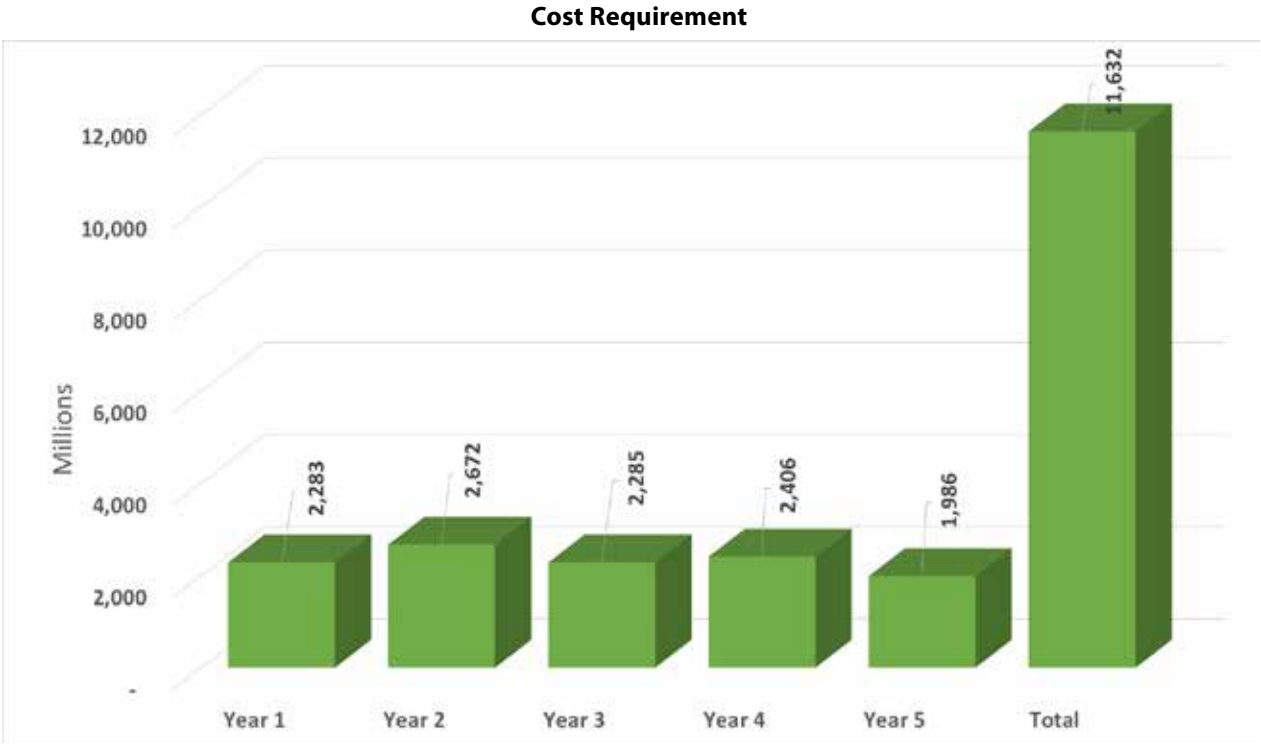

Figure 7.1: iCCM Strategy Resource needs in KES Millions

Table 7.1: Cost estimates for the iCCM Framework by Key Result Areas (KES)

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost	%
KRA 1. Human Resources for Health	668,047,550	732,982,109	748,630,910	816,470,561	731,522,461	3,697,653,591	31.8%
KRA 2. Health Financing	115,615,900	59,920,077	61,355,798	62,708,098	64,150,384	363,750,256	3.1%
KRA 3. Health Products and Technologies	202,503,650	817,466,461	84,235,642	576,209,854	88,155,043	1,768,570,651	15.2%
KRA 4. Health Information	582,741,520	239,904,262	280,798,926	251,066,767	293,864,220	1,648,375,695	14.2%
KRA 5. Leadership and Governance	274,398,008	280,709,162	298,825,068	286,245,268	309,001,246	1,449,178,752	12.5%
KRA 6. Health Research and Development	131,225,700	46,267,016	149,374,601	48,419,774	154,640,398	529,927,490	4.6%
KRA 7. Service Delivery	308,228,580	495,137,023	661,512,666	365,338,133	344,720,569	2,174,936,971	18.7%
Grand Total	**2,282,760,908**	**2,672,386,111**	**2,284,733,611**	**2,406,458,456**	**1,986,054,320**	**11,632,393,406**	**100.0%**

Source: Activity Based Costing

7.3 Available Resources

With an understanding of how the health systems and services are financed, programmes and resources can be better directed to strategically complement the health financing already in place, advocate for financing of health priorities, and aid populations to access available health services. Besides the general funding commitments to Community Health Services, no counties have financing earmarked for iCCM. Additionally, there are no data on/or commitments made by the partners on future funding for comprehensive implementation of Community Health Services and iCCM.

Notably, within the current MTEF- (FY2021/22-FY2023/24), Community Health Services are bundled under the Primary Health Care sub-program (Preventive, Promotive and RMNCAH Program) and the Pre-Service and In-Service training sub-program (Research and Development Program). The specific allocations to Community Health Services, and iCCM are thus not disaggregated for an accurate estimate of the funding available for the said services. Consequently, this hinders proper estimation of the funding gap. As a corollary, the lack of disaggregation of the budget lines for Community Health Services (and iCCM) in the sector program budgets/ MTEF limits the visibility of the said services at policy level. The estimated resources availability for iCCM estimated from the government spending is KES 360 million[31] annually, with an assumption of annual increase of 10 percent giving a total projected available funding of KES 2.2 billion for 5 years.

7.4 Financial Gap Analysis

The difference between the resource requirements and the available resource-based budgets provides a measure of the gap in funding that exists and can impede the full implementation of the iCCM Framework. The identification of the funding gap provides an opportunity for potential stakeholders to see where additional resources will be most useful. This costed iCCM strategy will be used as a resources mobilization tool to advocate for funding toward achievement of the aspirations of this strategic framework. From the above analysis with the current findings level the strategy presents a projected financial Gap of KES, 9.4 billion over the 5 years' period of the strategy implementation as shown in Figure 7.2.

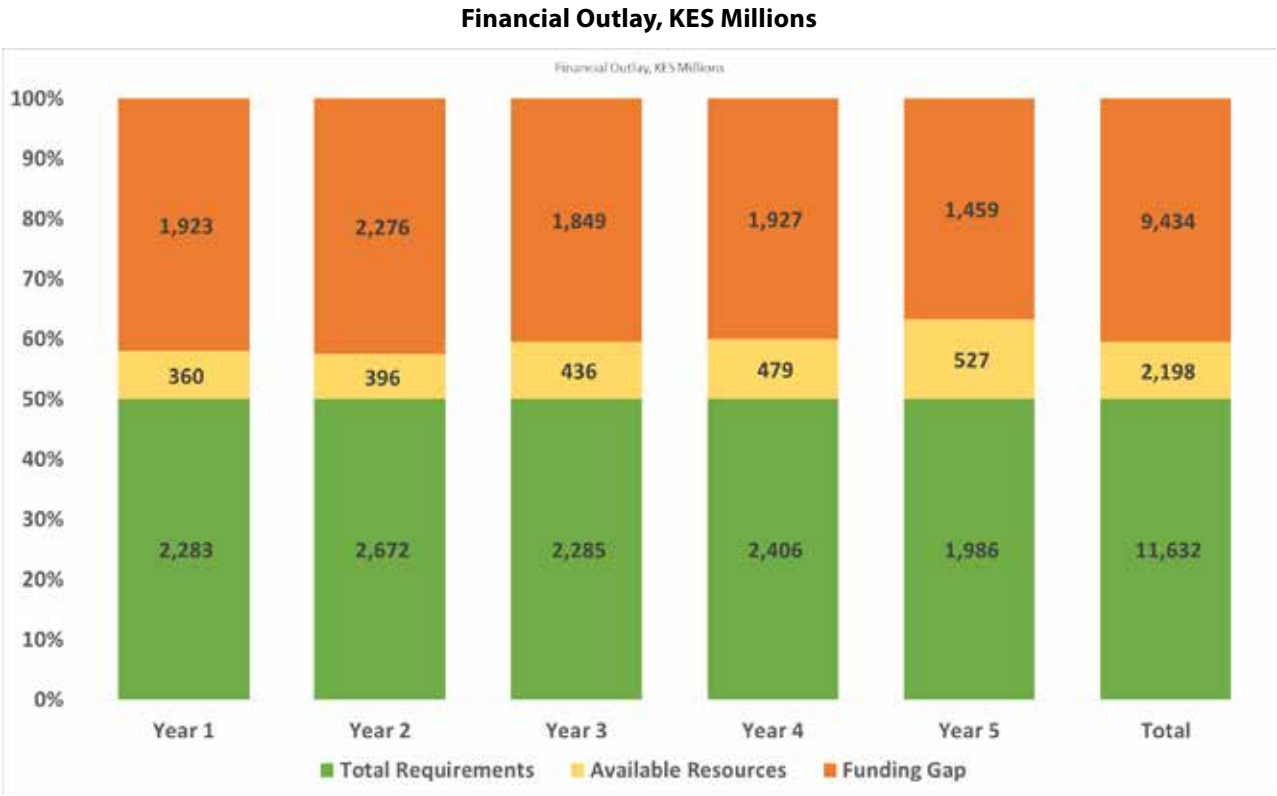

Figure 7.2 Financial gap analysis for iCCM Framework (KES, millions)

31 Printed government budget estimates.

7.5 Strategies for resource sustainability

i. Lobbying for a legislative framework in the county assembly for resource mobilization and allocation
ii. Identification of potential stakeholders and the respective support
iii. Involve the partners during resource mobilization meetings
iv. Identification, appointment, and accreditation of eminent persons in the community as resource mobilization good will ambassadors
v. Capacity and Demand Management: Optimize resource utilization by prioritizing high value work with available resource capacity
vi. Resource Utilization: Ensure that the right resources are available to support the strategic goals
vii. Progress and Time Tracking: Ensure that progress can be tracked, which can be especially valuable when using time tracking. Compare planned effort vs. actual effort to improve estimates and better understand where your resources are truly spending their time.

7.6 Strategies to ensure efficiency in resource utilization

i. Thorough joint planning for utilization of the allocated resources
ii. Continuous monitoring of impact process indicators
iii. Periodically evaluate objectives, to find out if they have been achieved as planned.
iv. Ownership and commitment by the stakeholders
v. Ensure that the National iCCM secretariat is active and delivering on its mandate.

8 Chapter 8: Monitoring & Evaluation, Accountability and Learning

8.1 Introduction to M&E

Monitoring, Evaluation, Accountability and Learning (MEAL) involves tracking the progress of programs, making adjustments and assessing the outcomes in alignment with the Theory of Change (TOC) - a comprehensive description and illustration of how and why a desired change is expected to happen. The M&E framework provides the basis for identifying what type of intervention will lead to the outcomes identified for achieving the overall goal.

The iCCM M&E plan seeks to guide the tracking of the overall rollout of the national iCCM strategy. The plan will guide establishment of a coordinated, harmonized monitoring and evaluation for iCCM.

8.2 Goals and Objectives of the iCCM M&E Plan

The goal of the iCCM M&E plan is to guide monitoring and evaluation of the iCCM framework and plan of action 2022-2027 implementation. The framework was developed with the overall aim of contributing to a reduction of morbidity and mortality among children under-5. This will be achieved through provision of quality community case management of malaria, pneumonia, diarrhea, malnutrition, identification and referral of sick neonates.

Specific Objectives of the M&E Plan:

i. To guide monitoring and evaluation of iCCM implementation
ii. To guide monitoring and evaluation of scale up of iCCM
iii. To guide monitoring and evaluation of the quality of iCCM services

8.3 Indicators

There are seven key results areas (components) to be implemented under this framework and are based on the building blocks of the health system[32]. These are: (i) Leadership and Governance, (ii) Human Resources for Health, (iii) Service Delivery, (iv) Health Products and Technologies (including infrastructure), (v) Health Financing, (vi) Health Research, (vii) Health Information System (including M&E).

The iCCM indicators can be divided into several categories to measure the different aspects of the national iCCM program. These include:

i. **Routine indicators collected through the Community Health Information System;**

   CHIS/eCHIS is part of the Kenya Health Information System (KHIS). These are also some of the indicators that can show how the iCCM program is functioning. They are mainly output indicators that help us measure service delivery (provision & utilization). For iCCM service delivery there is need for availability

32 World Health Organization (WHO). Everybody's business - strengthening health systems to improve health outcomes: WHO's framework for action. WHO; Geneva: 2007. http://www.who.int/healthsystems/strategy/everybodys_business.pdf

and accessibility of; a trained CHV who requires supplies (medicines, equipment and tools), and regular support supervision. See Table 8.1 for further details.

Table 8.1 Routine indicators that convey service delivery information

Indicator	Definition	Baseline	Target	Persons responsible	Frequency of data collection	Data sources
Service delivery						
Proportion of diarrhoea cases treated with ORS/Zinc	Numerator: Number of diarrhoea cases treated with ORS/Zinc Denominator: Number of diarrhoea cases identified in children 2 months up to 5 years	93%	100%	Counties, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521
Proportion of children (2 months up to 5 years) with fever for less than 7 days who are tested with mRDTs at community level	Numerator: Number of children (2 months up to 5 years) in target areas who present with fever of less than 7 days and who are tested with an mRDT Denominator: Number of children (2 months up to 5 years) under five in target areas presenting with fever of less than 7 days	62%	100%	Counties, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521
Proportion of children (2 months up to 5 years) tested with mRDT who test positive.	Numerator: Number of children (2 months up to 5 years) in target areas who a positive mRDT result Denominator: Number of children (2 months up to 5 years) who are tested with an mRDT	72%	TBD	Counties, Division of Malaria Control, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521
Proportion of children (2 months up to 5 years) with a positive mRDT result treated with ACT	Numerator: Number of children (2 months up to 5 years) treated with an ACT Denominator: Number of children (2 months up to 5 years) with a positive mRDT result	95%	100%	Counties, Division of Malaria Control, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521
Proportion of children (2 months up to 5 years) tested with mRDT whose result is invalid (inconclusive test result).	Numerator: Number of children (2 months up to 5 years) under five in target areas who have an invalid (inconclusive result) Denominator: Number of children (2 months up to 5 years) who are tested with an mRDT	NA (new indicator)	0%	Counties, Division of Malaria Control, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521

Indicator	Definition	Baseline	Target	Persons responsible	Frequency of data collection	Data sources
Proportion of children (2 months up to 5 years) with fast breathing (Uncomplicated pneumonia) treated with Amoxicillin DT	Numerator: Number of children (2 months up to 5 years) with fast breathing (Uncomplicated pneumonia) treated with Amoxicillin DT Denominator: Number of children (2 months up to 5 years) with fast breathing (Uncomplicated pneumonia)	NA (new indicator)	100%	Counties, CHA, CHV	Monthly	KHIS MOH 514 MOH 515 MOH 521
Proportion of newborns who received a home visit from a CHV within 48 hours of delivery	Numerator: Number of newborns who received a home visit from a CHV within 48 hours of delivery Denominator: Total number of newborns	72%	100%	Counties, CHA, CHV	Monthly	KHIS MOH 514 MOH 515
Proportion of newborns (up to 2 months) referred to a link health facility	Numerator: Number of newborns (up to 2 months) referred to a health facility Denominator: Total number of newborns (up to 2 months) assessed using the newborn checklist		TBD	CHAs, CHVs, facility in-charge.	Monthly	KHIS MOH 100
Proportion of community health units submitting timely reports	Numerator: Number of CHUs submitting reports by 15th of every month Denominator: All CHUs that are expected to report	81%	100%	Counties, CHA, CHV	Monthly	KHIS MOH 515

ii. **Indicators that can be potentially collected routinely, but through systems other than the CHIS/ eCHIS**

These are indicators that are collected through surveys and such as: the malaria indicator surveys, quality of care surveys, Harmonized Health Facility Assessment (HHFA). These are indicators that communicate on the quality of care that is being provided and most are through case observation at a link health facility. See Table 8.2 for further information.

Table 8.2 Indicators collected through other health surveys

Indicator	Definition	Baseline*	Target	Persons Responsible	Frequency of data collection	Data sources
Human resources for health						
Proportion of Counties with CHMTs sensitized on iCCM	Numerator: Number of Counties with CHMTs sensitized on iCCM Denominator: Total number of counties (47)	68%	100	DNCH	Once	Sensitization reports
Proportion of Counties with iCCM TOTs	Numerator: Number of Counties with iCCM TOTs Denominator: Total number of counties (47)	68%	100	DNCH	Annual	Training reports
Proportion of CHVs targeted for iCCM who are trained on iCCM	Numerator: Number of CHVs targeted for iCCM who have completed training in iCCM Denominator: Number of CHVs targeted for iCCM	17%	60	DNCH	Annual	AWPs Training reports
Proportion of CHVs trained on iCCM who are providing iCCM services	Numerator: Number of CHVs trained on iCCM who have provided iCCM services (managing malaria, diarrhea, pneumonia, malnutrition and newborn cases according to protocol) in the last 3 months Denominator: Number of CHVs trained on iCCM	NAD	100	DNCH; DCH	Quarterly/ Annual	CHW survey
Proportion of CHAs targeted for iCCM who are trained on iCCM	Numerator: Number of CHAs targeted for iCCM who have completed training in iCCM Denominator: Number of CHAs targeted for iCCM	NAD	100	DNCH	Annual	AWPs Training reports
Proportion of targeted Health Care Providers trained on iCCM	Numerator: Number of Health care providers targeted for iCCM who have completed training in iCCM Denominator: Number of Health Care Providers targeted for iCCM	NAD	100	DNCH	Annual	AWPs Training reports
Quality of iCCM services						
Proportion of CHVs trained on iCCM who received at least one supervisory contact in the last three months during which registers and/or reports were reviewed.	Numerator; Number of CHVs supervised Denominator: Number of CHVs	NAD	100%	CHA, Link Health facility, CHMT, SCHMT, DNCH	Quarterly/ Episodic	Supportive supervision (CHMT), direct observation and surveys

Indicator	Definition	Baseline*	Target	Persons Responsible	Frequency of data collection	Data sources
Proportion of CHAs trained on iCCM who received at least one supervisory contact in the prior three months during which registers and/or reports were reviewed.	Numerator; Number of CHAs supervised Denominator: Number of CHAs	NAD	100%	CHA, Link Health facility, CHMT, SCHMT, DNCH	Quarterly/ Episodic	Supportive supervision (CHMT), direct observation and surveys
Proportion of CHVs trained on iCCM who received at least one supervisory contact during the prior three months where a sick child visit or case scenario was assessed and coaching was provided by an iCCM supervisor.	Numerator; Number of CHVs supervised Denominator: Number of CHVs	NAD	100%	CHA, Link Health facility, CHMT, SCHMT, DNCH	Quarterly/ Episodic	Supportive supervision report, direct observation and surveys
Proportion of CHAs trained on iCCM who received at least one supervisory contact during the prior three months where a sick child visit or scenario was assessed and coaching was provided by an iCCM supervisor.	Numerator; Number of CHAs supervised Denominator: Number of CHAs	NAD	100%	CHA, Link Health facility, CHMT, SCHMT, DNCH	Quarterly/ Episodic	Supportive supervision report, direct observation and surveys
Proportion of CHVs whose registers show completeness and consistency between classification and treatment	Numerator: Number of CHVs whose registers show completeness and consistency between classification and treatment for at least four out of five cases reviewed Denominator: Number of CHVs assessed	NAD	100%	CHAs, facility in-charge	Quarterly	CHV supervision checklist/ CHA report) Community Health survey
Proportion of CHVs who correctly count respiratory rate	Numerator: Number of CHVs who correctly count the respiratory rate of live case, supervisor, community infant. Denominator: Number of CHVs assessed	NAD	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision CHV survey
Proportion of CHVs who correctly take children's MUAC measurements	Numerator: Number of CHVs who demonstrate correct use of MUAC Denominator: Number of CHVs assessed	NAD	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision survey
Proportion of CHVs who correctly assess children for swelling of both feet (oedema).	Numerator: Number of CHVs who correctly assess children (6-59 months) for swelling of both feet (oedema) Denominator: Number of CHVs assessed	NAD	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision survey

Indicator	Definition	Baseline*	Target	Persons Responsible	Frequency of data collection	Data sources
Proportion of counties reporting on iCCM activities.	Numerator: Number of counties reporting on iCCM activities. Denominator: All counties implementing iCCM	NAD	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision survey / KHIS
Proportion of counties reporting on iCCM in a complete manner.	Numerator: Number of counties providing complete iCCM data. Denominator: All counties implementating iCCM	81%	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision survey / KHIS
Proportion of Community Health Units, conducting quarterly data quality audits on iCCM activities.	Numerator: Number of community health units conducting quarterly iCCM data quality audits Denominator: All community health units' implementation iCCM	NAD	100%	DNCH; CHMT; SCHMT; Link facility in charge; CHA	Quarterly/ Episodic	Supportive supervision survey
Number of national data quality audits on iCCM activities.	Number of national data quality audits on iCCM activities.	0	4	DNCH; HIS; DCH	Bi-annually (twice a year)	
Number of county data quality audits on iCCM activities.	Number of county data quality audits on iCCM activities.	0	4	DNCH; CHMT	Quarterly	
Proportion of sick children (2 months up to 5 years) referred to the health facility.	Numerator: Number of sick children (2 months up to 5 years) with danger signs who are referred by CHV to the referral facility Denominator: Total number of sick children (2 months up to 5 years) with danger signs referred by a CHV.	NAD	100%	CHAs, facility in-charge, other	Quarterly, episodic	Referral/ counter referral forms; (MoH 100
Proportion of sick children (2 months up to 5 years) recieved at the health facility.	Numerator: Number of sick children (2 months up to 5 years) with danger signs who are received at the health facility Denominator: Total number of sick children (2 months up to 5 years) with danger signs referred by a CHV.	NAD	100%	CHAs, facility in-charge, other	Quarterly, episodic	Referral/ counter referral forms; (MoH 100
Proportion of children (2 months up to 5 years) followed up after receiving treatment from CHV according iCCM guidelines	Numerator: Number of children (2 months up to 5 years) followed up according to protocol after receiving treatment from CHV in target area Denominator: Total number of cases receiving treatment from CHV in target area	NAD	100%	CHAs, facility in-charge	Quarterly, episodic	Referral/ counter referral forms; MoH 100

Indicator	Definition	Baseline*	Target	Persons Responsible	Frequency of data collection	Data sources
Health Products Technologies						
Proportion of link facilities that had no stock out of recommended medicine and diagnostics during the day of assessment visit or last day of reporting period,	Numerator: Number of link facilities with all key iCCM medicines and diagnostics in stock (ACTs, ORS, zinc, mRDTs, timer, Amoxicillin DT for fast breathing pneumonia infection) during the last assessment/observation visit or the last day of a reporting period. Denominator: Number of link facilities assessed in target areas	New indicator	100%	Collection: CHAs; facility in-charge; pharmaceutical Compile: sub-county pharmacists	Monthly/ quarterly/ episodic	Supportive supervision (CHMT), direct observation and surveys
Proportion of CHU who had no stock out of recommended medicine and diagnostics during the day of assessment visit.	Numerator: Number of CHUs with all key medicines and diagnostics (ACTs, ORS, zinc, mRDTs, Amoxicillin DT for fast breathing pneumonia) in stock during the last assessment/observation visit or the last day of a reporting period. Denominator: Total number of CHUs assessed	New indicator	100%	Collection: CHAs; facility in-charge; pharmaceutical Compile: sub-county pharmacists	Monthly/ quarterly/ episodic	Supportive supervision (CHMT), direct observation
Percentage time out of stock for a set of 25 iCCM commodities in CHUs.	Percentage of time out of stock is defined as the percentage of days during a one-month period that an iCCM commodity has been out of stock (based on stock control records). Numerator: Sum of days in which any of the iCCM commodity was not available in a month Denominator: The product of number of days per month (averaged as 30) and the number of iCCM commodities = 750; (i.e., 30 days×25 tracer medicines)	New indicator	0%	CHA, Link Health facility in charge, Sub-County, County Pharmacists	Monthly/ quarterly/ episodic	Stock control records

*NAD – no available data; KHIS data January to December 2021

iii. **Indicators that represent national level milestones**

These indicators are qualitative and can be used to periodically assess progress towards creating a conducive environment for iCCM implementation. They are described in Table 8.3.

Table 8.3: National level milestone indicators

iCCM indicator	Definition	Target	Persons Responsible	Frequency of data collection	Data sources
iCCM reviewed to include management of all relevant conditions within iCCM scope in Kenya	Yes: National policy guidelines have been adopted and reviewed to allow CHVs to provide treatment in line with WHO recommendations, for all relevant conditions as in table 3.1 Scope of iCCM in Kenya. Partial: National policy guidelines have been adopted to allow CHVs to provide treatment in line with WHO recommendations, for at least one but not all relevant conditions. No: No national policy guidelines exist that support iCCM in line with WHO recommendations	Yes	National iCCM TWG	Once	MOH policy, strategy or guide-line
An iCCM stakeholder coordination group led by the MoH and including key stakeholders, exists and meets quarterly to coordinate iCCM activities.	Yes: MOH-led iCCM stakeholder group established and meeting as outlined in terms of reference (TOR), or if no TOR exists, at a minimum of twice per year Partial: MOH-led iCCM stakeholder group established but meets less than twice per year (0-1 meetings) No: MOH-led iCCM	Yes (quarterly mtgs)	Secretariate (DNCH)	Annual	TWG meeting minutes
List/mapping of iCCM partners, activities and locations available and up to date	Yes: List/map of all known sites where iCCM is being implemented, by whom and for which condition (diarrhea, pneumonia, or malaria) is available and updated within the last year Partial: List/map of some or all known iCCM partners, activities and locations available but not updated within the last year No: List/map of iCCM partners, activities and locations not available	Yes (national & county)	DNCH County Department for Health	Annual	DNCH & CHMT partner mapping matrix
A costed annual work plan for iCCM exists and updated annually.	Yes: A costed iCCM annual work plan for all relevant iCCM conditions (as specified by country policy or implementation status) exists (or is part of a broader health operational plan) and has been updated within the past year Partial; a) A costed iCCM operational plan exists (or is part of a broader health operational plan), including at least one but not all relevant iCCM conditions, and has been updated within the past year; OR b) A costed iCCM work plan exists (or is part of a broader health operational plan) including at least one relevant iCCM condition, but is not updated within the past year No: No costed plans for iCCM are available for any relevant health condition	Yes (national, county & sub-county)	DNCH CHMT SCHMT	Annual	Annual work plans

Percentage of the total annual iCCM budget which comes from domestic (Government, Household, Private sector) funding sources	Numerator: Total annual public budgeted funding (MOH, county, and sub-county budgets) allocated to iCCM Denominator: Total annual budgeted funding allocated to RMNCAH program (public plus international donors)	6%	DNCH CHMT SCHMT	Annual	AWP and gap analysis tool; Annual Expenditure Reports
Existence of a comprehensive, integrated monitoring and evaluation (M&E) plan for iCCM	Yes: An M&E plan for iCCM has all the critical components (listed below) and covers all relevant iCCM conditions. Components may be country defined but should ideally include the following: Program goals and objectives; Indicators to be measured; How (tools), how often(frequency) and where the indicator data (at what level) will be collected (methodologies); Dissemination/use of information (how often and to what levels) Partial: M&E plan exists but has only some of the above critical components or does not cover all iCCM conditions No: Plan has no critical components or there is no written M&E plan that covers iCCM	Yes (by 2012)	DNCH	Annual	M&E plans and documents
Indicators for community-based treatment for diarrhoea, pneumonia and/or malaria are included in KHIS.	Yes: One or more iCCM indicator is included in the national HMIS system and disaggregated by level No: No recommended iCCM indicators are included in national HMIS, or are included but not disaggregated by level.	Yes	DNCH	Annual	HMIS tools and reports

8.4 Data collection for iCCM indicators

Data Demand and Information Use strategy will be used to identify opportunities for and constraints to effective and strategic data collection, analysis, availability, and use at both demand and supply sides. The main data collection methods required to capture the iCCM indicators data include:

i. Routine sources (such as; e-CHIS, KHIS, project reports, government databases and supervision reports)
ii. Periodic surveys such as household surveys, harmonized health facility assessments and CHV surveys; and
iii. Complementary data collection methods (such as: desk reviews, focused group discussions and key informants' interviews.

The two categories of data collection processes are described in this section:

8.4.1 Routine Data Collection

The routine indicators for iCCM can be collected through the CHV Treatment and Tracking Register (MOH 521), CHV Household Register (MOH 513), CHA Supervision Checklist and CHV Service Delivery Log Book (MOH 514). They are summarized by the monthly CHEW/CHA Report (MOH 515), Referral Form (MOH 100) which is entered into the national eCHIS/KHIS. Other important sources of routine information include the CHMT supervision checklist and government databases on training. The information collected by these key tools is summarized in Table 8.4.

Table 8.4 Routine data collection tools and the information that they collect

Tool	Information collected
iCCM follow up/ Support Supervision Checklist	• Collect data on iCCM case management of the sick Children under 5 years of age. It is used during direct case observation
Community Commodity tool	• Collects data on receipt and consumption of Community Health commodities, including those for iCCM.
Resource Database on Community Health Program (to Assess CHV Training)	• Collects data on the training provided to CHVs; needs to be updated to reflect iCCM human resource training status
Other Logistics, Supply Chain Tools: CHV Inventory control card; CHA Stock control (Bin card); CHA requisition, Issue and Order Voucher; CHA re-Supply register	• These are logistic and supply tools which allow the CHV and CHA to keep track of the medicinal and diagnostic products they are using on sick children.

8.4.2 Periodic/Survey Data Collection

Several indicators for iCCM can be collected through periodic surveys. The main types of surveys and the information that can be gathered are highlighted in Table 8.5. These surveys are critical to help understand program coverage and provide an important source of information to help triangulate data collected through routine sources.

Table 8.5 Periodic surveys and the data they collect

Periodic Surveys/Tools for Special Studies	Information that can be collected
National Household Surveys (KDHS, Malaria Indicator Survey (MIS), Multiple Indicator Cluster Survey (MICs)	• Collect information on treatment coverage, caregiver knowledge on existence of CHVs, caregiver knowledge on danger signs related to iCCM, caregiver care-seeking behaviours. As these surveys are large scale and resource intensive, they are only implemented every 3-5 years.
Link health Facility Assessments	• Capture information on service delivery, availability of supplies and equipment, supervision coverage, knowledge and skills. Special studies to assess quality of care
Community health surveys	• Capture information on service delivery, availability of supplies and equipment, supervision coverage, knowledge and skills.
Population Census Data	• Collect information on key denominators for children under 5
Qualitative Tools (Focus Group Discussions and Key Informant Interviews)	• Can be used to assess care-seeking behaviours of caregivers, other special studies related to the research questions identified

8.4.3 Complementary Methods:

Several indicators, especially the qualitative national milestone indicators, require complimentary sources such as document reviews, key informant interviews and focus group discussions as outlined in Table 8.6.

Table 8.6 Qualitative data collection tools

Periodic Surveys/Tools for Special Studies	Information to be Collected
Document Review	• Information on policies, strategies, plans at all levels,
Key Informant Interviews	• Information on policies, strategies, plans and the extent of their implementation; important source of triangulation for document review
Focus Group Discussions	• Information to assess extent of implementation at the different levels; important source of triangulation for document review

8.5 Implementation of M&E for iCCM

8.5.1 Coordination of iCCM M&E Plan

Monitoring of the iCCM program at the national level will be coordinated by DNCH in collaboration with DCH. This coordination mechanism will ensure that partner resources contribute to the overall national iCCM M&E plan and avoid duplication of efforts.

At the county level, iCCM M&E will be coordinated County Neonatal and Child Health focal person in collaboration with County Community Health focal person, under the guidance of the County Director of Health with support from implementing partners and the National level.

8.6 Data Quality Assurance

Mechanisms to routinely assess and enhance data quality will be implemented at all levels of the system. CHVs will be trained on how to record data and report on management of iCCM conditions and how to maintain accurate and up-to-date stock records. The CHVs will be supervised regularly by CHAs, who will review records and validate reports to ensure data accuracy and completeness and reinforce good practices. Similarly, link facilities will be oriented on how to review and validate monthly data reported by CHAs so that errors and problem areas can be identified and resolved at the lowest levels. At the sub-county and county levels, staff responsible for monitoring iCCM will be trained to assess data submitted by facilities for completeness and perform basic quality checks.

In addition to routine data quality checks, efforts will be made to conduct periodic data quality assessments (DQA). These DQAs will help determine the availability, completeness and quality of the data and assess the use of iCCM data in program management and decision making.

Use of program monitoring data for decision-making will also be encouraged through regular review meetings at multiple levels to assess the progress of iCCM implementation by identifying opportunities, challenges and looking for solutions. Experience sharing and dissemination of success stories, good practices and lessons learnt are addressed in such meetings. Review meetings will be held at national and county level at least once a year and at sub-county level at least twice in a year involving relevant stakeholders. Proceedings of the reviews are expected to be disseminated to all levels timely. Table 5.1 defines the specific roles and responsibilities the various levels to ensure smooth flow of information and supervision.

8.7 Evaluation Plan

8.7.1 Outcome indicators

The main indicators to assess the outcome of the iCCM program in Kenya are outlined in Table 8.7, along with the data source and targets. Most of these indicators pertain to care-seeking and treatment for childhood illness and can be measured through a household survey with interviews of caregivers of children who have experienced childhood illnesses that are within the scope of iCCM in the two weeks preceding the survey.

Measuring compliance with referral from a CHV will require a special study to track those referred and determine whether they receive care at the referral facility.

Table 8.7: Outcome indicators, definitions and data sources

Indicator	Definition	Data source & Frequency of reporting	Baseline*	Target By 2027
Treatment Coverage (overall)	Percentage of sick children who received timely and appropriate treatment according to specific protocol (reported separately by iCCM condition) Malaria (ACTs within 24 hours) Diarrhoea (ORS and zinc within 24 hours) Pneumonia (Amoxicillin DT within 24 hours)	Household survey; episodic (baseline, 2-3 years later)	NAD	100%

First Source of Care	Proportion of sick children under five in iCCM target areas taken to iCCM-trained CHVs as first source of care.	Household survey; episodic (baseline, 2-3 years later)	NAD	80%
Successful Referral	Proportion of sick children recommended for referral who were received at the referral facility (based on the CHV referral form-MoH 100)	Routine data & Special study of referrals	NAD	100%
Proportion of caregivers in target areas who know the presence and role of their CHV.	Numerator: Number of caregivers of children under five from target communities who can describe the location of a CHV in their community, and the role and iCCM services provided by that CHV Denominator: Total number of caregivers of children under five interviewed from target communities	Household surveys	NAD	80%
Proportion of caregivers who know two or more signs of childhood illness that require immediate assessment and treatment.	Numerator: Number of caregivers of children under five interviewed who can correctly state 2 or more signs of childhood illness that require immediate assessment and treatment Denominator: Number of caregivers of children under five interviewed	Household surveys	NAD	100%

*NAD – no available data

8.8 Implementation Capacity

There is need to assess capacity to implement iCCM M&E. Some considerations to make for this assessment include: Human resource, infrastructure, tools and staff readiness for M&E and financial support. iCCM focusses on the community level, and as such the immediate priority will be to strengthen the capacity of CHVs and CHAs to collect, manage and use data to improve the delivery of community-based services.

8.8.1 Implementation Research and Special Studies

The research key results area in the iCCM implementation shall be used to improve access to cost effective high impact neonatal and child health interventions. It will also be used to developing practical solutions to critical challenges in the implementation of these interventions. The objectives to be addressed within the framework shall include the following:

i. Identification of research agenda for iCCM;
ii. Identification of possible solutions to the identified challenges
iii. Implementation of feasible and sustainable solutions with periodic monitoring to allow for any modification and facilitate scale –up.

The Ministry of Health in collaboration with partners, academic institutions, research agencies and any other stakeholders with research capacity to support iCCM research agenda.

8.9 Dissemination and use of information for learning

The main audience for dissemination of iCCM M&E information constitute a wide range of stakeholders at all levels (National, County, Sub-county). Dissemination of iCCM information will be embedded within the existing community health program and will include publication and distribution of quarterly and annual reports, program newsletters, policy briefs, and information sharing through national and international meetings and conferences. In addition, routine iCCM data captured through the KHIS will be available online for real-time access and analysis at the desired level of disaggregation. It is envisioned that this data will facilitate evidence informed decision making, resource mobilization and planning.

8.10 Detailed M&E Action Plan and Resources

The Plan of Action found in the National iCCM framework provides an overview of main activities, timelines and budget for iCCM M&E at national, county and sub-county levels. This M&E Action plan will be reviewed and updated every three years under the stewardship of the iCCM TWG.

9. ANNEXES

9.1 Annex I: List of iCCM commodities

S. No	Category	iCCM list of commodities and equipment	
	Medicines	**Item description**	**Unit of measure**
1		Zinc/ ORS Co-Pack	Packs
2		Albendazole 400mg (Dewormers)	Tablets
3		Mebendazole 100mg (Dewormers)	Tablets
4		Vitamin A (100, 000 IU)	Tablets
5		Vitamin A (200, 000 IU)	Tablets
6		Tetracycline Eye Ointment 1%	Tubes
7		Paracetamol Tablets, 500mg	Tablets
8		Artemether-Lumefantrine 20/120 Tabs 6s	Tablets
9		Artemether-Lumefantrine 20/120 Tabs 12s	Tablets
10		Artemether-Lumefantrine 20/120 Tabs 18s	Tablets
11		Artemether-Lumefantrine 20/120 Tabs 24s	Tablets
12		ORS	Satchet
13		Zinc Sulphate	Satchet
14		Antibiotics (Amoxicillin 250mg DT)	Tablet
15		Paracetamol Junior	Bottles
16	**Equipment**	MUAC tape	No.
17		Respiratory timers	No.
18		Salter scale	No.
19		Digital thermometer	No.
20		mRDTs (Malaria Test Kit)	Kits
21	**Others**	Buffer solution	No.
22		IEC material	No.
23		Medical Dispensing Envelopes	Packs
24		Clean gloves	No.
25		Cotton wool	Rolls
26		CHV Bag	

9.2 Annex II: Cost Requirement by strategic Intervention (KES)

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
KRA 1. Human Resources for Health	**668,047,550**	**732,982,109**	**748,630,910**	**816,470,561**	**731,522,461**	**3,697,653,591**
Strategic Objective 1.1. Support interventions to ensure availability of adequate, skilled and knowledgeable human resources for provision of quality iCCM services at community level	668,047,550	732,982,109	748,630,910	816,470,561	731,522,461	**3,697,653,591**
Strategy 1.1.1. Capacity building on iCCM implementation	296,445,550	296,696,138	304,744,588	387,584,252	292,771,768	**1,578,242,295**
Activity 1.1.1.1. Hold orientation meetings/workshop's for stakeholders on the 2022 iCCM guidelines to support implementation	44,939,550	44,776,250	47,030,542	46,859,644	47,945,630	**231,551,615**
Activity 1.1.1.10. Conduct Periodic/ scheduled / refresher iCCM trainings of CHVs/ CHAs/,CHOs/CHEWS	-	-	-	77,083,140	-	**77,083,140**
Activity 1.1.1.2. Technical Assistance for TOTS training in the Counties using the 2022 iCCM guidelines for 12 days (5 days TOTs training and 7days teach back in a CHVs training)	104,125,000	106,519,875	108,969,832	111,476,138	114,040,089	**545,130,935**
Activity 1.1.1.3. Train the link health facility health care workers on iCCM	2,320,000	2,373,360	2,427,947	2,483,790	2,540,917	**12,146,015**
Activity 1.1.1.4. Train CHVs in the Counties using the 2022 iCCM guidelines (7 days training)	57,300,000	58,617,900	59,966,112	61,345,332	57,499,205	**294,728,549**
Activity 1.1.1.5. Conduct iCCM trainings for CHVs (already trained using 2013 guidelines) using revised guidelines (2022) for 3 days	17,916,000	18,328,068	18,749,614	19,180,855	-	**74,174,536**
Activity 1.1.1.6. conduct follow up of CHVs after training within 3-4 weeks	20,000	20,460	20,931	21,412	21,904	**104,707**
Activity 1.1.1.7. Carry out accreditation and Certification of the trained CHVs	6,650,000	1,432,200	1,465,141	1,498,839	1,533,312	**12,579,492**
Activity 1.1.1.8. Carry out accreditation and Certification of the trained CHVs	52,500,000	53,707,500	54,942,773	56,206,456	57,499,205	**274,855,934**
Activity 1.1.1.9. Conduct regular supportive supervision and mentorship	10,675,000	10,920,525	11,171,697	11,428,646	11,691,505	**55,887,373**
Strategy 1.1.2. Clinical attachment and mentorship on iCCM	72,000,000	73,656,000	75,350,088	77,083,140	78,856,052	**376,945,280**
Activity 1.1.2.1. Conduct clinical attachment (in a health facility) and mentorship for CHVs on iCCM for one month	72,000,000	73,656,000	75,350,088	77,083,140	78,856,052	**376,945,280**
Strategy 1.1.3. Strengthen support supervision at all levels	299,505,000	337,417,113	342,743,480	350,626,580	358,690,992	**1,688,983,165**
Activity 1.1.3.1. conduct training on Supervisory and mentorship skills for CHAs/CHOs/ CHEWs)	292,505,000	299,232,615	306,114,965	313,155,609	320,358,188	**1,531,366,378**
Activity 1.1.3.2. Disseminate tool kits on mentorship and supervision for iCCM services	7,000,000	-	-	-	-	**7,000,000**
Activity 1.1.3.3. Establish a database for CHVs trained on iCCM	-	38,184,498	36,628,515	37,470,971	38,332,803	**150,616,787**
Strategy 1.1.4. Advocate for provision of monthly remuneration for CHVs.	97,000	25,212,858	25,792,754	1,176,588	1,203,650	**53,482,850**
Activity 1.1.4.1. Hold advocacy meeting with the health committees at National and county levels for implementation of the community health workforce renumeration framework	97,000	25,212,858	25,792,754	1,176,588	1,203,650	**53,482,850**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
KRA 2. Health Financing	**115,615,900**	**59,920,077**	**61,355,798**	**62,708,098**	**64,150,384**	**363,750,256**
Strategic Objective 2.1. To ensure availability of adequate financing for delivery of high impact and quality iCCM services.	115,615,900	59,920,077	61,355,798	62,708,098	64,150,384	**363,750,256**
Strategy 2.1.1. Create an enabling environment for increased public private partnership and community involvement in health services provision and finance	4,812,000	374,418	383,030	391,839	400,852	**6,362,139**
Activity 2.1.1.1. Advocate for public private partnership engagement through partnership agreements for iCCM	4,812,000	374,418	383,030	391,839	400,852	**6,362,139**
Strategy 2.1.2. Ensure accountability of iCCM funding	15,666,000	16,026,318	16,394,923	16,772,007	17,157,763	**82,017,011**
Activity 2.1.2.1. Monitoring and tracking of resources allocated for iCCM services	13,862,000	14,180,826	14,506,985	14,840,646	15,181,981	**72,572,437**
Activity 2.1.2.2 Conducting financial spot checks and audits of iCCM activities	1,804,000	1,845,492	1,887,938	1,931,361	1,975,782	**9,444,573**
Strategy 2.1.3. Ensure adequate funding for community health	21,100,900	21,529,956	22,082,704	22,531,723	23,049,953	**110,295,235**
Activity 2.1.3.1 Conduct advocacy meetings with national level for allocation of fund	31,000	31,713	32,442	33,189	33,952	**162,296**
Activity 2.1.3.10. Hold annual stakeholders forum with health partners for increased iCCM funding	2,606,000	2,665,938	2,727,255	2,789,981	2,854,151	**13,643,325**
Activity 2.1.3.2 Conduct advocacy meetings with county level for allocation of fund	2,867,000	2,932,941	3,000,399	3,069,408	3,140,004	**15,009,752**
Activity 2.1.3.3 Hold meetings with National finance team and county assembly for the ring fencing of funds	4,091,500	4,185,605	4,281,873	4,380,356	4,481,105	**21,420,439**
Activity 2.1.3.4 Advocate for adequate funding for iCCM from the community health budget as per current GAP situation analysis report	265,200	271,300	277,539	283,923	290,453	**1,388,415**
Activity 2.1.3.5 Advocate for equitable distribution for iCCM funding gaps in the counties as per current Gap situation analysis report.	5,217,000	5,336,991	5,459,742	5,585,316	5,713,778	**27,312,827**
Activity 2.1.3.6 Develop iCCM resource mobilization planning.	10,000	10,230	10,465	10,706	10,952	**52,354**
Activity 2.1.3.7 Advocate for social health insurance for households	526,400	538,507	550,893	563,563	576,525	**2,755,889**
Activity 2.1.3.7 Advocate for social insurance for households	5,000,800	5,115,818	5,233,482	5,353,852	5,476,991	**26,180,944**
Activity 2.1.3.8. Advocate for social insurance for vulnerable households	55,000	-	57,559	-	-	**112,559**
Activity 2.1.3.9. Inclusion of iCCM into the County Integrated Development Plans (CIDP), Mid Term Expenditure Framework (MTEF), and Annual Work plans	431,000	440,913	451,054	461,428	472,041	**2,256,436**
Strategy 2.1.4. Provide Stipend to the CHS providers	73,551,000	21,492,207	21,986,528	22,492,218	23,009,539	**162,531,492**
Activity 2.1.4.1. Advocate for enactment of CHS bill (National Assembly, Senate and County Assembly) through sensitization of senators and members or county assembly.	48,240,000	-	-	-	-	**48,240,000**
Activity 2.1.4.2. Develop renumeration framework for Community health Work force - Community Health Workforce)	4,302,000	-	-	-	-	**4,302,000**
Activity 2.1.4.3. Advocate for social health insurance for community health workforce (NHIF, Local community based organisation health insurance)	21,009,000	21,492,207	21,986,528	22,492,218	23,009,539	**109,989,492**
Strategy 2.1.5. Advocacy for increased iCCM sustained health funding.	486,000	497,178	508,613	520,311	532,278	**2,544,381**
Activity 2.1.5.1. To advocate for increased GOK funding for iCCM.	486,000	497,178	508,613	520,311	532,278	**2,544,381**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
KRA 3. Health Products and Technologies	**202,503,650**	**817,466,461**	**84,235,642**	**576,209,854**	**88,155,043**	**1,768,570,651**
Strategic Objective 3.1. Strengthen systems including procurement, supply chain management to ensure availability of safe and quality essential lifesaving medicines, commodities, equipment and technologies for iCCM services	202,503,650	817,466,461	84,235,642	576,209,854	88,155,043	**1,768,570,651**
Strategy 3.1.1. Capacity building for Community Health workforce and Health Care providers on supply chain management of iCCM commodities	23,428,650	12,130,990	-	-	-	**35,559,640**
Activity 3.1.1.1. Workshop to develop a simplified training package for community health workforce on commodity management	3,880,350	1,630,099	-	-	-	**5,510,449**
Activity 3.1.1.2. Train the community health workforce on commodity management of iCCM commodities	19,548,300	10,500,890	-	-	-	**30,049,190**
Strategy 3.1.2. Advocate for implementation and rollout of the community commodity tracking tool for stock management	15,000,000	483,594,606	15,697,935	506,095,779	16,428,344	**1,036,816,665**
Activity 3.1.2.1. Revision of community commodity tracking tool	-	468,249,606	-	490,036,792	-	**958,286,398**
Activity 3.1.2.2. Print Community commodity tracking tool	15,000,000	15,345,000	15,697,935	16,058,988	16,428,344	**78,530,267**
Strategy 3.1.3. Advocate for increased Procurement and safe storage of approved health commodities; essential medicines, equipment and technologies for delivery of quality iCCM services	114,999,700	53,707,193	54,942,459	56,206,135	57,498,876	**337,354,363**
Activity 3.1.3.1. Fora to advocate on forecasting and quantification of essential medicine, commodities and equipment for iCCM to commodity management committees at all levels	17,870,100	18,281,112	18,701,578	19,131,714	19,571,744	**93,556,248**
Activity 3.1.3.2. Hold annual advocacy meetings with the County health management team to factor in iCCM equipment, commodities and supplies in their procurement plan	5,170,000	5,288,910	5,410,555	5,534,998	5,662,303	**27,066,765**
Activity 3.1.3.3. Hold monthly commodity security committee meetings	-	-	-	-	-	**-**
Activity 3.1.3.4. Conduct annual assessment at counties on the procurement of iCCM equipment, commodities and supplies, as per the National guideline	29,459,600	30,137,171	30,830,326	31,539,423	32,264,830	**154,231,350**
Activity 3.1.3.5. Procure CHVs lockable storage metalic boxes for storage of commodities at home	62,500,000	-	-	-	-	**62,500,000**
Activity 3.1.3.6. Procure CHVs backpacks	-	-	-	-	-	**-**
Strategy 3.1.4. Strengthen Pharmacovigilance (PV) and Post Market Surveillance (PMS) at the community level	36,272,500	254,936,408	196,747	201,273	205,902	**291,812,830**
Activity 3.1.4.1. Training and sensitization of health care providers in link facilities on how to identify and report adverse effects of medicines and suspected product quality issues	36,272,500	37,106,768	-	-	-	**73,379,268**
Activity 3.1.4.2. Training and sensitization of community health workforce on how to identify and report adverse effects of medicines and suspected product quality issues	-	150,480,436	-	-	-	**150,480,436**
Activity 3.1.4.3. Print PV and PMS tools for reporting to the link facilities	-	2,557,500	-	-	-	**2,557,500**
Activity 3.1.4.4. Distribution of PV and PMS tools for reporting to the link facilities	-	48,081	-	-	-	**48,081**
Activity 3.1.4.5. Sensitization of the community health workforce on how to report using the PV/PMS USSD code	-	64,551,300	-	-	-	**64,551,300**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Activity 3.1.4.6. Reporting of adverse drug reactions and suspected product quality issues via both the electronic reporting system and the hard copies	-	192,324	196,747	201,273	205,902	**796,246**
Strategy 3.1.5. Enhance supportive supervision on commodity and supply management for iCCM	12,802,800	13,097,264	13,398,501	13,706,667	14,021,920	**67,027,153**
Activity 3.1.5.1. Conduct quarterly integrated joint support supervision to monitor rational use of commodity, fill rate and stock management	12,802,800	13,097,264	13,398,501	13,706,667	14,021,920	**67,027,153**
KRA 4. Health Information	**582,741,520**	**239,904,262**	**280,798,926**	**251,066,767**	**293,864,220**	**1,648,375,695**
Strategic Objective 4.1. Strengthen health information management system to ensure collection and management of disaggregated data at community level to inform iCCM implementation	582,741,520	239,904,262	280,798,926	251,066,767	293,864,220	**1,648,375,695**
Strategy 4.1.4. Ensure there are review and feedback mechanisms for iCCM data	107,345,800	109,814,753	112,340,493	114,924,324	117,567,584	**561,992,954**
Activity 4.1.4.1. Conduct quarterly iCCM data quality audits at community level	75,000,000	76,725,000	78,489,675	80,294,938	82,141,721	**392,651,334**
Activity 4.1.4.2. Conduct quarterly integrated support supervision at all levels (County, Sub County, Facility and Community)	3,929,200	4,019,572	4,112,022	4,206,598	4,303,350	**20,570,742**
Activity 4.1.4.3. Conduct quarterly community dialogue days	13,364,800	13,672,190	13,986,651	14,308,344	14,637,436	**69,969,421**
Activity 4.1.4.4. Conduct monthly community action days	7,500,000	7,672,500	7,848,968	8,029,494	8,214,172	**39,265,133**
Activity 4.1.4.5. Conduct monthly iCCM data review meetings	7,551,800	7,725,491	7,903,178	8,084,951	8,270,905	**39,536,325**
Activity 4.1.4.6. Generate reports and share from iCCM best practices	-	-	-	-	-	**-**
Strategy 4.1.5. M&E Framework for iCCM implemented, monitored and evaluated	-	-	35,376,866	-	37,022,917	**72,399,783**
Activity 4.1.5.1. Conduct mid-term assessment of iCCM M&E framework	-	-	35,376,866	-	-	**35,376,866**
Activity 4.1.5.2.Conduct End term evaluation of iCCM M&E framework	-	-	-	-	37,022,917	**37,022,917**
Strategy 4.1.6. Documentation of lessons learnt and plan for learning events for sharing.	-	-	-	-	-	**-**
Activity 4.1.6.1. Hold quarterly learning events on iCCM	-	-	-	-	-	**-**
Strategy 4.1.1. Provide adequate data-collection tools (paper and electronic) at service delivery points.	345,051,000	-	-	-	-	**345,051,000**
Activity 4.1.1.1. Procure and distribute electronic equipment for iCCM(Phones & tablets)	300,000,000	-	-	-	-	**300,000,000**
Activity 4.1.1.1. Procure and distribute electronic equipment for iCCM(Smart Phones & tablets)	45,051,000	-	-	-	-	**45,051,000**
Strategy 4.1.2. Support implementation of guidelines and standards relating to the harmonization of community health information systems.	3,180,000	-	-	-	-	**3,180,000**
Activity 4.1.2.1. Dissemination of guidelines and standards relating to the harmonization of community health information management systems to the Counties	3,180,000	-	-	-	-	**3,180,000**
Strategy 4.1.3. Capacity building of community health work force on data management	127,164,720	130,089,509	133,081,567	136,142,443	139,273,719	**665,751,959**
Activity 4.1.3.1. Train TOTs in all counties on iCCM reporting tools(electronic and paper based)	8,873,820	9,077,918	9,286,710	9,500,304	9,718,811	**46,457,563**
Activity 4.1.3.2. Training of Community health workforce on iCCM reporting tools	118,290,900	121,011,591	123,794,857	126,642,139	129,554,908	**619,294,395**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
KRA 5. Leadership and Governance	**274,398,008**	**280,709,162**	**298,825,068**	**286,245,268**	**309,001,246**	**1,449,178,752**
Strategic Objective 5.1. To strengthen collaboration with private and other sectors that influence health	274,398,008	280,709,162	298,825,068	286,245,268	309,001,246	**1,449,178,752**
Strategy 5.1.1. Community engagement for demand creation	219,831,104	224,887,219	224,964,302	227,825,987	233,065,984	**1,130,574,596**
Activity 5.1.1.1. Develop advocacy packs/ materials for iCCM and disseminate	7,056,784	7,219,090	2,289,805	29,977	30,666	**16,626,323**
Activity 5.1.1.2. conduct sensitization of the Health management committees (HMC) and Community health committees (CHC) on iCCM implementation	5,354,320	5,477,469	5,603,451	5,732,331	5,864,174	**28,031,745**
Activity 5.1.1.3. hold quarterly community dialogue at ward level	193,420,000	197,868,660	202,419,639	207,075,291	211,838,023	**1,012,621,613**
Activity 5.1.1.4. Hold monthly community action days	14,000,000	14,322,000	14,651,406	14,988,388	15,333,121	**73,294,916**
Strategy 5.1.2. Advocacy for partnership (including Private public partnership).	41,132,004	42,078,040	43,045,835	44,035,889	45,048,715	**215,340,483**
Activity 5.1.2.1. conduct Sensitization meetings of stakeholders on iCCM implementation	41,132,004	42,078,040	43,045,835	44,035,889	45,048,715	**215,340,483**
Strategy 5.1.3. Mid-term and end-term review of iCCM implementation	-	-	16,754,919	-	16,172,336	**32,927,255**
Activity 5.1.3.1. Conduct mid-term evaluation on iCCM implementation	-	-	14,197,882	-	5,667,384	**19,865,267**
Activity 5.1.3.2. Conduct end term evaluation on iCCM implementation	-	-	-	-	5,848,994	**5,848,994**
Activity 5.1.3.3. Update of policies and guidelines of any emerging areas/issues	-	-	2,557,037	-	1,380,145	**3,937,182**
Activity 5.1.3.4. dissemination of policies and guidelines on any emerging areas/issues	-	-	-	-	3,275,812	**3,275,812**
Strategy 5.1.4. Effective communication	12,384,900	12,669,753	12,961,157	13,259,264	13,564,227	**64,839,300**
Activity 5.1.4.1. Hold quarterly National iCCM TWG/ COE meetings	914,000	935,022	956,528	978,528	1,001,034	**4,785,111**
Activity 5.1.4.2. Hold national iCCM TWG / COE meetings with county regional economic blocks represented	2,866,000	2,931,918	2,999,352	3,068,337	3,138,909	**15,004,516**
Activity 5.1.4.3. Develop joint annual workplan on iCCM activities at all National and county levels	8,604,900	8,802,813	9,005,277	9,212,399	9,424,284	**45,049,673**
Strategy 5.1.5. Facilitation of regular meetings.	1,050,000	1,074,150	1,098,855	1,124,129	1,149,984	**5,497,119**
Activity 5.1.5.1. Advocate for child health focal person representation in TWGs in the counties-where iCCM issues can be articulated	1,050,000	1,074,150	1,098,855	1,124,129	1,149,984	**5,497,119**
KRA 6. Health Research and Development	**131,225,700**	**46,267,016**	**149,374,601**	**48,419,774**	**154,640,398**	**529,927,490**
Strategic Objective 6.1. To promote research in health to guide policy formulation and action to improve health and development.	131,225,700	46,267,016	149,374,601	48,419,774	154,640,398	**529,927,490**
Strategy 6.1.1. Integrate research plan and capacity building initiatives for national and county levels	251,000	2,463,384	13,319,551	2,578,003	13,187,974	**31,799,912**
Activity 6.1.1.1. Build up on the existing research repository at department level to include iCCM activities. (Kenya Health Research Observatory)	223,000	228,129	233,376	238,744	244,235	**1,167,483**
Activity 6.1.1.2. Establishment of a health research coordination structure.	20,000	-	-	-	-	**20,000**
Activity 6.1.1.3. Carry out Operational research for iCCM implementation at all levels	-	-	13,086,175	-	12,943,739	**26,029,914**
Activity 6.1.1.4. Utilize the research findings to generate policy brief(s)	8,000	2,235,255	-	2,339,259	-	**4,582,514**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Strategy 6.1.2. Investment in research and evidence generation for effective policy and programme development	122,791,000	36,396,089	128,477,133	38,089,563	133,521,915	**459,275,700**
Activity 6.1.1.1. Hold meetings / workshops' to strengthen strategic partnerships and networks to support the national research agenda.	-	113,553	-	118,837	-	**232,390**
Activity 6.1.2.1. Hold meetings / workshops to strengthen strategic partnerships and networks to support the national research agenda.	852,000	-	891,643	-	-	**1,743,643**
Activity 6.1.2.2. Establishment of a structured mechanism to synthesize and communicate research findings.	70,000	86,955	88,955	91,001	93,094	**430,005**
Activity 6.1.2.3. Identifying of innovative products for iCCM implementation.	10,200,000	-	10,674,596	-	11,171,274	**32,045,870**
Activity 6.1.2.4. Adoption and adaptation of innovative products for iCCM	36,733,100	35,118,362	38,442,254	36,752,385	40,230,934	**187,277,036**
Activity 6.1.2.5. Establish a resource mobilization committee	554,000	524,799	536,869	549,217	561,849	**2,726,735**
Activity 6.1.2.6. Carry out situation analysis to identify research gaps that will inform the research priority agendas in iCCM	73,324,900	-	76,736,634	-	80,307,113	**230,368,647**
Activity 6.1.2.7. Advocate for use of research findings to guide policy development and review	517,000	-	541,055	-	566,230	**1,624,286**
Activity 6.1.2.8.Set priority for iCCM research agendas	540,000	552,420	565,126	578,124	591,420	**2,827,090**
Strategy 6.1.3. Research linkages with academic and research institutions	8,183,700	7,407,543	7,577,916	7,752,209	7,930,509	**38,851,877**
Activity 6.1.2.1. Establish a research linkage mechanism with academic and research institutions	212,000	186,186	190,468	194,849	199,331	**982,834**
Activity 6.1.3.1. Establish a research linkage mechanism with academic and research institutions	513,000	-	-	-	-	**513,000**
Activity 6.1.3.2. Establish a research linkage mechanism with National Division of Research and innovation	30,000	-	-	-	-	**30,000**
Activity 6.1.3.3. Establish a joint working framework between the national and counties on research	369,700	-	-	-	-	**369,700**
Activity 6.1.3.4. Create opportunities to engage students, interns and residents in research within the department.	-	-	-	-	-	**-**
Activity 6.1.3.5. Hold learning exchange / benchmarking visits and share best practices	3,533,000	3,614,259	3,697,387	3,782,427	3,869,423	**18,496,495**
Activity 6.1.3.6. Documentation of iCCM success stories	3,526,000	3,607,098	3,690,061	3,774,933	3,861,756	**18,459,848**
KRA 7. Service Delivery	**308,228,580**	**495,137,023**	**661,512,666**	**365,338,133**	**344,720,569**	**2,174,936,971**
Strategic Objective7.1. Create an enabling environment for provision of quality iCCM services	308,228,580	495,137,023	661,512,666	365,338,133	344,720,569	**2,174,936,971**
Strategy 7.1.2. Support effective referral systems at community to facility, and referral back to community.	294,660,000	399,748,759	408,942,980	315,462,751	322,718,394	**1,741,532,883**
Activity 7.1.2.1. Community organized transport for referral	75,000,000	76,725,000	78,489,675	80,294,938	82,141,721	**392,651,334**
Activity 7.1.2.2. Advocate for harmonious work relationship between HR at the community (CHAs, CHVs) and the link health facility	219,660,000	323,023,759	330,453,305	235,167,813	240,576,673	**1,348,881,550**

KRA	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Strategy 7.1.1. Operationalization of the revised implementation framework & guidelines	11,859,360	339,636	347,448	355,439	363,614	**13,265,497**
Activity 7.1.1.1 Preparation for the national launch of the iCCM implementation framework, guidelines and tools	1,204,800	-	-	-	-	**1,204,800**
Activity 7.1.1.2. Hold national launch of the iCCM implementation framework, guidelines and tools	1,027,920	-	-	-	-	**1,027,920**
Activity 7.1.1.3. Preparation for regional dissemination workshops for the 47 counties	221,520	-	-	-	-	**221,520**
Activity 7.1.1.3. Hold 8 regional dissemination workshops for the 47 counties	9,073,120	-	-	-	-	**9,073,120**
Activity 7.1.1.4. Advocate for Resource mobilization for implementation of iCCM	332,000	339,636	347,448	355,439	363,614	**1,738,137**
Strategy 7.1.3. Increase access to quality integrated community case management (iCCM) services as per the national guidelines.	1,234,520	33,483,875	64,801,348	1,321,676	1,352,075	**102,193,494**
Activity 7.1.3.1. Avail iCCM training guidelines and tools for capacity building	-	-	-	-	-	**-**
Activity 7.1.3.2. Advocate for timely procurement and replenishment of iCCM commodities	1,234,520	1,262,914	1,291,961	1,321,676	1,352,075	**6,463,146**
Activity 7.1.3.3. Advocate for Identification of facility based clinical health care worker to work with CHVs	-	28,129,984	28,776,973	-	-	**56,906,957**
Activity 7.1.3.4. Conduct advocacy communication and social mobilization (ACSM)for iCCM by use of technologies, IEC Materials and targeted advocacy, use of IEC materials in local language and service messaging	-	4,090,977	34,732,414	-	-	**38,823,391**
Strategy 7.1.4. Establishment and implementation of quality improvement plan in iCCM	474,700	61,564,754	187,420,890	48,198,267	20,286,486	**317,945,098**
Activity 7.1.3.1. Develop and disseminate quality improvement guidelines for iCCM	-	854,205	10,775,063	-	-	**11,629,268**
Activity 7.1.4.1. Develop and disseminate quality improvement guidelines for iCCM	-	16,419,866	155,456,022	-	-	**171,875,888**
Activity 7.1.4.2. Advocate for establishment of work improvement teams in the community	-	-	1,805,263	1,846,784	-	**3,652,046**
Activity 7.1.4.3. Advocate for quarterly county and sub county joint support supervision	474,700	485,618	496,787	508,213	519,902	**2,485,221**
Activity 7.1.4.4. Conduct integrated joint support supervision bi annually (National, County and Partners)	-	25,341,961	-	26,521,097	-	**51,863,057**
Activity 7.1.4.5. Quarterly meetings to review quality improvement	-	18,463,104	18,887,755	19,322,174	19,766,584	**76,439,617**
Grand Total	**2,282,760,908**	**2,672,386,111**	**2,284,733,611**	**2,406,458,456**	**1,986,054,320**	**11,632,393,406**

The activities without any cost are funded from the Community Health docket.

9.3 Annex III: Emergency Operation Centre (EOC) contact numbers for the 47 counties

S/No	County	Contact
1	National (PHEOC)	0729471414/ 0732353535 Email: manager.eockenya@gmail.com
1.	NMS(Nairobi Metropolitan Services)	Toll free 1508 Linked to 0110008608/0110008609/0110008610
2.	Kitui	Toll free 0800721024
3.	Homabay	Toll free 0800721016
4.	Muranga	Toll free 0800721020
5.	Nakuru	Toll free 0800721018
6.	Busia	Toll free 0800721009
7.	Kiambu	Toll free 0800721011
8.	Kisii	Toll free 0800721023
9.	Makueni	Toll free 0800721013
10.	Marsabit	Toll free 0800721015
11.	Kisumu	Toll free 0800720575
12.	Siaya	Toll free 0800721008; 0710463703
13.	Kirinyaga	Toll free 0800721005
14	Narok	0708307139
15	Nandi	Toll free 1548
16	Tharaka Nthi	Toll free 1513
18	Kakamega	Toll free 0800720573
19	Nyamira	0111334156
20	Lamu	Toll free 0800720890
21	Nyeri	Toll free0800721019
22	Kajiado	Toll free 0800721316;0729471414;0732353535
23	Isiolo	0758722011
24	Taita Taveta	0735480405
25	Baringo	0750684644; 0793975045
26	Uasin Gishu	0754027027

9.4 Annex IV: Panel of experts' recommendations on pneumonia management in the community

MINISTRY OF HEALTH
Division of Neonatal and Child Health

Recommendations on community case management of non-severe pneumonia for children under five years by the Panel of Experts

Pneumonia is one of the leading causes of deaths in children under five years old despite being easily preventable and treatable. Although vaccines and other preventive efforts are decreasing the burden of the disease, much more work is still required. Those living in poor communities are at highest risk of pneumonia. Every child, regardless of where they are born, deserves access to lifesaving vaccines and medicines. In an effort to ensure increased, timely, equitable access to treatment of uncomplicated pneumonia for children under five years of age at the household/community level, this Ministry nominated a Panel of Experts who undertook a process of evidence synthesis and generated independent recommendations to inform policy direction. The expert opinion and recommendations are hereby attached.

The Ministry of Health (MoH) urges all parties implementing integrated Community Case Management (iCCM) to adhere to these recommendations with an aim of ensuring provision of quality care at the community level. This will contribute significantly to the reduction of morbidity and mortality among children under five years of age, towards achievement of Universal Health Coverage (UHC), Vision 2030 and the Sustainable Development Goals (SDGs).

Prof. Fred N. Were
Chairman
Panel of Experts

Signature:

Date: 30th Jan 2020

Dr. Patrick Amoth
Ag. Director General
MINISTRY OF HEALTH

Signature:

Date: 28th Jan 2020

2

The Panel of Experts sort to answer two questions **Question 1. Should children aged 2-59 months with chest indrawing pneumonia be treated with oral amoxicillin at the community level?** **Population:** Children aged 2-59 months with non-severe pneumonia with chest indrawing **Intervention:** Community case management by Community Health Workers using oral amoxicillin dispersible tablet (DT)(40-45mg/kg/dose 12 hourly) **Comparator:** Standard of care (Assess and refer to a health facility for further management)	
Recommendation	**Panel decision** ☐ Children aged 2-59 months with chest indrawing pneumonia should **NOT** be treated at the community level. They should be referred immediately to a health facility for treatment. If the child can drink, a pre-referral dose of oral amoxicillin DT 250mg should be given; ○ Age 2 months – up to 12 months: 1 tablet of Amoxicillin DT 250mg ○ Age 12 months up to 5 years: 2 tablets of Amoxicillin DT 250mg and the child be referred immediately to a health facility for treatment. ☐ Despite moderate quality evidence from randomized control trials in Pakistani [1,2]the proportion of deaths due to pneumonia is higher in rural areas than it is in urban areas, with a substantial proportion of individuals dying at home because referral for care is problematic in such areas. We aimed to establish whether community case identification and management of severe pneumonia by oral antibiotics delivered through community health workers has the potential to reduce the number of infants dying at home. METHODS: We did a cluster-randomised controlled trial in Matiari district of rural Sindh, Pakistan. Public-sector lady health workers (LHWs and low quality evidence local evidence from a quasi-experimental study in Homa-Bay [3], the panel agreed unanimously that all children who have chest indrawing pneumonia should be referred to a health facility for management (see Table 1 and 2) ☐ The panel felt that even though WHO had reclassified chest indrawing pneumonia as non-severe pneumonia, the risk of mortality and clinical deterioration was still high and as such warrants facility based management. ☐ The Panel also noted that as per the current integrated Community Case Management (iCCM) guidelines, chest indrawing constitutes one of the danger signs which then automatically requires the child to be referred to health facility and the CHW should be able to explain why referral is necessary.

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9.5 Annex V: PPB approval on use of Amoxicillin DT in the community on the MOH guidelines portal

MINISTRY OF HEALTH
PHARMACY AND POISONS BOARD

Telegram: "MINHEALTH" Nairobi
Telephone: 020-2716905/6, 020-3562107
Cellphone: 0733-884411/0720 608811
Fax: 2713409
Email: admin@pharmacyboardkenya.org
Website: www.pharmacyboardkenya.org

Pharmacy & Poisons Board Hse
Along Lenana Road
P. O. Box 27663-00506
NAIROBI

When replying please quote our ref No:

PPB/MOH/VOL.XI/68/20

4th August, 2020

Director General for Health,
Ministry of Health,
P. O Box 30016-00100,
NAIROBI.

Dear Sir,

RE: REQUEST TO APPROVE USE OF AMOXICILLIN DT 250MG FOR COMMUNITY CASE MANAGEMENT OF PNEUMONIA IN CHILDREN.

Reference is made to the above subject matter and your letter dated 18th February 2020, REF NO: MOH/ADM/1/1/2.

The Pharmacy and Poisons Board (PPB) is cognizant of the current disease burden of Pneumonia among children under five years in Kenya as well as the recommendation for use of Amoxicillin as an effective intervention in the treatment of Pneumonia in children.

The PPB has carefully evaluated the request for approval for community health Volunteers (CHVs) to handle and administer oral Amoxicillin DT 250mg so as to treat children with fast breathing pneumonia at household/community level and recommends as follows;

A program implementation framework should be developed and the following issues should be addressed in the framework;

1. The definition of a community health Volunteer (CHV) in the context of this program, including explicit criteria on who qualifies to be one and the minimum qualifications for recruitment to be CHV.

2. Mechanisms of ensuring supply chain integrity of the products (Amoxicillin DT shall not be distributed with other commodities in the

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CHV-kit, rather it will be supplied directly to link healthcare facilities. The medicine will be issued to CHVs and re-filled at link healthcare facilities only after they receive the requisite training and under supervision of qualified healthcare professional);

3. Commodity management framework detailing the mechanism of reporting consumption and use of the Amoxicillin DT and feedback mechanisms, including who are the actors, information sharing platform and the reporting tools;

4. Clearly defined roles and responsibilities of the health care professionals including the roles of the County and Sub-County Pharmacists and Health facility pharmaceutical personnel;

5. Clear description of health facilities which will be used as distribution points (Link healthcare facilities) and whether all of them are licensed by Pharmacy and Poisons Board.

6. The training course of the CHVs and its validation that should include a module on Pharmacovigilance and the mechanism put in place to identify and report adverse events to the Health Care Providers and PPB;

7. The inclusion of CHVs should be purely for community health care and not for financial empowerment;

8. Involvement of all relevant stakeholders in the iCCM guidelines review process to ensure all aspects of concern are fully addressed;

9. Pilot roll out of the proposed intervention as opposed to full-scale roll out to all the counties, to pilot/start in a few Counties for at least 6 months and document the processes and lessons learnt. The selection of Counties should be guided by consideration of key indicators such as; disease burden, geographical distances (distance to healthcare facilities), far flung counties and socio-economic factors.

Thank you for your continued support and collaboration.

Yours faithfully,

Dr. F. M. Siyoi
CHIEF EXECUTIVE OFFICER

Kw/pm

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Ministry of Health

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unicef for every child

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Save the Children

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