INTEGRATED COMMUNITY CASE MANAGEMENT

A FIVE-YEAR SCALE-UP STRATEGIC PLAN

2017 – 2021
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FOREWORD

Globally, the Integrated Community Case Management (iCCM) has been accepted as an equity-focused strategy to increase access to essential treatment services for sick under-five children in the community. The iCCM strategy is line with our health system in Zambia. Community health workers (CHWs), trained properly by health workers, provide iCCM services in the community. They also identify and assess acute malnutrition in children using mid-upper-arm circumference (MUAC) tape [1]. Our traditional leaders and the community are strategically involved to ensure that sick children access iCCM services for childhood diseases pneumonia, diarrhoea, and malaria in the community. Additionally, the iCCM programme is monitored through the Child Health Community Register to assess the progress and areas of concern, which the Ministry of Health (MoH) need to address so as to continuously inform policy, programme coordination and management during the implementation period.

Several efforts have been made over the years, at both national and sector levels, aimed at reducing mortality and morbidity among under-five children. Resultantly, neonatal, infant and child mortality rates declined significantly since 1992 although not to the levels we expected. There are still weaknesses and gaps which need to be addressed, in order to improve child health in Zambia. Hence, we have prioritised the iCCM scaled-up plan to increase access to essential treatment and prevention of childhood illness in rural communities.

I wish to urge all the stakeholders, the MoH, faith-based organizations under the Churches Health Association of Zambia (CHAZ), communities, and cooperating partners to support the implementation of this plan, which has provided the necessary strategic framework to implement iCCM in the community. The plan will be a significant pillar as we strive toward attaining the Sustainable Development Goal (SDG) 3 for children by 2030.

Honourable Dr. Chitalu Chilufya - MP
MINISTER OF HEALTH
ACKNOWLEDGEMENTS

I am indebted to the World Health Organisation (WHO) for the financial support to develop the Five-Year Integrated Community Case Management (iCCM) Scale-Up Plan 2017 – 2021. I am also grateful to the consultant Dr. Peggy Chibuye for developing this plan. The health of under-five children underpins the health of the nation.

I am grateful to the cooperating partners and local and international non-governmental organisations (NGOs) for supporting the implementation of the iCCM programme in the community since 2010. The health successes we have achieved together thus far are embedded in our strategic partnerships across the programmes which have child health components, and joint commitment to reducing child mortality in Zambia. I also look forward to strengthened partnership with the community as we strive to attain SDG 3 for children by 2030.

The staff in MoH have exhibited leadership since 2010 when the iCCM programme started and now it has been become imperative to scale it up. I would like to take this opportunity to thank them for the hard work they put in this programme sometimes, with limited resources. Their achievement cannot be underestimated and urge them to continue working hard as our country strives to achieve the goal to reduce child mortality in Zambia.

Dr. Jabbin Mulwanda
Permanent Secretary – Health Services
MINISTRY OF HEALTH
EXECUTIVE SUMMARY

The iCCM strategy has been accepted globally as an equity-focused strategy to increase access to lifesaving interventions for sick under-five children in developing countries. It promotes utilisation of Community Health Workers (CHWs) or designated Community Health Volunteers (CHVs) to administer antibiotics to save the lives of under-five children. It is well advanced and has attracted global commitment to reducing mortality of under-five children. In many countries, iCCM is implemented within existing community structures, which previously had been developed for other programmes such as malaria prevention and treatment for diarrhoea, pneumonia and malaria, including prevention of malnutrition. Studies have shown that many children’s lives have been saved through this strategy. Nonetheless, despite the decline in child mortality, countries should do more to reduce neonatal, infant and child mortality rates, which are still high in many developing countries [1].

In Zambia, iCCM has been implemented in existing community structure and the policy has been modified to allow CHWs and Community Health Assistants [CHAs] to administer antibiotics in the community. Furthermore, systems have been put in place to support provision of quality iCCM for sick under-five children. However, the pace to scale-up iCCM of sick children in the community has been slow due to limited funding, which also affects the quality of care due to erratic drug supply for CHWs and CHAs and lack of equipment.

Despite the above shortcomings, considerable progress has been made to scale-up iCCM. The implementation started with four districts in 2012, the programme expanded to 65 out of 105 districts in 2016. Nonetheless, only 4,711 out of the target 11,229 CHWs have been trained since 2010. This means many sick children do not have access to lifesaving treatment in communities where there are no trained CHWs while many parents continue to seek this service in the community.

This Five-Year iCCM Scale-Up Plan 2017 – 2021 reflects a renewed commitment by MoH and its partners to scale-up iCCM services by improving treatment and offer prevention services for neonates and children age 1 month to five years in the community. This plan will be operationalised through training more CHWs, promoting strategic involvement of traditional leaders and the community, strong coordination and management of the programme at all levels, aiming for both impact and equity; and ensuring that sick neonates and children age 1 month to five years access care and treatment as early as possible. It will further increase the participation of cooperating partners and NGOs at all levels in prevention and treatment services toward reducing mortality and improve child survival. The goal, objectives, strategies and activities in this plan assure implementation of a comprehensive quality iCCM programme for children and families toward attaining SGD 3 by 2030.
### ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ACT</td>
<td>Artemisinin-based Combination Therapy</td>
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<td>BCC</td>
<td>Behaviour Change Communication</td>
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<tr>
<td>CCM</td>
<td>Community Case Management</td>
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<td>CHA</td>
<td>Community Health Assistant</td>
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<td>CHAZ</td>
<td>Churches Association of Zambia</td>
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<td>CHV</td>
<td>Community Health Volunteer</td>
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<td>CHW</td>
<td>Community Health Worker</td>
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<td>DDMU</td>
<td>Disaster Management Mitigation Unit</td>
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<td>DHO</td>
<td>District Health Office</td>
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<td>ECD</td>
<td>Early Childhood Development</td>
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<td>HCC</td>
<td>Health Centre Committee</td>
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<td>HIMS</td>
<td>Health Management Information System</td>
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<td>HIV</td>
<td>Human Immunodeficiency Virus</td>
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<td>iCCM</td>
<td>Integrated Community Case Management</td>
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<tr>
<td>ICT</td>
<td>Information Communication Technology</td>
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<tr>
<td>IEC</td>
<td>Information Education Communication</td>
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<tr>
<td>IMCI</td>
<td>Integrated Management of Childhood Illness</td>
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<td>IPT</td>
<td>Intermittent Presumptive Treatment</td>
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<td>IRS</td>
<td>Indoor Residual Spraying</td>
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<td>ITN</td>
<td>Insecticide-treated nets</td>
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<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
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<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>MUAC</td>
<td>Mid-Upper-Arm Circumference</td>
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<td>NCD</td>
<td>Non-communicable Disease</td>
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<td>NHC</td>
<td>Neighbourhood Health Committee</td>
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<td>NGO</td>
<td>Non-governmental Organisation</td>
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<td>ORS</td>
<td>Oral Rehydration Salt</td>
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<td>PATH</td>
<td>Programme for Appropriate Technology in Health</td>
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<td>PCI</td>
<td>Project Concern International</td>
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<td>PHC</td>
<td>Primary Health Care</td>
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<td>Provincial Health Office</td>
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<td>SBH</td>
<td>Systems for Better Health</td>
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<td>SDG</td>
<td>Sustainable Development Goal</td>
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<td>SMAG</td>
<td>Safe Motherhood Action Group</td>
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<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>SOP</td>
<td>Standard Operational Procedure</td>
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<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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1. Introduction

The iCCM is an equity-focused strategy to improve access to essential treatment services for sick under-five children in the community [1, 2, 3]. The services should be provided by properly trained and supervised CHWs to diagnose and treat multiple preventable illnesses pneumonia, diarrhoea and malaria in the community where access to facility-based services is limited [1, 2, 3, 4]. The iCCM strategy focuses on access to quality of, and demand for community case management (CCM) services, seeks support of decision-makers, traditional leaders, health care providers and community members, and is operationalised in tandem with improvements in the health system [2]. The iCCM also enables CHWs to identify children with acute malnutrition using the assessment of MUAC [1]. Additionally, properly trained CHWs should be supported with regular supply of medicines, and equipment [1, 2].

However, despite that under-five mortality has declined worldwide [1, 3, 4], 75% of the deaths are still caused by common preventable conditions pneumonia, diarrhea, malaria, and newborn conditions [3] and 35% of these deaths are associated with nutrition-related factors [5]. Seemingly, in most countries with high child mortality rates, facility-based services alone do not provide adequate access to treatment [6, 7], and “… most importantly, not within the crucial window of 24 hours after onset of symptoms” [3 p.1]. Thus, the iCCM strategy is a public health bedrock to increasing access to quality of, and demand for CCM services [2].

In Zambia, implementation of iCCM in the community started in 2010 in four districts in Luapula Province, then scaled up to all eight districts by 2012, serving a population of 741,373 [8]. The programme expanded to only 65 districts in 2016. It is therefore imperative not only to achieve national iCCM coverage but also to maximise programme effectiveness and impact toward achieving the SDG 3 for children by 2030.

2. Background

Millions of parents continue to seek health care for their sick children with multiple conditions at once daily from public and private hospitals, health centres and traditional healers. Progress to reduce child mortality and morbidity has been slow, stagnating or even reversing particularly in Sub-Saharan Africa [3]. Surveys also reveal that many sick children are not properly assessed, diagnosed and treated by health care providers, and parents are poorly advised [2].

In the light of the above, the MoH and cooperating partners are committed to scaling-up iCCM in order to increase access to cost-effective and quality lifesaving curative interventions for common childhood illnesses in the community. The approach requires the involvement of CHWs or CHVs, traditional leaders and the entire community [9]. The MoH has for decades been working with CHWs, Neighbourhood Health Committees (NCHs) and traditional leaders, through the primary health care (PHC) approach [10, 11, 12] and since 2003, the Safe Motherhood Action Groups (SMAGs) [13]. PHC is the vehicle for service delivery since 1980 [11, 14]. Thus, iCCM is implemented within existing community structures.
The MoH and its partners have developed the Five-Year iCCM Scale-Up Plan, 2017-2021 to reduce further child mortality and morbidity toward achieving SDG 3 for children by 2030. This is within the synchronised interventions in maternal, neonatal and child health and HIV programme documents [13, 14, 15, 16] for greater impact on improving the health of neonates and children.

Additionally, the MoH has implemented three packages for child survival at community level: Caring for the Child’s Healthy Growth and Development (Early Childhood Care and Development (ECD) in 3 districts; Caring for the Sick Child in the Community (iCCM) in 58 districts; and Caring for the newborn at home in 3 districts. The training of CHWs in iCCM and CHAs started in 2010. However, there is need to scale-up iCCM in the community to increase access to lifesaving interventions for neonates and children age 1 month to 5 years.

In developing the Five-Year iCCM Scale-up Plan, 2017-2021, the MoH has taken into account global, regional and national concerns about under-five mortality and morbidity in spite of available government and cooperating partners’ human and financial resources.

3. Rationale

Globally, under-five mortality declined from 12.7 (12.6, 13.0) million in 1990 to 5.9 (5.7, 6.4) million per 1,000 live births in 2015, 19,000 fewer children dying every day, saving 48 under-five million children since 2000 [4]. Although the neonatal mortality rate is declining less rapidly worldwide than the mortality rate for children aged 1 month to five years, about one million neonates died on their first day of life in 2015 [17]. Neonatal mortality contributes to under-five deaths. In 2015, neonatal deaths accounted for 45% of total deaths, 5% more than in 2000 [18]. About half of under-five deaths are associated with nutrition conditions [5].

Programme experience shows that the iCCM strategy can increase treatment coverage and provision of quality care for sick children in the community [1, 2, 3]. In Zambia, the results of a CCM study on pneumonia and malaria in Luapula Province revealed that 68% of children with pneumonia received early treatment from CHWs and over treatment of malaria reduced significantly [19]. Studies in four African Countries have indicated successes in treatment for sick children [20]. For instance, in Ghana, 92% parents and care givers of sick children sought treatment from community-based agents [19]. In Nepal, 69% under-five children have access to treatment [21] and the mortality rate for acute diarrhea, and the proportion of severe pneumonia among acute respiratory infection cases have reduced nationally [22]. In remote rural areas of Ethiopia, community workers delivered two and half times treatments for diarrhea, malaria and pneumonia [23].

In Zambia, neonatal mortality declined from 43 to 24, infant mortality declined from 107 to 45 and under-five mortality declined from 191 to 75 per 1,000 live births between 1992 and 2013 – 2014 [24]. However, despite the decline in these indicators, Zambia is one of the countries in Sub-Saharan Africa, which did not achieve the Millennium Development Goal 4 target by 2015 [25]. Thus, the MoH has intensified efforts in neonatal and child health programmes toward attaining the health SDG 3 for children by 2030. A key
intervention for under-five children is scaling-up iCCM services in the community provided by CHWs and CHAs and supervised by health workers trained in supervision.

However, scaling-up iCCM will require adequate financing, equipment and supplies for the programme to ensure quality treatment and care and prevention strategies for under-five children. Otherwise, CHWs and CHAs will be left with no option but to rely on patient history, signs and symptoms to determine a best course of management within their scope of practice and limited resources resulting in poor quality care for sick children [2].

4. External Environmental Analysis

4.1 Political, policy and legal development

The political, policy and legal environment in Zambia is conducive for scaling-up iCCM services provided by trained CHWs and CHAs in the community. This iCMM Strategic Plan 2017 – 2021 will be implemented in tandem with the Zambia National Newborn Scale-Up Plan, 2016 – 2020, the National Health Sector Development Plan 2017- 2021 and the National Health Resource Strategic Plan 2017 – 2021.

The shortage of the health workforce in Zambia has left much of the rural population with inadequate access to health services. To combat the shortages, the MoH commenced the CHA training in Ndola in 2010 and several NGOs trained informal workers as CHVs, allegedly estimated at 23,500 to manage diseases in the community. However, CHVs did not get formal training and had not been integrated in the national health system. The Government decided to maximize the effectiveness of this informal cadre of health workers in Zambia.

Since the 1978 Alma Ata Declaration on PHC [26], Zambia has utilised CHWs to provide preventive, promotive and curative health services in under-served rural areas [10, 11, 12, 14] to complement the critical shortage of the health workforce.

Within in a decade, the MoH has developed two National Community Health Worker Strategies 2010 and 2016 [27, 28] to formalise and standardise the role of CHWs in the health sector in order to enable equity of access to high-impact PHC services. The MoH is positioned to achieve its overarching CHW strategy goal to provide cost-effective, adequately trained and motivated community-based CHW and CHA health workforce that will contribute to improved management of common and preventable health conditions in rural communities [1,2,3] toward the achievement of SDG 3.

4.2 Economic factors

The global and domestic economic environment has adversely affected provision of iCCM services in Zambia. High inflation rates have compounded the economic environment despite the rates stabilizing in single digit in 2015. The inflation rate rose sharply to reach 22% at the end of 2015 - ranging from 21.1% in January to 12.5% in October 2016. The inflation rate is projected to drop to 9.4% in December 2016 [29].
In Zambia, budget allocations to the health sector increased up to about 8 - 12% in recent years toward achieving the Abuja Declaration of 2001 requiring an increase of 15% in health budgets in Africa in order to stem the tide of increased disease burden in the continent and in Zambia [30]. In Zambia, the trend to increase the health budget has been affected by the depreciation of the Kwacha to one US dollar. The depreciation of the local currency has ranged from about K3.20 in 2010 to about K9.80 in 2016 and this has affected the procurement of drugs, equipment and consumables required to provide quality health services, including iCCM services.

### 4.3 Social factors

The population of Zambia increased from 14.1 million in 2016, it is projected to increase to 15.6 Million in 2016 representing a 3.06% growth rate. The average life expectancy at birth increased from 56.4 years in 2010 to 58.1 years in 2015 [31]. The rapid population growth has placed a challenge on provision health care not only for sick under-five children but also the general population.

In Zambia, over 60% of the population live below the poverty line with education and health infrastructure skewed toward urban areas thereby, limiting access to health care in rural areas [32]. High poverty levels [32] expose under-five children to preventable diseases and non-communicable diseases as parents and care givers strive to provide quality food or good nutrition for their families and other basic needs.

Additionally, social factors such customs, harmful traditional practices, and alcoholism predispose under-five children to ill health. For instance, a study on demographic, cultural and environmental factors associated with frequency and severity of malnutrition among Zambian children less than five years of age in Zambia, revealed that older ages were associated with being stunted and underweight while younger ages were associated with being wasted [33]. Malnutrition predispose under-five children to ill health [5].

### 4.4 Technological developments

The world has advanced in the use of information communications technology (ICT). The advances in ICT have enabled a number of innovations such as e-Health and use of mobile phones in the health delivery system, which are increasingly being adopted by most countries. ICTs used in the health sector have well-known advantages. They can
encourage change in health care seeking behaviour and speedy referral of patients to the next level of care. They also reduce barriers to access health care, distance or lack of expert resources thereby levelling the playing field for quality health care [34].

4. 5 Ecological environment
Ecological and environmental natural disasters such as floods, droughts and food insecurity and waterborne diseases have a negative impact on the health of under-five children. The environment is compounded by high disease burden from preventable diseases such as tuberculosis, malaria and HIV and emerging infections like Ebola and Zika virus and non-communicable (NCDs) diseases such as diabetes, hypertension and heart disease cardiovascular, cancers and mental illness. The problem has been compounded by severe trauma from the high number of road traffic accidents. For instance, in 2016, road traffic accidents in Zambia were ranked the third highest cause of death after HIV/AIDS and malaria and the second leading cause of death for people aged between five and 20 [35]. Pneumonia, diarrhoea and malaria contribute to high mortality and morbidity in children in Zambia [14]. Additionally, cholera, measles and typhoid outbreaks predispose under-five children to ill health.

The MoH will collaborate with the Disaster Management Mitigation Unit (DMMU) at Cabinet Office and stakeholders in the community traditional leaders, NHCs CHWS and the community to avert disasters and ensure effective management when they happen. This is likely to reduce the risk of under-five children contracting infections.

5. Internal Environmental Analysis
For decades, malaria, respiratory infections, diarrhoea and acute malnutrition have contributed to under-five mortality in Zambia. The MoH adopted the 1993 WHO Integrated Management of Childhood Illness [IMCI] programme [36] in 1996 to address timely access to and use of curative services for the leading causes of under-five mortality for “hard-to-reach populations” with limited access to health facilities. Trained CHWs and CHAs provide essential treatment for malaria, diarrhoea, pneumonia, and acute malnutrition in the community. The latter are trained for 12 months and are in the civil service establishment. Currently, 4,711 CHWs and 1,086 CHAs have been trained since 2010, but not all CHWs are active and adequately supplied with commodities.

In Zambia, vertical programmes have significantly dropped the neonatal, infant and child mortality rates since 1992 [14, 23]. They provide high impact interventions to prevent the killer diseases of children malaria, diarrhoea pneumonia and malnutrition. Specifically, massive distribution of million insecticide-treated nets (ITN), artemisinin-based combination therapy (ACT); intermittent presumptive treatment (IPT) prophylaxis, oral rehydration salts (ORS) and zinc for diarrhoeal diseases, HIV prophylaxis and treatment for HIV-positive pregnant women and indoor residual spraying (IRS). Relevant information, education, and communication [IEC] messages, de-worming, vitamin A distribution and improved infant and young child feeding practices have also contributed significantly to the decline of neonatal, infant and under-five child mortality in Zambia [23].
The MoH adopted the iCCM strategy in May, 2010. The iCCM Scale-Up Plan 2017-2021 will build on successes achieved thus far in increasing access to essential treatment for sick under-five sick children in the community and strengthen the national CCM programme. However, more needs to be done for this scale-up plan to contribute to the attainment of SDG 3 for children by 2030.

6. Challenges

The Five-Year Zambia Demographic and Health Surveys indicate the progress made to reduce under-five mortality since 1992 [23]. However, some challenges remain, which should be addressed in order to effectively implement this scale-up plan toward attaining SDG 3 for children by 2030. The main challenges to scaling-up iCCM services in the community in Zambia include:

- Inadequate funding to train CHWs to standard. Currently, CHWs are trained in treating diarrhoea, pneumonia and malaria only despite that the prevention training package is available. The current implementation modality undermines the need for a holistic approach to preventing conditions killing under-five children;

- Poor quality services provided by CHWs and CHAs in areas where they are deployed to work in the community as per MoH deployment policy due to irregular drugs supply and lack of basic equipment;

- Fragmented approach to utilising community based agents mainly, CHWs, NHCs and SMAGs who provide health services in the community leading to duplication of effort likely to frustrate some of them and lead to attrition;

- Limited number and high turnover of CWHs due to lack of a standard incentive package hence, continuous training is required;

- Few CHAs trained since 2010 compared to the need and most of them are deployed to work health posts or health centres due to shortage of the critical health workforce nurses and midwives serving remote rural population;

- Discourse between what health workers are trained to do during training and what they are expected to do in practice i.e., collaborate with traditional leaders and the community especially if they are deployed to work in rural facilities and supervise CHWs and CHAs. In-service training of CHW and CHA supervisors in supervision increases the budget for the iCCM programme;

- Government programs concerning neonates and children are poorly coordinated at all levels. Better coordination of these programmes, including programmes funded by cooperating partners and NGOs would maximise the impact of scaling up iCCM.

- CHWs and CHAs are not supported and supervised regularly due to lack of transport for their supervisors.
Since the drug kit system for CHWs ended in 2005 after resolution of the Central Board of Health, the existing procurement system has not guaranteed continuous supply of drugs and equipment or commodities for CHWs.

Nonetheless, most of the challenges are not insurmountable. They can be addressed with commitment by stakeholders and better management and coordination of human and financial resources for the programs focusing on improving the health of under-five children and reducing mortality and morbidity.

7. **Scaling-Up iCCM in Zambia**

Currently, 4,711 out of the target 11,229 CHWs have been trained in iCCM in 65 out of 105 districts [Figure 1].

Figure 1: Coverage of CHWs trained\(^1\) in iCCM, October 2015

CHWs serve a population of 500 leaving in scattered villages as Zambia is sparsely populated [24]. To scale-up iCCM and achieve national coverage, a total 11,229 CHWs should be trained i.e., 7,711 in 65 districts and 3,460 in the remaining 40 districts. This means that training new CHWs for the new districts and replacing trained CHWs due to attrition will continue during the duration of this plan. Most importantly, it is imperative to train CHWs in the prevention package to make the programme cost-effective by reducing mortality and morbidity.

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\(^1\) Not all CHWs trained in iCCM are currently supplied with commodities and supported to deliver services.
the number of sick children being treated for preventable conditions and maximise utilisation of human and financial resources.

7.1 Framework
This iCCM Scale-up plan is aimed at increasing the coverage and utilisation of the services to keep under-five children health and reduce mortality in Zambia. The framework lays out the activities to assure quality iCCM services for under-five children in the community in accordance with the WHO and United Nations Children’s Fund (UNICEF) guidance to train CHWs to standard.

This framework consists of the following: Vision, goal, guiding principles, objectives, strategies and activities.

7.1.1 Vision, Goal and Guiding Principles

Vision
To sustain the well-being of neonates, infants and children in Zambia.

Goal
To reduce neonatal and mortality child and morbidity of children age 1 month and 5 years in Zambia.

Guiding Principles
The MoH accepts and adopts most of the WHO/UNICEF’s guiding principles for effective scale-up of iCCM:

- Existing policies have been modified to enable CHWs and CHAs to administer antibiotics to sick children in the community;
- The implementation of iCCM has been built on the experience gained from institutionalized and scaled up malaria, diarrhea and pneumonia programmes;
- Support is given to CHWs and CHAs to maintain and enhance their skills in assessing and managing childhood illnesses;
- Health centre supervisors provide supportive supervision and clinical mentoring for CHWs regularly to ensure quality of care (this responsibility is undertaken irregularly because supervisors have no transport);
- Provide adequate and uninterrupted medicines and supplies through the national supply chain system. But the supplies have been erratic due to budget constraints;
The Child Health Community Register has been developed to ensure systematic approach to gathering, aggregating, analysing and reporting data and serves to map and identify key gaps in treatment coverage; and

Analysis of national data related to causes of death, patterns of care-seeking, coverage of interventions and other key indicators is undertaken annually and every five years through the Zambia Demographic and Health Survey. The analysis helps to identify where deployment of CHWs for iCCM may be most effective [1].

This iCCM Scale-Up Plan will include two WHO/UNICEF guiding principles - refresher training and CHW peer supervision, which the MoH has not yet implemented since the programme started in 2010.

7.1.2 Objectives

The objectives of the iCCM Scale-Up Plan are as follows:

1. To scale-up iCCM in the community in order to achieve national coverage and universal access to iCCM services for under-five children;
2. To sustain continuous improvement of iCCM service delivery;
3. To integrate preventive and treatment services for under-five children for programme effectiveness; and
4. To strengthen coordination, management and monitoring and evaluation of the iCCM programme.

7.1.3 Strategies and Activities

The MoH actively promotes provision of quality care as close to the family as possible [14]. It uses iCCM services in the community as “entry points” for sick children to access speedy access to treatment and in this plan to prevention interventions in the community.

Most parents and caregivers of sick children will access iCCM services in the community through the extensive network of CHWs and NHCs and SMAGs members trained in iCCM. On the one hand, these groups are accountable to the communities and traditional leaders, on the other hand, they accountable to in-charges of health centres through the Health Centre Committees (HCCs). However, effectiveness of the NHCs and HCCs varies, leaving CHWs trained in iCCM accountable to in-charges of health centres.

During the next five years, the MoH through the Child Health Unit will provide planning, management, programme implementation, technical and monitoring and evaluation leadership in partnership with the health centres, the districts and cooperating partners towards achieving the goal to reduce neonatal, infant and child mortality in Zambia. The objectives, strategies and activities to achieve the goal of the iCCM Scale-Up Plan toward achieving SDG 3 for under-five children in Zambia are outlined below:
Objective 1: To scale-up iCCM in order to achieve national coverage and universal access to iCCM services for under-five children in the community.

Strategy: Achieve national iCCM coverage.

Activities:
- Print training materials for CHWs’ training.
- Print training materials for health centre supervisors’ training.
- Print and distribute Child Health Community Register to existing and new CHWs.
- Assess the number of CHAs deployed to work in the community and fill the gap with CHWs in the total number required to be trained.
- Train a total 11,229 new CHWs to achieve the target number in 65 districts where iCCM has been implemented and 40 remaining districts.
- Train health centre supervisors in 40 remaining districts.
- Create and maintain a database for CHWs and CHVs trained in iCCM to inform planning, refresher training and effective management of the programme.

Objective 2: To sustain continuous improvement of iCCM service delivery.

Strategy 1: Support CHWs and CHAs to sustain the quality of iCCM services provided in the community.

Activities:
- Procure and distribute adequate medicines and equipment.
- Print and distribute Job Aids for CHWs and CHAs.
- Develop district CHW training teams to maximise utilisation of limited financial resources and not use trainers from the MoH or Provincial Health Offices [PHOs].
- Support trained health centre supervisors in collaboration with District Health Office (DHO) managers to ensure accurate documentation of data in the Child Health Community Register by CHWs and timely submission to health centres.
- Train selected CHWs as peer supervisors to sustain the quality of iCCM services in the community.
- Develop Standard Operational Procedure (SOP) to promote routine identification of sick children and delivery of preventive and curative services in the community.

Strategy 2: Procure drugs and supplies for the national iCCM programme, distribute them in collaboration with Central Medical Stores, PHOs and DHOs.

Activity:
- Procure and distribute adequate quantities of the following pharmaceutical drugs and supplies:
  - Amoxicillin dispersible tablet, 250 mg.
- Low osmolarity ORS- 500ml sachets (flavoured from private shops).
- Zinc sulphate tables, 10mg.
- Artemisinin Combination Therapy (ACT- coartem - 120/800).
- Paediatric paracetamol.
- Malaria Rapid Diagnostic Tests (mRDTs).
- Respiratory rate counting timers.
- MUAC tapes.

**Objective 3:** To integrate preventive and treatment services for under-five children for programme effectiveness.

**Strategy 1:** Equip CHWs with skills in prevention interventions.

**Activities:**
- Revisit the training methods used in IMCI/iCCM training and adopt effective transformation methods to train CHWs. These methods are likely to be cost-effective compared to traditional lecture methods.
- Revise the Preventive Training Package to reduce the training period from six weeks to two/three weeks to maximise utilisation of limited resources and protect the well-being of under-five children.
- Intensify social mobilisation of the community on iCCM to increase access to prevention and treatment services.
- Support DHOs to train CHWs in the preventive package.
- Support DHOs to conduct refresher training for health centre supervisors.
- Orient chiefs and village headmen on iCCM to use their comparative advantage in mobilising their subjects to participate fully in iCCM preventive and treatment services.
- Advocate to regulatory bodies to integrate iCCM in pre-service training curricula to reduce the cost of in-service training in supervision for supervisors of CHWs and CHAs.

**Strategy 2:** Build community capacity for referral and support of parents and other care givers of sick children.

**Activities:**
- Assist DHOs to conduct district level community mobilization campaigns through health centres to encourage parents and other care givers to take sick children to health centres timely.
- Assist DHOs to strengthen existing strategic partnerships with traditional leaders to support the training of and work of CWHs in their chiefdoms.
- Support DHOs to strengthen existing strategic partnerships with development partners and NGOs supporting implementation of and iCCM training in their districts.
- Train drama groups in behaviour change communication (BCC) to increase utilisation of iCCM services.
• Assess community transport used in other programmes that can be used to refer sick children to health centres timely and/or work with the community to identify transport, which can be used promptly for referral.

**Objective 4:** To strengthen coordination, management and monitoring and evaluation of the iCCM programme.

**Strategy 1:** Improve coordination, management and monitoring and evaluation systems at all levels.

**Activities:**

• Monitor drug consumption through quarterly supportive supervision to CHWs.
• Hold quarterly Child Health Sub-Committee meetings of the IMCI Technical Working Group to review progress of programme implementation.
• Conduct quarterly supervisory visits at DHOs from Child Health Unit in collaboration with PHOs.
• Hold bi-annual meetings with health centre supervisors to share best practices and lessons learnt.
• Conduct quarterly supervisory visits to all health centres by the DHOs.
• Compile quarterly and annual iCCM reports at community, health centre, district, provincial and national levels.
• Conduct operational research on iCCM to inform policy, planning and programme management.
• Procure motor bikes for trained health centre supervisors to assure regular clinical mentoring and supervision of CHWs and CHAs.
• Participate and present Zambian experience with iCCM at relevant local, regional and international conferences.

### 7.2 Implementing partners

The MoH provides policy guidance, leadership and direction and coordinates the scaling up of iCCM services in the country. It also mobilizes resources to roll out services to new districts in collaboration with cooperating partners at national level and NGOs with a presence in different districts.

The partners have played an important role in mobilizing additional resources for implementing and provision of iCCM quality treatment and preventive services as the programme is scaled up. The cooperating partners currently supporting iCCM include WHO, UNICEF, CHAZ, Save the Children, World Vision, Project Concern International (PCI), Systems for Better Health (SBH) and Programme for Appropriate Technology in Health (PATH).

From 2010 with support from cooperating partners, the MoH's strategic partnership, coordination and collaboration with stakeholders supporting child health programmes in Zambia have been instrumental in successful expansion of the national iCCM programme. The MoH learnt many lessons to help scale-up iCCM services in the country.
Parents, families and communities will also continue to be important partners in the scale-up of iCCM services in the community. Since 2010, experience has shown that parents and care givers of children and families play a pivotal role in the uptake of iCCM services. The role of the family in iCCM will be strengthened during the implementation period of this scale-up plan.

Cooperating partners have supported the implementation of the scale-up of iCCM services in the country. The support includes training CHWs and health centre supervisors, buying pharmaceuticals and supplies, and community mobilization. Therefore, strategic partnerships with cooperating partners and NGOs will continue in order to sustain the gains achieved in iCCM since 2010.

7.3 Monitoring and Evaluation

The monitoring and evaluation (M&E) system for iCCM is essential to monitor and document progress and trends toward achieving SDG 3 for children by 2030. A relevant, effective and transparent M&E system serves as an important management tool in assessing efficient and effective iCCM preventive and treatment interventions in order to continuously inform planning and management of the national iCCM programme. The MoH will continue to strengthen the M&E system during the implementation period of this plan.

As a critical part of the Health Management Information System (HMIS), the Child Health Community Register will be used in sustaining prevention and treatment of childhood illness in the community. This register contributes to a robust M&E system for neonates and children aged 1 month to 5 years in Zambia. The data recording and reporting will be as follows:

- CHWs will record in the Child Health Community Register daily;
- CHWs will compile monthly data;
- CHWs will compile quarterly data and submit to health centres;
- Health centres will transfer the data from the CHWs on the quarterly form at the end of every quarter and send it to the DHOs;
- The DHOs will compile quarterly district data and send to the PHOs;
- The PHOs will compile quarterly provincial data and send to the MoH for compilation of national data and entry into the HMIS database.

The data will be a major source of information for monitoring and measuring the performance and informing decision making of the whole national iCCM programme in the catchment areas for CHWs and at district, provincial and national levels. Annual iCCM reports will be written and best practices documented and disseminated widely. Annual beneficiary assessments will be conducted to establish community experiences and stakeholders’ perceptions on the iCCM preventive and treatment activities and lessons learnt.
7.4 Baselines, Indicators and Targets

Table 1 presents baselines, indicators and targets, which will be used to monitor the effectiveness of the national iCCM programme to improve the well-being of children and reducing under-five children mortality and morbidity by 2021. This based on population projection 18,368,328 in 2021 and population living within 5 km radius to health facilities 9,184,164 and expected CHWs to be trained for 500 population 11,796.
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Unit</th>
<th>Baseline 2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1. Total number of districts</td>
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<td></td>
</tr>
<tr>
<td>2. Number and percentage of CHWs providing iCCM services</td>
<td>%</td>
<td>53%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<tr>
<td>3. Number and percentage of CHWs trained in iCCM</td>
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<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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</tr>
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<td>%</td>
<td>%</td>
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<tr>
<td>5. Number and percentage of CHWs who received refresher training</td>
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<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
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<tr>
<td>Treatment for sick children</td>
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<td>6. Number of sick children receiving:</td>
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<td></td>
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</tr>
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<td>a. Amoxicillin dispersible tablet</td>
<td>%</td>
<td>0%</td>
<td>80%</td>
<td>80%</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>b. ORS- 500ml sachets</td>
<td>%</td>
<td>0%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Zinc sulphate tablets</td>
<td>%</td>
<td>0%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<tr>
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<td></td>
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</tr>
<tr>
<td>d. Artemisia Combination Therapy (ACT- Coartem)</td>
<td>%</td>
<td>0%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<tr>
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<td>0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Paediatric paracetamol</td>
<td>%</td>
<td>0%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
<td>80%</td>
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<tr>
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<td>0</td>
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<tr>
<td>Testing and referral</td>
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<tr>
<td>7. Number of under-five children with fever tested with RDT</td>
<td>%</td>
<td>0%</td>
<td>90%</td>
<td>90%</td>
<td>80%</td>
<td>90%</td>
<td>80%</td>
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<tr>
<td>Number</td>
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<tr>
<td>8. Number of under-five children referred to a health facility</td>
<td>Number</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Quality iCCM services</td>
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<td></td>
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<td></td>
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<tr>
<td>9. Number of health centre supervisors trained.</td>
<td>Number</td>
<td>963</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>10. Number of peer supervisors trained.</td>
<td>Number</td>
<td>0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11. Number of CHWs completing the Child Health Community Register correctly.</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
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<tr>
<td>Number</td>
<td></td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Number of CHWs/CHAs supervised</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
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</tbody>
</table>

Special studies and research where necessary will be conducted to inform specific issues to improve and sustain the quality of iCCM programme at all levels.
7.5 **Costing and Financing**

The costs for delivery of iCCM interventions in the community include programme costs, drugs, commodities and supplies and a share of health system costs exclusively for these interventions; human resources; trainings; transport and logistics; supervision; systems strengthening; and behaviour change communication. Health system staff costs at national, provincial and district levels contribution to the programme have been excluded from the budget. Major programme costs have been established from the LIST and the one UN costing tools.

The costs for essential commodities are presented per high impact intervention for the four childhood illnesses at the required quantities as the first condition to achieving universal coverage in the community. Nonetheless, essential commodities alone will not achieve the objectives; the system to deliver high impact interventions is equally important. Therefore, it is not possible to present system costs per high impact interventions; their success is entrenched in the modus operandi of the community structure in Zambia.
### 7.6 Budget (USD)

<table>
<thead>
<tr>
<th>Activity</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>Total budget (USD)</th>
<th>Shortfall (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Print training materials to support training and provision of quality iCCM services</td>
<td>1,181,837</td>
<td>1,181,837</td>
<td>1,181,837</td>
<td>1,181,837</td>
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<tr>
<td>2. Trainings</td>
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<td>3,140,747</td>
<td>3,140,747</td>
<td>3,140,747</td>
<td>3,140,747</td>
<td>15,703,737</td>
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<tr>
<td>3. Drugs, commodities and supplies</td>
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<td>3,152,057</td>
<td>3,152,057</td>
<td>3,152,057</td>
<td>3,152,057</td>
<td>3,152,057</td>
<td>15,760,283</td>
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<td>4. Revise Prevention Package</td>
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<td>5. Technical meetings with various groups</td>
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<td>95,871</td>
<td>479,357</td>
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<td>6. Develop, print and distribute SOP</td>
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<td>40,000</td>
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<td>0</td>
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<td>7. Integrate iCCM in pre-service training curricula and printing</td>
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<td>8. Community mobilization meetings with NCHs/SMAGs and community leaders</td>
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<td>317,194</td>
<td>317,194</td>
<td>317,194</td>
<td>317,194</td>
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<td>9. Supportive supervision</td>
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<td>10. Establishing data base for CHWs</td>
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<tr>
<td>11. Conferences</td>
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<td><strong>Sub-total Total</strong></td>
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<td><strong>44,201,922</strong></td>
<td><strong>44,201,922</strong></td>
<td><strong>22,461,110</strong></td>
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<td>Motor bikes for supervisors</td>
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<td><strong>Grand total</strong></td>
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<td><strong>66,663,032</strong></td>
</tr>
</tbody>
</table>
References


malaria and pneumonia in a remote district in Ethiopia’s Oromiya Region. Ethiop J Health Dev 23: 120–126.


