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NUTRITION CAUSAL ANALYSIS



KENYA



MUKURU AND VIWANDANI SETTLEMENTS - NAIROBI COUNTY

Publication : July 2017

FINAL
REPORT



KEY MESSAGES[®]





The author :
Mercy Wahome
Medical sociologist, Link NCA Expert

Mercy Wahome holds a MA in Medical Sociology from the University of Nairobi.

She followed courses in leadership in Strategic Health Communication, (John Hopkins), Baltimore, USA.

She is also a Doula trained by DONA International; therefore she is a special focus on maternal care issues.

She carried out her first Link NCA study with this study in Mukuru slums of Nairobi.

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NUTRITION CAUTION



Key Results

KENYA

MUKURU AND VIWANDANI
URBAN INFORMAL SETTLEMENTS
NAIROBI COUNTY

PUBLICATION : JULY 2017

By **Mercy Wahome** and **Joseph Njuguna**

With the support of **Blanche Mattern** (Link NCA Technical Unit, Action Against Hunger-France), **Sajia Mehjabeen** (Concern Worldwide headquarters), **Edwin Mbugua Maina** (Concern Worldwide Kenya)



TABLE OF CONTENTS

INTRODUCTION AND METHODS	3
UNDERNUTRITION: KEY DATA	6
DATA AND PERCEPTION OF UNDERNUTRITION	6
1.1.1 Anthropometric Results	6
1.1.2 Local Definition and Understanding of Good Nutrition and Malnutrition	8
SEASONAL CALENDAR	9
LOCAL CAUSAL MODEL	11
RISK FACTORS PRIORIZATION	12
RISK FACTORS EVALUATION FROM VARIOUS PERSPECTIVES	12
RISK FACTORS AND RELATED RECOMMENDATIONS FROM THE ANALYST	14
NEXT STEPS	16
CONCLUSION AND RECOMMENDATIONS	18



INTRODUCTION AND METHODS

Introduction

KENYA



Nairobi, the Capital City of Kenya has experienced an exponential growth in the past 60 years with a population of 3.138 million (Census 2009) and a projected estimate of 4.1 million in 2016. As a result of the rapidly increasing population Nairobi, **majority of the people live in the informal settlement** which according to estimates, house approximately **60% of the Nairobi population and cover only 5% of the city's residential land.**

Nairobi is divided into 10 Sub County including Embakasi and Makadara sub counties which account for almost half of the total slum population (49.1%) with majority residing in the larger Mukuru slum ie Mukuru and Viwandani (54.03%).

Slum conditions create greater exposure to adverse health and nutrition outcomes, particularly for women and their children. Maternal and child outcomes are intimately linked. Poor maternal health affects the development of the foetus, the likelihood of a healthy pregnancy and birth outcomes. Maternal caring practices, including sub optimal maternal, infant and young child nutrition (MIYCN) practices from gestation up to two years of life, also contribute to poor and often irreversible child health outcomes. Poor nutrition in mothers and young children leave both vulnerable to opportunistic infections and diseases such as diarrhoea, malaria and acute lower respiratory infections. Indicators for infant mortality (IMR) in Kenya's informal settlements, commonly referred to as the slums are significantly worse than the Nairobi county and national average. Globally slums are one of the worst places to be a mother. In Nairobi slums for instance, maternal and child mortality rates are 50% higher in the slums than the national average, with poor urban children being 3 to 5 times as likely to die before their 5th birthday as their most affluent peers. The burden of malnutrition in the slums remains extremely high in comparison with the national and Nairobi county average with stunting being the most prevalent. A comparative analysis of stunting trends over the past 6 years indicates doubling of stunting rates in the slums (APHRC, 2013). A more recent survey shows that 46% of the children in the urban slums are stunted (Kimani-Murage et al, 2015). A health and nutrition survey conducted in June 2014 in all the major Nairobi slums showed Global Acute Malnutrition (GAM) rate of 5.7% and severe acute malnutrition (SAM) rate of 1.9%. Based on this survey a slum population of approximately 2,400,000 inhabitants, with under-fives representing 16% of the population and a SAM of 1.9%, there were over 7,500 severely malnourished and over 22,000 moderately malnourished children in need of emergency nutrition response. The high population density in urban slums coupled with deplorable living conditions translates into extremely high numbers of malnourished children.

Urban informal settlements, the location of most malnutrition, are complicated; they contain fragmented, less cohesive communities than their rural counterparts. Informal settlement dwellers are mobile, moving between urban and rural settings, and within urban localities. With chronic unemployment and under employment, slum population is highly vulnerable to shocks, from price increases to disease outbreaks and political unrest. The consequences of these are a high disease burden, food insecurity, and ultimately high levels of malnutrition and mortality. Poor

The Link NCA was conducted in the larger Mukuru slum that cuts across Makadara and Embakasi sub counties of Nairobi County. For various reasons which include high poverty index; high slum population; Insecurity; It is cosmopolitan and diversified with numerous socio-cultural groups represented therein; and the level of program activities and intervention by NGOs is minimal. In addition, the prevalence of stunting was very high and high of absolute numbers of children under five with acute malnutrition was among the highest in Nairobi. The Maternal Newborn and health Indicators are also quite poor.



Figure: Google Map of Mukuru Slums indicating the Project site

Objectives

The Link NCA study specific objectives include:

- To estimate the prevalence of known risk factors for under-nutrition among the population and key “nutrition vulnerable groups”
- To identify main causes of under-nutrition in order to inform the technical strategy and programs for the prevention of the same at a local level



- To determine which causal pathways of malnourishment are likely to explain most under nutrition cases in the target area
- To develop an “emic” definition and understanding of good nutrition, malnutrition and believed causes of under nutrition within the target population
- To understand the local seasonal and historical pathways to stunting
- To support technical advocacy on causes of stunting so as to support technical strategy.

Methods

The Link NCA began in September 2016 with a review of current literature and secondary data to draft hypothesized causal risk factors for under-nutrition in Mukuru slum. An initial Stakeholder Technical Workshop with representatives from various sectors and organisations was held in October 2016 to validate the hypothesised causal risk factors for field testing. The data collection began in December 2016 and ran for 10 weeks in total. The Link NCA employs a mixed-methods approach, combining both qualitative and quantitative data collection. Focus Group Discussions (FGDs) and Key Informant Interviews (KIs) were conducted in 4 communities, and a Risk Factor Survey was conducted in 32 clusters, 2 in Mukuru and 2 in Viwandani with anthropometric measurements taken of children aged 6-59 months, and females aged 15-49 years. Following data analysis, results were presented for each hypothesized causal risk factors at a final Stakeholder Technical Workshop in March 2017. Through multi-sector working group, results were validated and a final rating was assigned to each of the causal risk factors based on: secondary data, Risk Factor Survey data, the evidence base for the strength of association between the risk factor and under nutrition, seasonal patterns/historical trends, qualitative data, and risk factor ranking by the communities (full explanation of Criteria can be found in the Report).

Findings

Findings from the Link NCA highlighted three major factors contributing to the high stunting:

- (a) Increasing number of non-optimal day care centers**
- (b) lack of knowledge on the food diversification by the caregivers** and
- (c) unhealthy environment** leading to high rates of morbidity.

The findings further revealed that important contributory factors were non-optimal psychosocial care for women, gender based violence and micronutrient deficiencies among pregnant and lactating women. Minor factors that were linked to stunting included low uptake of family planning, high cases of HIV/AIDs and TB and non-optimal maternal healthcare.



UNDERNUTRITION: KEY DATA

DATA AND PERCEPTION OF UNDERNUTRITION

1.1.1 Anthropometric Results

During the Link NCA risk factor survey, anthropometric studies were not undertaken since a SMART nutrition survey had already been conducted in 2014. The summary of the SMART Nutrition survey and secondary data are presented in the table below.

Tab. 1. Anthropometric results from the SMART nutrition survey 2014

ANTHROPOMETRIC INDICATORS			
INDICATOR	Overall	Better Off Slums	Worse Off Slums
PREVALENCE OF GLOBAL MALNUTRITION (<-2 Z-SCORE AND/OR OEDEMA)	(53) 5.7% (4.2- 7.6 95% CI)	(20) 4.4% (2.7- 6.9 95% CI)	(33) 6.9% (4.7-10.0 95% CI)
PREVALENCE OF MODERATE MALNUTRITION (<-2 Z-SCORE AND >=-3 Z-SCORE, NO OEDEMA)	(35) 3.7% (2.7- 5.3 95% CI)	(15) 3.3% (1.8- 5.8 95% CI)	(20) 4.2% (2.7- 6.3 95% CI)
PREVALENCE OF SEVERE MALNUTRITION (<-3 Z-SCORE AND/OR OEDEMA)	(18) 1.9% (1.1- 3.2 95% CI)	(5) 1.1% (0.4- 3.0 95% CI)	(13) 2.7% (1.5- 4.9 95% CI)



PREVALENCE OF GLOBAL UNDERWEIGHT	(120) 12.9% (10.5-15.9 95% CI)	(61) 13.5% (9.7-18.5 95% CI)	(59) 12.4% (9.4-16.1 95% CI)
PREVALENCE OF MODERATE UNDERWEIGHT	(100) 10.8% (8.6-13.4 95% CI)	(54) 11.9% (8.5-16.6 95% CI)	(46) 9.7% (7.2-12.8 95% CI)
PREVALENCE OF SEVERE UNDERWEIGHT	(20) 2.2% (1.2- 3.7 95% CI)	(7) 1.5% (0.7- 3.5 95% CI)	(13) 2.7% (1.3- 5.6 95% CI)
PREVALENCE OF GLOBAL STUNTING	(313) 33.5% (30.1-37.2 95% CI)	(154) 33.8% (29.1-39.0 95% CI)	(160) 33.4% (28.3-38.9 95% CI)
PREVALENCE OF MODERATE STUNTING	(201) 21.5% (19.0-24.4 95% CI)	(100) 22.0% (18.2-26.3 95% CI)	(101) 21.1% (17.6-25.0 95% CI)
PREVALENCE OF SEVERE STUNTING	(112) 12.0% (9.7-14.8 95% CI)	(54) 11.9% (8.6-16.2 95% CI)	(59) 12.3% (9.1-16.5 95% CI)
PREVALENCE OF GLOBAL MALNUTRITION (MUAC AND/OR OEDEMA)	(31) 3.3% (2.3- 4.9 95% CI)	(15) 3.3% (2.0- 5.4 95% CI)	(16) 3.3% (1.8- 6.0 95% CI)
PREVALENCE OF MODERATE MALNUTRITION (MUAC)	(17) 1.8% (1.1- 3.1 95% CI)	(9) 2.0% (1.1- 3.6 95% CI)	(8) 1.7% (0.7- 4.1 95% CI)
PREVALENCE OF SEVERE MALNUTRITION (MUAC AND/OR OEDEMA)	(14) 1.5% (0.8- 2.7 95% CI)	(6) 1.3% (0.5- 3.6 95% CI)	(8) 1.7% (0.8- 3.5 95% CI)

Tab. 1. Anthropometric results from the SMART nutrition survey 2014 for the two slums of the study area

SLUM	GAM	STUNTING	UNDERWEIGHT
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VIWANDANI	9.4%(8.93 - 9.87)	43.4% (41.23 - 45.57)	9.8%(9.31 - 10.29)
MUKURU	8.6% (8.17 - 9.03%)	31%(29.45 - 32.55)	14.5%(13.78 - 15.23)

Source: SMART Nutrition Survey 2014

Data from the SMART survey 2014 have been used for this study. These data were considered to be enough recent (less than 2 years at the time of the study) and of good quality. It was also considered that no major event had had any significant impact in the study area from this moment.

Moreover, it would have been difficult to obtain representative data from 6-59 months age group in the area via the SMART methodology. Indeed, security conditions do not allow access to the study area in the evenings, and during daytime, most caregivers work and place their children in local kindergardens or close relatives; thus making it difficult to locate the children of a household but also to get consent from the parents.

1.1.2 Local Definition and Understanding of Good Nutrition and Malnutrition

Lack of knowledge on the importance of dietary diversity seems to be an issue in the slums. Although the findings revealed that the community in urban slums of Mukuru and Viwandani recognizes lack of balanced diet as the main cause of child under nutrition but for the majority 'balanced diet' only means meals that has protein e.g. fish and meat. On further probing it was also evident that majority of the individual interviewed during the qualitative enquiries and the participants at the rating exercise did not know the various categories of food, e.g., most categorized *Mrenda*, *kales*, *managu* and other traditional vegetables as carbohydrate.

Majority were able to recognize some manifestation of acute malnutrition like kwashiorkor and marasmus and its causes as lack of balanced diet and diseases like diarrhea but could not identify chronic malnutrition as a form of malnutrition. They all described malnutrition as a condition that affected both adults and children in the urban slums due to lack of enough food at the household. They described undernourished children as *"...very weak, their face and skin is usually dry and they look old than their actual age. Children have protruding stomachs, and most of them are unhappy and often cry for no apparent reason, and delayed milestones for example when his age mates are walking you find such a child is still crawling, the color of the hair is brown. The adults are usually weak with low self-esteem as they despise themselves."*, Rating exercise at Viwandani

The CSI is based on the many possible answers to one single question: "What do you do when you don't have adequate food, and don't have the money to buy food?"¹

The results showed that 57.0% (n=403) reported to apply a reducing coping strategy to handle the critical shortage of food within the household. Among the reducing coping strategies reported by the households, the most common include relying on less expensive food/cheap food (93.6%, n=377), purchase food on credit (81.9%, n=330), limiting the portion size of food (56.6%, n=228), reducing the number of daily meals (51.6%, n=208), borrowing/kind ship support (44.4%,



¹Coping Strategies Index: Field Methods Manual. Copyright © 2008 Cooperative for Assistance and Relief Everywhere, Inc. (CARE). Used by permission.



n=179), restrict adult consumption for children (44.2%, n=178) and finally (10.9%, n=44) skip entire day without food. Coping strategy index was found to be at 34.2.

Though restricting adult consumption for children and skipping entire day without food scored low, they are indicators of more severe situation of food crisis in the household level. In situations when one doesn't have a job, respondents said they were comfortable eating at the neighbours with the understanding that everyone can be in the same situation. Taking food on credit at the shopkeepers and vegetable vendors was found to be a common practice.

SEASONAL CALENDAR

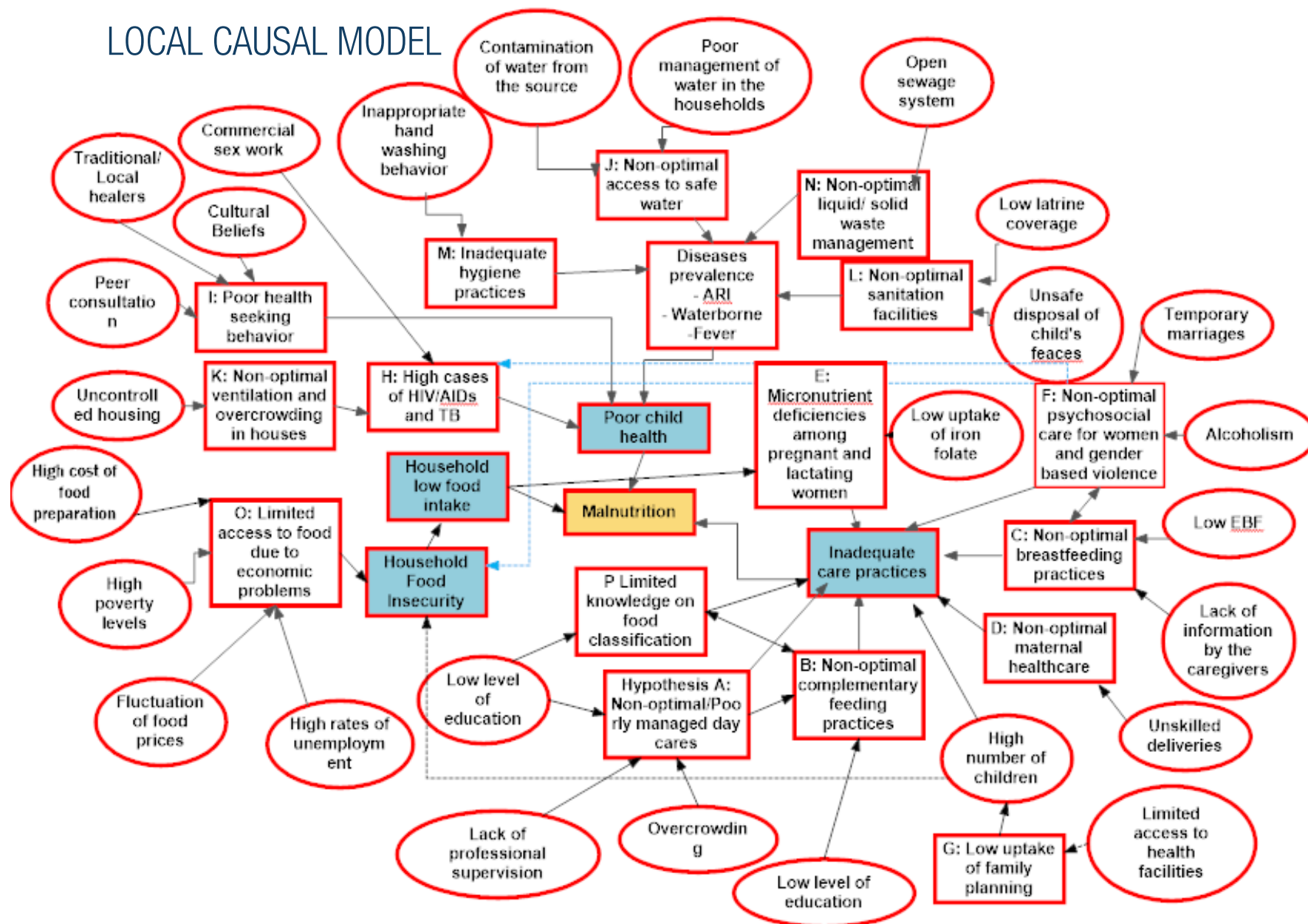
SEASONAL VARIATIONS	J	F	M	A	M	J	J	A	S	O	N	D
SEASONAL VARIATIONS OF HUNGER												
LOW AVAILABILITY OF FOOD	x	x									x	x
CHARACTERISTICS OF EACH SEASON												
RAINY SEASON			x	x	x				x	x	x	
COLD SEASON							x	x				
HOT SEASON	x	x										
WATER AVAILABILITY	x	x	x	x	x	x	x	x	x	x	x	x
FESTIVE SEASON				x					x			x
HARVEST OF STAPLE FOOD (MAIZE, BEANS ETC.)								x				
HARVEST OF FRUITS/VEGETABLE (SUKUMA WIKI, CABBAGE)					x	x	x	x	x	x		
HIGH MARKET FUEL PRICE	x	x									x	x
HIGH MARKET FOOD PRICE	x	x									x	x



EMPLOYMENT OPPORTUNITIES	x	x										
SEASONAL OCCURRENCE OF CLIMATE-RELATED HAZARDS												
DROUGHTS	x											x
FLOODS				x						x		
SEASONAL OCCURRENCE OF OTHER HAZARDS												
DIARRHEA				x	x					x	x	
CHICKENPOX								x				
MALARIA		x										
TYPHOID				x	x							
MEASLES								x				
SEASONAL ACTIVITIES FOR THE MAIN LIVELIHOOD STRATEGIES IN THE COMMUNITY												
CASUAL LABOR IN THE COMMUNITY/INDUSTRIES	x	x	x	x	x	x	x	x	x	x		
HOLIDAY/FESTIVALS												
WEDDINGS								x				
ELECTIONS								x				
SCHOOLING PERIOD/SCHOOL FEES	x				x				x			
OTHER												



LOCAL CAUSAL MODEL





RISK FACTORS PRIORORIZATION

RISK FACTORS EVALUATION FROM VARIOUS PERSPECTIVES

RISK FACTORS	PREVALENCE FROM SECONDARY DATA/LITERATURE REVIEW (QUANTITATIVE)	PREVALENCE FROM THE RISK FACTOR SURVEY	STRENGTH OF ASSOCIATION WITH UNDER-NUTRITION FROM LITERATURE REVIEW	SEASONALITY OF RISK FACTOR	FINDINGS FROM THE QUALITATIVE SURVEY	COMMUNITY RATING EXERCISE	INTERPRETATION
HYPOTHESIS A: NON-OPTIMAL CARE FOR CHILDREN/POORLY MANAGED DAY CARES	+++	N/A	N/A	+++	+++	++	major
HYPOTHESIS B: NON-OPTIMAL COMPLEMENTARY FEEDING PRACTICES	++	++	++	+++	+++	+++	major
HYPOTHESIS C: NON-OPTIMAL BREASTFEEDING PRACTICES	+++	+++	++	+++	+++	++	major
HYPOTHESIS D: NON-OPTIMAL MATERNAL HEALTHCARE.	+	+	n/a	+	+	+	minor
HYPOTHESIS E: MICRONUTRIENT DEFICIENCIES AMONG PREGNANT AND LACTATING WOMEN	+	+	++	+	+	+	important
HYPOTHESIS F: NON-OPTIMAL PSYCHOSOCIAL CARE FOR WOMEN AND GENDER BASED VIOLENCE	+	+	n/a	++	++	++	important
HYPOTHESIS G: LOW UPTAKE OF FAMILY PLANNING	+	+	n/a	+	+	+	minor



RISK FACTORS	PREVALENCE FROM SECONDARY DATA/LITERATURE REVIEW (QUANTITATIVE)	PREVALENCE FROM THE RISK FACTOR SURVEY	STRENGTH OF ASSOCIATION WITH UNDER-NUTRITION FROM LITERATURE REVIEW	SEASONALITY OF RISK FACTOR	FINDINGS FROM THE QUALITATIVE SURVEY	COMMUNITY RATING EXERCISE	INTERPRETATION
HYPOTHESIS H: HIGH CASES OF HIV/AIDS AND TB	++	-	+	+	+	+	minor
HYPOTHESIS I: POOR HEALTH SEEKING BEHAVIOR	++	++	+	++	+++	++	major
HYPOTHESIS J: NON-OPTIMAL ACCESS TO SAFE WATER	+++	+++	+	+++	+++	+++	major
HYPOTHESIS K: NON-OPTIMAL VENTILATION AND OVERCROWDING IN HOUSES	+++	++	n/a	+++	+++	++	major
HYPOTHESIS L: NON-OPTIMAL SANITATION FACILITIES	+++	+++	+	+++	+++	+++	major
HYPOTHESIS M: INADEQUATE HYGIENE PRACTICES	+++	+++	+	+++	+++	+++	major
HYPOTHESIS N: NON-OPTIMAL LIQUID/ SOLID WASTE MANAGEMENT	+++	+++	+	+++	+++	+++	major
HYPOTHESIS O: LIMITED ACCESS TO FOOD DUE TO ECONOMIC PROBLEMS	+++	+++	+	+++	+++	+++	major
HYPOTHESIS P LIMITED KNOWLEDGE ON FOOD GROUP	n/a	n/a	n/a	+++	+++	+++	major



RISK FACTORS AND RELATED RECOMMENDATIONS FROM THE ANALYST

RECOMMENDATION	RISK FACTOR	BENEFICIARY	COMMUNITY RATING EXERCISE	INTERPRETATION
FORMULATION OF NATIONAL AND/OR COUNTY LEVEL STANDARD OPERATING PROCEDURES TO REGULATE THE SET UP AND OPERATION OF THE DAY CARE CENTERS	Hyp A: Non-optimal care for children/Poorly managed day cares	Care Giver	++	major
DEVELOPMENT OF SBCC MATERIALS TO PROMOTE PROPER WEANING FOODS AND DIETARY DIVERSITY	Hypothesis B: Non-optimal complementary feeding practices	Care Giver	+++	major
INTEGRATION OF NUTRITIONAL COUNSELLING SERVICES WITH CHILD WELFARE SERVICES AT THE HEALTH FACILITY LEVEL AND IN THE COMMUNITY		Care Giver		
PROMOTION OF INNOVATIVE AND EASILY EFFECTIVE METHODS TO EXPRESS AND STORE BREAST MILK FOR WORKING MOTHERS TO ENSURE EXCLUSIVE BREASTFEEDING	Hypothesis C: Non-optimal breastfeeding practices	Care Giver	++	major
PROMOTION OF THE BENEFITS OF CONTINUED BREASTFEEDING UP TO 2 YEARS AND FAMILY PLANNING TO ENSURE ADEQUATE CHILD SPACING.				
PROMOTION OF THE IMPORTANCE OF 4 ANC VISITS, SKILLED DELIVERY AND IFAS DURING PREGNANCY AT THE HEALTH AND COMMUNITY LEVEL	Hyp D: Non-optimal maternal healthcare.	Care Giver	+	minor
ROUTINE AND REGULAR CAMPAIGNS TO SUPPLEMENT PREGNANT MOTHERS' DIETS E. MALEZI BORA	Hyp E: Micronutrient deficiencies among pregnant and	Community, PLW	+	important



RECOMMENDATION	RISK FACTOR	BENEFICIARY	COMMUNITY RATING EXERCISE	INTERPRETATION
<p>ENFORCEMENT OF THE GBV SERVICES AND REGULATIONS AND PROMOTION OF OPENNESS ON GENDER VIOLENCE E.G. "SITAKIMYA"(I WONT KEEP QUIET CAMPAIGN</p> <p>IMPROVEMENT OF FP CLINIC OPERATING TIMES TO CATER FOR THE WORKING WOCBA</p> <p>ADAPTATION OF NATIONAL GUIDELINES ON EMTCT, HIV, TB IN THE INFORMAL SETTLEMENTS</p> <p>FULL SUBSIDIZATION(ZERO-RATING) OF PRIMARY CARE SERVICES IN INFORMAL SETTLEMENTS; COMMUNITY AWARENESS ON IMPROPER HEALTH PRACTICES E.G. REMOVAL OF PLASTIC TEETH</p> <p>DISTRIBUTION OF WATER TREATMENT AGENTS; AWARENESS CREATION OF WATER STERILIZATION TECHNIQUES; SUBSIDIZATION OF WATER SOURCES</p> <p>USE OF SIMPLE CONSTRUCTION TECHNIQUES TO ENSURE ADEQUATE VENTILATION; HOUSING REGULATION ENFORCEMENT</p>	lactating women			
	Hyp F: Non-optimal psychosocial care for women and gender based violence	Community	++	important
	Hyp G: Low uptake of family planning	Community	+	minor
	Hyp H: High cases of HIV/AIDs and TB	Community	+	minor
	Hyp I: Poor health seeking behavior	Community	++	major
	Hyp J: Non-optimal access to safe water	Community	+++	major
	Hyp K: Non-optimal ventilation and overcrowding in houses	Community	++	major



RECOMMENDATION	RISK FACTOR	BENEFICIARY	COMMUNITY RATING EXERCISE	INTERPRETATION
BUILDING OF LATRINES AND WATER DISPOSAL PITS; FACILITATION OF SANITATION AND HYGIENE COMMITTEES, TO INCLUDE CLEARING COMMUNITIES OF RUBBISH FROM COMMUNAL AREAS, AND PROMOTION OF CONSTRUCTION OF LATRINES AND HAND-WASHING POINTS	Hyp L: Non-optimal sanitation facilities	Community	+++	major
HANDWASHING STATIONS MADE FROM LOCALLY AVAILABLE RESOURCES (E.G. HAND WASHING STATIONS)	Hypothesis M: Inadequate hygiene practices	Community	+++	major
PROMOTION OF SOAP USE FOR BATHING TO INCREASE SOAP CONTACT POINTS		Community		
IMPROVED GARBAGE COLLECTION SERVICES;	Hyp N: Non-optimal liquid/solid waste management	Community	+++	major
MICRO GARDENS, HYDROPONIC FARMING; USE OF CHEAP BUT NUTRITIOUS ALTERNATIVES	Hyp O: Limited access to food due to economic problems	Community	+++	major
NUTRITION COUNSELLING; USE OF SCORE CARDS	Hyp P Limited knowledge on food group	Community	+++	major

NEXT STEPS

Implementation of recommendations: A taskforce comprising of representatives from the County departments of health, agriculture, social services and implementing partners will be charged with the responsibility of ensuring that the recommendations are implemented within the required timelines. The multi-stakeholders present in the workshop emphasized on the importance of each one taking a role in implementing the identified interventions.



In addition, one member from Concern Worldwide and one member from the MoH will monitor the implementation of the response analysis road map.

Conduct countywide Link NCA: It will also be essential to mobilize resources to conduct a Link NCA in the rest of the County so as to ensure an overall picture of the County and come up with responses relevant to the local context.



CONCLUSION AND RECOMMENDATIONS

Conclusions

The Link NCA results provide a number of actionable risk factors for undernutrition, especially stunting in Nairobi County.

1. The importance of **qualitative information** to validate the findings of the quantitative surveys was again confirmed through this pilot, which in many cases might not give representative picture of the situation. For example, the quantitative data showed that most of the respondents were married, but during qualitative data collection it was revealed that by marriage they meant 'living relationship' where the man had no responsibility to look after the children or wife and can walk out of the relationship any time without any obligation. The **qualitative data helps to understand the quantitative information** and gives a clear picture of what is happening behind those numbers and to understand the context before deciding on which intervention to use in a particular setting.

2. The **psychological aspect of the mother or caregiver** and the subsequent effect on child caring practices and overall nutrition status of the children needs to be considered while designing a program in any informal settlements. It was evident from the findings that the different psychological profiles of the mothers are affecting the caring practices. The **women in the slum areas are usually overworked and usually don't have any support system. Domestic violence** is very common and sometime they even starve their children to punish their husbands.

3. The **importance of daycare center in an urban setting and the influence they have on the nutritional status of the children.** Daycare is a great necessity in the slum areas as they serve as a safe place for the working parents. However, most of the cases these centers are managed by unskilled women or older women who can't go out for work. The centers are usually overcrowded, unhygienic and poorly managed.

4. **Limited knowledge about balanced diet among the respondents.** The participants in the workshop agreed that the findings were surprising as it's usually assumed that the people living in urban areas usually have general understanding about balanced diet. However, the study shows that most of the HH thought balanced diet includes only meat and fish. They also thought **Kwashiorkor was a sign that the child was healthy** and it was common in community. However, they do know that balanced diet is behind child malnutrition.

5. High level diffusion of cultural practices and **subsequent adaptation of harmful practices**, which was surprising in urban set up. Slums are composed of mixed tribes and they adapt cultural beliefs and practices from each other and some of the acquired beliefs are also affecting their health seeking behaviors and is life threatening. **The removal of child teeth** (plastic teeth) is one of them. People usually believe that plastic teeth cause diarrhea and ARI. Majority of the community members branded these teeth 'plastic teeth' which they argue are bad omen which can affect the baby's health and eventually kill. Special traditional doctors are consulted and use crude materials like needles and salt to remove the teeth which sometimes results in **severe bleeding and infection** and sometimes the child even can't eat anything for days.

Diarrhea and vomiting is very common in the slums and there are also some harmful cultural practices around them. For example, one of the respondents mentioned that if a baby had sunken head (usually from dehydration), they will place a Hawk in child's head and if it flies, they assume that the child will be ok.

6. The influence of **different cultural practices on the food choices:** The new 'slum tribe' adapt different cultural beliefs and practices from each other which sometimes have negative impacts on their food choices. i.e., some parts of animals are not eaten by some of the people.

7. Poor health seeking behaviors: Although services were available within reach, the general health seeking behavior of the slum residents are usually poor. For example, the **deworming rate was very**



low and only 3% were dewormed thrice a year. Different factor such as clinic operating hours and influence of harmful cultural practices are behind this.

8. **Heavy reliance on street foods:** Most of the households regularly buy foods from the vendors. Usually the main reasons behind these practices are the limited space in the houses, workload and the cost of preparing food versus buying it from the vendors. Usually women do not want to say that they buy food because the men don't like it. The children confirmed that most of them ate chapatti and soups bought from the street vendors.

9. The slums also have very **intrinsic social support system** which helps them to cope, from outside it might not be apparent and not very visible, but it exists. Sometimes people go to the neighbor to share food and it was very common. They will add water to the bean and will share.

10. **Poor breastfeeding practices.** Most of the time mothers have the knowledge and even the attitude to practice exclusive breastfeeding but as most of the mothers are working during the day, they only have chance to breastfed at night.

11. **Sanitation facilities** are a major determinant of rent of the houses. House close to latrines costs more. There is an initiative by fresh life to charge toilets use and they clean it regularly and turns the waste into fertilizer. However, usually the child is not considered for toilet use and so the children just openly defecate, it's considered as normal and can be seen everywhere. There were some other initiatives where Oxfam have given buckets but it was not effective as the excreta was hard to dispose of, had issues with privacy and there is no space in the house where the bucket can be stored.

12. Although it might seem that Link NCA is very nutrition focused, the results here clearly indicated that the assessment takes into account the **underlying causes of malnutrition and explores the situation with a nutrition sensitive lens.**

13. The information about **water governance** is crucial in an urban context and can be difficult to measure sometimes.

Recommendations

Prior to implementation of the programme, it is recommended to spend time to ensure **community buy-in**. Some communities were less inclined to participate in the Link NCA survey, and there were similar reports from Health staff for community awareness activities.

Additionally, an overarching recommendation is the consideration of all caregivers (mothers, fathers, grandmothers, possibly adolescent siblings) for activities to ensure secondary caregivers are improving practices and fathers are support wives in good practices. In some communities, knowledge is not the issue but there are barriers to behaviour change, therefore **SBCC approaches should be carefully designed** to provide optimal behaviour change, and progress of positive behaviours should be monitored with strategies adapted and improved with operational learning and observations. The **government's new approach of Baby Friendly Community Initiative (BFCl)** should be adopted in order to promote the best infant and young child feeding practices.

It is also recommended that the programme contain a Food Security and Livelihood (FSL) component to improve the capacity and ability of households to generate sustainable and reliable incomes to improve household wealth, which impacts on a number of risk factors, as well as providing alternative coping mechanisms that taking loans or selling assets, and reduces issues with food access at the household and subsequently improved child and household nutritional status. Overcrowding needs to be addressed as a matter of urgency. There is need to reinforce the existing policies that controls and limits the number of houses constructed in a given area.

Other key recommendations for improving nutrition situation among slum dwellers include tightening rules that govern the operation of the day care centers, targeting households for health and Nutrition community education through models and more engagement by stakeholders on waste management.

Link NCA

ANALYSIS



The Link NCA methodology was developed by Action Against Hunger – France with technical support from our scientific committee including multi-sectorial experts and eminent scientists from Tufts University | Friedman School of Nutrition Science and Policy, the French Institute for Development Research (IRD), and World Food Program (WFP).

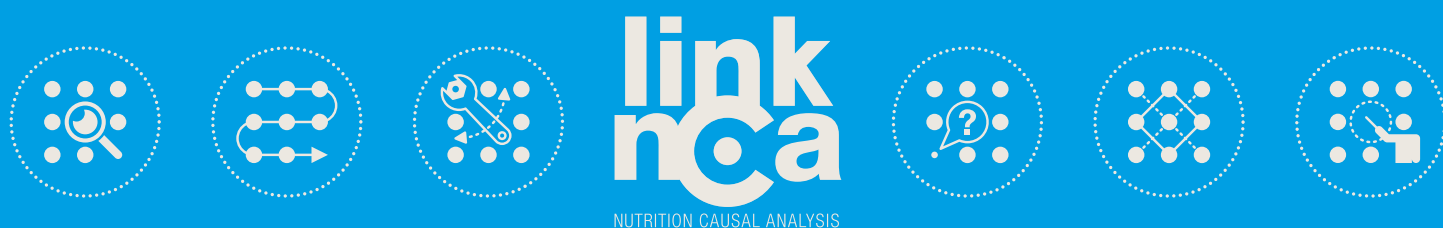
Its development was made possible by the funding provided by:



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More information on www.linknca.org



Author : **Mercy Wahome**, *Medical Sociologist, Link NCA Expert*



For further information about the design
or implementation of a Link NCA,
visit the dedicated website:
www.linknca.org

To communicate with an expert
about any Link NCA-related questions:
linknca@actioncontrelafaim.org



KEY MESSAGES