

Policy Brief: Kitui County

Demonstrating the Value of Multi-Sectoral Nutrition Investments in Kitui County

Introduction

Over the last decade, Kenya has made substantial efforts in addressing undernutrition. Nationwide, the stunting rates for children under the age of five improved from 26% to 18%. The decline was attributed to national campaigns to enhance good nutrition at every stage of life. The program is tagged *Malezi bora* in Swahili, and includes deworming, immunization, vitamin A supplementation to boost immunity, enhancing partner collaboration to leverage resources for nutrition interventions, and the implementation of nutrition action plans and policies. The county stunting level stands at 25.1%, wasting at 4.9% and underweight at 13.9% (KDHS, 2022).¹ However, the county government demonstrates political commitment for preventing malnutrition by investing in the scale-up of low-cost high-impact nutrition interventions. With the support of USAID Advancing Nutrition, county leadership, and nutrition stakeholders, Kitui County developed the county MSN approach, which sets ambitious targets for the scale-up of nutrition interventions over the next five years. The plan identifies priority MSN actions for each sector, defines targets for each intervention, and provides a monitoring and accountability framework as well as costing of interventions, which the county can use for subsequent planning and budgeting.

Methodology

The County Nutrition Investment Cases advocate for increased investment in nutrition interventions. Each Investment Case consists of three modules: (i) cost of hunger—the economic cost of malnutrition, through its burden on the health, education, and productivity sectors in the county; (ii) summary of the county MSN plan; and (iii) scale-up analysis—health impact and economic analysis for the proposed nutrition interventions.

Key Messages

- Create innovative ways for financing multi-sectoral nutrition (MSN).
- Place MSN approach at the center of government planning.
- Nutrition-sensitive agriculture as a catalyst to address malnutrition.
- Enhance collaboration between the national and the county government to increase uptake of nutrition related policies.
- Enhance governance and coordination of MSN interventions at county level.
- Invest in nutrition for guaranteed value for money and an essential path to reaching national and county aspirations.
- Take a sustainable financing approach to nutrition.
- Support the generation of critical nutrition data to guide planning and budgeting for nutrition in the county.

¹ Government of Kenya, Kenya National Bureau of Statistics – The Kenya Demographic Health Survey Report, 2022.

The Cost of Malnutrition

Health Impacts

The Cost of Hunger in Africa (COHA) study in Kenya² and the National Nutrition Action Plan³ highlighted the high levels of child undernutrition and its lasting health and human capital consequences for the country. USAID Advancing Nutrition applied the COHA model during the development of this County Investment Case to estimate additional cases of morbidity, mortality, school repetitions, school dropouts, and reduced physical capacity that can be directly associated with undernutrition in children under the age of 5 for the baseline year 2022.



Multi-sectoral nutrition benefits local residents. Photo Credit: Fridah Bwari/USAID Advancing Nutrition Kenya

Estimates are that 25.1% of children under the age of 5 (KDHS, 2022), which is equivalent to 34,304 children in Kitui County, were stunted. Furthermore, malnutrition causes an estimated 6,697 cases of low birthweight and 18,997 children are underweight annually. Overall, undernutrition in Kitui County costs the health system approximately KSh 52 million (US\$ 0.5 million) per year. The COHA model was customized with the new KDHS data 2022 to generate the results reported in this section.

Human Capital and Economic Impacts

In addition to the impact of stunting on the health of individuals, it also affects cognitive development in children, and in turn, reduces a child's educational performance, resulting in increased grade repetition and dropouts. Estimates show that there are 627 cases of grade repetition in the county annually due to stunting, which costs the education system and families an estimated KSh 8.8 million (US\$ 74,816) annually.⁴

In addition, stunting affects future economic productivity due to increased mortality (i.e., loss of workforce) and lowered labor productivity across the key sectors in the county such as manufacturing; infrastructure; water, sanitation, and hygiene (WASH); forestry; and agriculture. From the analysis, estimates show that the annual losses in economic productivity due to malnutrition in Kitui County were KSh 216 million (US\$ 2.08 million). Broken down, costs were KSh 27.4 million (US\$ 0.26 million) attributed to the agriculture sector, KSh 1.9 million (US\$ 0.18 million) to the WASH sector, and KSh 1.8 million (US\$ 0.17 million) to social protection. Overall, the annual cost of malnutrition in the county is equal to KSh 275.7 million (US\$ 2.65 million), which represents 0.27% of its gross county product.

Kitui County MSN

The total public investment required to deliver the Kitui MSN approach is based on selected interventions across the five sectors to drive the nutrition agenda. These nutrition-sensitive and nutrition-specific interventions will cost an estimated KSh 3.53 billion (US\$ 35.27 million) between 2023 and 2027. The MSN investments will be allocated by sector, based on selected interventions, with 47%

² Government of Kenya, 2019, Cost of Hunger in Africa (COHA) study in Kenya.

³ Government of Kenya, 2018, Ministry of Health, National Nutrition Action Plan (2017-2022).

⁴ County COHA Estimates, 2022.

of the resources allocated to nutrition-sensitive social protection interventions, 25% to nutrition-sensitive education interventions, 15% to WASH interventions, 9.7% to nutrition-specific interventions, and 3.3% to nutrition-sensitive agriculture. The average annual cost of the MSN is KSh 706 million (US\$ 6.8 million) per year.

Cost of High-Impact MSN Interventions

Within the package of evidence-based high-impact MSN interventions included in the Kitui MSN, the total costs are KSh 0.36 billion (US\$ 3.42 million) for nutrition-specific, KSh 0.0027 billion (US\$ 0.03million) for enabling environment, KSh 0.12 billion (US\$ 1.16 million) for nutrition-sensitive agriculture, KSh 0.92 billion (US\$ 8.87 million) for nutrition-sensitive education, KSh 1.58 billion (US\$ 16.51 million) for nutrition-sensitive social protection, and KSh 0.55 billion (US\$ 5.28 million) for nutrition-sensitive WASH.

The Health and Economic Benefits of Investing in Nutrition

Intervention Reach

The preventative high-impact nutrition interventions within the MSN approach will reach an average of 312,650 newborns, children, adolescent girls, and pregnant women, annually. The interventions with the highest reach over 5 years will move nutrition indicators relating to severe acute malnutrition (SAM), vitamin A supplementation (VAS), infant and young child feeding (IYCF), and iron-folic acid supplementation (IFAS) in pregnancy.

Health Impacts

USAID Advancing Nutrition projects that nutrition interventions within the Kitui MSN approach will have a significant impact on the health of newborns, children, adolescent girls, and pregnant women. We project results of 1,176 additional live, non-stunted children, as well as 17,791 cases of anemia averted in pregnant women. In addition, we project 1,530 cases of wasting averted over the 5-year period.

Overall, we predict the interventions will result in 315 child deaths averted. The sum of these health impacts results in a potential 92,326 disability-adjusted life years (DALYs)⁵ averted. In addition to the health impact, these interventions will lead to cognitive and human capital impacts over time, such as increased IQ and educational attainment.

The estimated cost per case of stunting in children is KSh 37,356 (US\$ 358.64). Additionally, the estimated cost per case of anemia averted in pregnancy is KSh 3,872 (US\$ 37.17) for IFAS in pregnancy.

By translating this level of health impact into DALYs averted, we estimate that investing in the high-impact nutrition interventions costs KSh 6,297 (US\$ 60.46) per DALY averted. Using a Value of Statistical Life-Year for Kenya,⁶ we estimate that the Kitui MSN will yield a benefit-cost ratio of 9:1 based on 5-year investments. This demonstrates that investment in MSN in Kitui can generate up to nine times more in terms of economic returns for the county. This return on investment indicates that for each shilling invested in MSN in Kitui over the 5-year period, an economic return equivalent to KSh 9 will be realized at a 5% discount rate.

Recommendations

Create Innovative Ways for Financing MSN

USAID Advancing Nutrition anticipates that developing an investment case for MSN and demonstrating the value of MSN will trigger stakeholders to explore multiple and sustainable ways of aggregating and synergizing funding for MSN. Based on findings from the model, these financing strategies should ensure

⁵ A DALY averted can be thought as one lost year of “healthy” life.

⁶ Viciusi and Masterman, 2017.

that funding is allocated fairly to avoid one activity being overfunded (e.g., training) and that there is more coordination among partners/funders at the county and national government levels. Furthermore, MSN works as a unit, therefore timely and collated modes of funding from the state and non-state actors will enhance the implementation of both nutrition-specific and nutrition-sensitive-interventions in the county to improve nutrition outcomes.

Position MSN Approach at the Center of Government Planning

Promotion of and investment in good nutrition should not be limited to the health sector in Kitui County, but rather it should be a multi-sectoral approach unlocking the potential of the nutrition-sensitive interventions to jointly invest to optimize the benefits of reduction in malnutrition in the county.

The MSN approach is embedded in the Food and Nutrition Security policy. Therefore, overall long-term planning and implementation of this approach by the county government will contribute to increased production of nutrient-dense food and equitable food distribution to meet the needs of the population. Implementation of an MSN approach will also improve the capacity of people to implement income generating activities, which will increase revenue to purchase nutritious foods. Additionally, it will allow the most vulnerable sections of the community to access health care, consume safe water, improve hygiene and scale up environmental sanitation.

Nutrition-Sensitive Agriculture as a Catalyst to Address Malnutrition

Chronic food insecurity in the county has contributed to the bouts of wasting and ultimately linear growth failure. To address the chronic food insecurity situation, the county needs to put resources in place to support a sustainable food system to improve household dietary diversity which is a predictor of the micronutrient density of the diet, particularly for young children. In an ideal setting, agriculture can make contributions to dietary diversity by increasing and improving the production of nutrient dense foods. The consumption of a variety of foods across and within food groups and across different varieties of specific foods guarantees the adequate intake of essential nutrients and important non-nutrient factors.

Strengthen Partnership and Coordination Frameworks for MSN

Evidence gathered during the development of this investment case points toward significant gaps in the capacity of county governments to coordinate stakeholders working on MSN. This has resulted in multiple and often redundant activities by different stakeholders within the sub-counties. Therefore, there is need for county leadership to empower MSN managers across sectors to uphold their roles and responsibilities in coordinating MSN stakeholders in the county. In many instances, stakeholders fund and implement activities with no regard to MSN work plans in the county governments. MSN managers at specific sectors admit inability to influence the work of stakeholders to put substantial funds towards MSN activities. A greater focus on the linkage and interaction between nutrition-sensitive and nutrition-specific agendas to reduce stunting is required.

Enhance Governance and Coordination of MSN Interventions at County Level

The nutrition stakeholders in Kitui County are encouraged to continue MSN coordination efforts at the county and sub-county level, advocacy for MSN, and meaningful communication with people (particularly in leadership positions) previously not familiar with nutrition issues to rally them to support nutrition initiatives. Sustained commitment by the MSN stakeholders will be required to address the complex and long-term challenges in the actual implementation of scale-up plans.

Increase Funding of MSN Interventions to Achieve Nutrition Outcomes

The return on investment indicates that for each shilling invested in MSN in Kitui over the 5-year period, the county will gain an economic return equivalent to KSh 9, this is a strong justification for

funding MSN in Kitui County. To accelerate and scale up efforts toward the elimination of malnutrition as a public health problem, the county government must make adequate budget allocations to nutrition. For instance, during the review of Annual Work Plans, adequate funds should be allocated for MSN activities. The resources needed to implement prioritized intervention as reflected in the Kitui County MSN Approach require consistent resource allocation by the government for the next five years.

Support the Generation and Use of Critical Nutrition Data to Guide Planning and Budgeting for Nutrition in the County

The MSN defines a common results measurement and accountability framework for county actions as captured by the MSN scorecard. Nutrition data (specific and sensitive) need to be routinely collected and collated from various sectors to inform planning and budgeting and provide clarity on interventions' equity and efficiency. To improve data management and its use for decision-making, Kitui County should facilitate regular nutrition data/information review during coordination meetings and generation and dissemination of knowledge products. This should include data that provides a clear understanding of the nutrition financing landscape in the county.

Resource Requirements (KSh)

High-Impact Multi-Sectoral Intervention

Health	Year 1	Year 2	Year 3	Year 4	Year 5	Total cost
Implementation of Baby Friendly Community Initiative	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
Management of acute malnutrition	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000	100,000,000
Nutrition assessment, surveys, and surveillance	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	50,000,000
Iron folic acid supplement for pregnant women	3,000,000	3,300,000	3,700,000	4,000,000	4,200,000	18,200,000
Infant and young child feeding	6,000,000	6,000,000	6,000,000	6,000,000	6,000,000	30,000,000
Micronutrient powders	3,000,000	3,300,000	3,700,000	4,000,000	4,200,000	18,200,000
Treatment of severe acute malnutrition	5,000,000	5,800,000	6,500,000	7,000,000	8,000,000	32,300,000
Vitamin A supplementation	9,000,000	9,500,000	9,700,000	9,800,000	10,000,000	48,000,000
Zinc + Oral Rehydration Solution	1,500,000	1,800,000	2,100,000	2,300,000	2,300,000	10,000,000
Sub Total - Health	67,500,000	69,700,000	71,700,000	73,100,000	74,700,000	356,700,000
Agriculture	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Establishment of kitchen gardens	7,200,000	12,000,000	9,600,000	9,600,000	9,600,000	48,000,000
Promote diversification in production of safe and nutritious foods for crops, animals, and animal products	1,729,600	1,902,560	2,092,816	2,302,098	2,532,307	10,559,381

Promote utilization of safe and nutritious foods	4,841,600	5,325,760	5,858,336	6,444,170	7,088,587	29,558,452
Development of information, education, and communication material (agri-nutrition manual, pamphlets, brochures, leaflets, agri-nutrition dialogue card)	1,012,900	1,114,190	1,225,609	1,348,170	1,482,987	6,183,856
Soil and water conservation	307,200	337,920	371,712	408,883	449,772	1,875,487
Post-harvest management	787,200	865,920	952,512	1,047,763	1,152,540	4,805,935
Promote production of biofortified foods	1,037,600	1,141,360	1,255,496	1,381,046	1,519,150	6,334,652
Dairy breed improvement	1,467,200	1,613,920	1,775,312	1,952,843	2,148,128	8,957,403
Promotion of irrigated agriculture	663,200	729,520	802,472	882,719	970,991	4,048,902
Multisectoral coordination	540,000	540,000	540,000	540,000	540,000	2,700,000
Sub Total - Agriculture	19,586,500	25,571,150	24,474,265	25,907,692	27,484,461	123,024,067
Water and Sanitation Hygiene	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Water supply services	90,043,200	99,047,520	108,952,272	119,847,499	131,832,249	549,722,740
Sub Total - WASH	90,043,200	99,047,520	108,952,272	119,847,499	131,832,249	549,722,740
Education	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Support supervision and administration of deworming	600,000	600,000	600,000	600,000	600,000	3,000,000

sessions for the learners						
Capacity building of Early Childhood Development Education (ECDE) teachers on growth monitoring	-	2,100,000	2,100,000	-	-	4,200,000
Provision of anthropometric tools (e.g., weigh scale, Mid-Upper Arm Circumference tape, length height board)	6,300,000	6,300,000	6,300,000	6,300,000	6,300,000	31,500,000
Nutritional assessment for ECDE learners	400,000	400,000	400,000	400,000	400,000	2,000,000
Initiate sustainable school feeding program	103,000,000	103,000,000	103,000,000	103,000,000	103,000,000	515,000,000
Construction of ECDE classrooms with guttering system	44,000,000	44,000,000	44,000,000	44,000,000	44,000,000	220,000,000
Construction of ECDE toilets	29,700,000	29,700,000	29,700,000	29,700,000	29,700,000	148,500,000
Sub Total - Education	184,000,000	186,100,000	186,100,000	184,000,000	184,000,000	924,200,000
Social Protection	Year 1	Year 2	Year 3	Year 4	Year 5	Total Cost
Cash transfer to vulnerable and marginalized including nutrition sensitive cash transfers	147,956,800	145,608,800	143,260,800	140,912,800	138,564,800	716,304,000
Capacity building on nutritional	16,000,000	16,000,000	16,000,000	16,000,000	16,000,000	80,000,000

issues for women, youth, people living with disabilities and those receiving cash transfers						
Community groups economic empowerment through county affirmative funds	146,000,000	151,000,000	156,000,000	161,000,000	166,000,000	780,000,000
Sub Total - Social Protection	309,956,800	312,608,800	315,260,800	317,912,800	320,564,800	1,576,304,000
Grand Total	671,086,500	693,027,470	706,487,337	720,767,991	738,581,510	3,529,950,807



USAID ADVANCING NUTRITION

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